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Cheryl S. Al-Mateen
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Editors

Handbook of Mental Health in African American Youth

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Nirbhay N. Singh
Medical College of Georgia
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Editors
Alfiee M. Breland-Noble
Department of Psychiatry
Georgetown University Medical Center
Washington, DC, USA

Nirbhay N. Singh
Department of Psychiatry and Health Behavior
Medical College of Georgia
Augusta University
Augusta, GA, USA

Cheryl S. Al-Mateen
Department of Psychiatry
Virginia Treatment Center for Children
Virginia Commonwealth University School of Medicine
Richmond, VA, USA

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To Richard, Morgann, Myles, Micah, Fitzgerald,
Mattie, and Day—the Breland-Noble family
your faith in me is unwavering.
To Mattie, Flora, Alice and Whit, in memoriam,
you are with me in every moment.
To Dr. Bell for being a bedrock

Alfiee

To my husband, Bakeer, for everything.
To my parents, Benni and Carole, for instilling
in me the drive to always learn and do more.
To my children, Benjamin and Katherine, just because.

Cheryl

To my beloved mentor, Ivan L. Beale.

Nirbhay

Preface

The *Handbook of Mental Health in African American Youth* was designed to fill a significant void in the child and adolescent mental health literature. Since the advent of research focused specifically on the mental and behavioral health needs of children and adolescents that emerged in the mid-1980s, the research base has grown and recognized children and adolescents as a unique population with important needs. Due in part to the limited size of the field of child and adolescent mental health, new research has emerged slowly and has focused primarily on the epidemiology of mental illness and the development of new interventions to treat illnesses in this population. Over the past 20–25 years, however, research on child and adolescent mental health has grown to include a focus on racially diverse youth with a particular focus on health disparities. This book presents research in the area of mental health disparities by examining the unique challenges and strengths of African American youth.

Many African American youth face a number of challenges in their developmental trajectories, yet they possess many strengths that aid them in positive development even in the face of significant difficulties including, but not limited to, exposure to racism, discrimination, lack of access to important resources, and community violence. This book is intended to help researchers, practitioners, educators, and advocates understand the needs of this population from both a culturally sensitive and culturally relevant perspective. To achieve this goal, the book is divided into three major sections including one focused on the nature of mental illness in African American youth, another focused on varied approaches to treating mental illness (including tested treatments and potentially culturally relevant treatments), and a third describing specific interventions and their outcomes. The book ends with a summary and a discussion of future directions. Overall, this book presents an important overview of the evidence base related specifically to the mental health of African American youth, recognizes the significant contributions of the many researchers and clinicians currently working to improve care for this population, and highlights the many areas urgently in need of research to reduce the mental health disparities faced by this population.

This book was made possible by the contributions of the many authors with a passion for mental health research and clinical care related to African American youth. As editors, we wish to thank these authors for their dedication to this work and for the time and effort they shared with us through researching, writing, and editing their chapters. We are grateful for the care they exerted in presenting a full picture of African American youth and for their willingness to teach us about the many ways in which professionals, families, advocates, and youth themselves are working to improve care for this population.

Washington, DC, USA	Alfiee M. Breland-Noble
Richmond, VA, USA	Cheryl S. Al-Mateen
Augusta, GA, USA	Nirbhay N. Singh

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Contributors

Cheryl S. Al-Mateen Department of Psychiatry, Virginia Treatment Center for Children, Virginia Commonwealth University School of Medicine, VA, USA

Shervin Assari Department of Psychiatry, University of Michigan, Ann Arbor, MI, USA

My K. Banh Department of Psychiatry, Georgetown University Hospital, Washington, DC, USA

Faye Z. Belgrave Department of Psychology, Virginia Commonwealth University, Richmond, VA, USA

Brittany M. Berry Department of Psychology, Virginia Commonwealth University, Richmond, VA, USA

Cheryl A. Boyce U.S. Department of Health and Human Services, National Institute on Drug Abuse, National Institutes of Health, MD, USA

Alfiee M. Breland-Noble Department of Psychiatry, Georgetown University, Washington, DC, USA

Erica V. Buckner Department of Psychological and Brain Sciences, Center for Mental Health Disparities, University of Louisville, Louisville, KY, USA

Cleopatra Howard Caldwell Department of Health Behavior and Health Education, School of Public Health, University of Michigan, Ann Arbor, MI, USA

L. Kevin Chapman Department of Psychological and Brain Sciences, Center for Mental Health Disparities, University of Louisville, Louisville, KY, USA

Nikeea Copeland-Linder Child and Adolescent Psychiatry, Bloomberg Children's Center, The Johns Hopkins Hospital, Baltimore, MD, USA

Phillippe B. Cunningham Department of Psychiatry and Behavioral Sciences, Family Services Research Center, Medical University of South Carolina, Charleston, SC, USA

Darlene M. Davis Department of Psychological and Brain Sciences, Center for Mental Health Disparities, University of Louisville, Louisville, KY, USA

Ryan C.T. DeLapp Department of Psychological & Brain Sciences, Center for Mental Health Disparities, University of Louisville, Louisville, KY, USA

Elishia L. Durrett Department of Psychological and Brain Sciences, Center for Mental Health Disparities, University of Louisville, Louisville, KY, USA

Laura D. Eddy Department of Psychology, Virginia Commonwealth University, Richmond, VA, USA

Beata DaNine Fleming Department of Psychiatry and Behavioral Sciences, Family Services Research Center, Medical University of South Carolina, Charleston, SC, USA

Scott L. Graves Jr. Department of Counseling, Psychology and Special Education, School of Education, Pittsburgh, PA, USA

Shannon M. Haworth Association for University Centers on Disabilities, Bethesda, MD, USA

Heather A. Jones Department of Psychology, Virginia Commonwealth University, Richmond, VA, USA

Sharon F. Lambert Department of Psychology, The George Washington University, Washington, DC, USA

Jessica K. Malloy Department of Psychiatry, Virginia Treatment Center for Children, Virginia Commonwealth University School of Medicine, VA, USA

Catherine J. Mills Independent Practice, Richmond, VA, USA

Sandra J. Mullen Department of Psychiatry, Virginia Treatment Center for Children, Virginia Commonwealth University School of Medicine, VA, USA

Kayla D. Nichols Department of Counseling, Psychology and Special Education, School of Education, Pittsburgh, PA, USA

Donald P. Oswald Partnership for People with Disabilities, Virginia Commonwealth University, Richmond, VA, USA

Carisa Perry-Parrish Child and Adolescent Psychiatry, Bloomberg Children's Center, The Johns Hopkins Hospital, Baltimore, MD, USA

Annie E. Rabinovitch Department of Psychology, Virginia Commonwealth University, Richmond, VA, USA

Kenneth M. Rogers Department of Psychiatry, Greenville Health System/University of South Carolina School of Medicine-Greenville, Greenville, SC, USA

Jeff Randall Medical University of South Carolina, Charleston, SC, USA

Stacy R. Ryan University of Texas Health Science at San Antonio, San Antonio, TX, USA

Broderick A. Sawyer Department of Psychological and Brain Sciences, Center for Mental Health Disparities, University of Louisville, Louisville, KY, USA

Erica M.S. Sibinga Child and Adolescent Psychiatry, Bloomberg Children's Center, The Johns Hopkins Hospital, Baltimore, MD, USA

Nirbhay N. Singh Department of Psychiatry and Health Behavior, Medical College of Georgia, Augusta University, Augusta, GA, USA

Regine M. Talleyrand Counseling and Development Program, Graduate School of Education, George Mason University, Fairfax, VA, USA

Rongrong Tao Department of Psychiatry, Georgetown University Hospital, Washington, DC, USA

Erlanger A. Turner Department of Social Sciences, University of Houston-Downtown, Houston, TX, USA

Lindsey Webb Child and Adolescent Psychiatry, Bloomberg Children's Center, The Johns Hopkins Hospital, Baltimore, MD, USA

Sala Webb Webb Psychiatric Consulting, Richmond, VA, USA

Monnica T. Williams Department of Psychological and Brain Sciences, Center for Mental Health Disparities, University of Louisville, Louisville, KY, USA

Stephanie A. Wilson Department of Psychology, Temple University, Philadelphia, PA, USA

About the Editors

Alfiee M. Breland-Noble is the Director of the African American Knowledge Optimized for Mindfully Healthy Adolescents (AAKOMA) Project and Associate Professor of Psychiatry at the Georgetown University Medical Center, Washington, D.C. Her prior academic appointments were at Michigan State University and in the Department of Psychiatry at the Duke University Medical Center. She completed her training at Howard University (B.A.), New York University (M.A.), the University of Wisconsin-Madison (Ph.D.), and the Duke University School of Medicine (MHSc.). Dr. Breland-Noble is an adolescent and child psychologist and researcher in academic medicine with a long track record of external and federal research funding. She is a recognized expert in adolescent depression and racial disparities in mental health as evidenced by her appointments to the *American Psychological Association Treatment Guideline Development Panel for Depression Across the Lifespan* and the *Patient Centered Outcomes Research Institute (PCORI) Addressing Disparities National Advisory Panel.* She is an Associate Editor of the *Journal of Child and Family Studies* and a Consulting Editor for *Professional Psychology: Research and Practice*.

Cheryl Singleton Al-Mateen is a Professor in the Department of Psychiatry and Associate Professor in the Department of Pediatrics at Virginia Commonwealth University School of Medicine in Richmond, Virginia. She is a child and adolescent psychiatrist and serves as Clerkship Director in Psychiatry for VCUSOM. She is currently Interim Medical Director of the Virginia Treatment Center for Children (VTCC) of the VCU Health System. A graduate of Howard University and the Howard University College of Medicine. Dr. Al-Mateen completed her psychiatry residency and child psychiatry fellowship at Hahnemann University in Philadelphia. She is Board Certified in General, Child and Adolescent, and Forensic Psychiatry. A recipient of the Leonard Tow Humanism award and the VCU Presidential Award for Community Multicultural Enrichment, she is past Chair of the School's Multicultural Affairs Committee and serves as Co-chair of the Diversity and Culture Committee of the American Academy of Child and Adolescent Psychiatry. She has received the Excellence in teaching award from the VTCC Trainees and the Service and Dedication awards from the VCUHS psychiatry residents and from the VTCC trainees. She has also received the Outstanding Teacher Certificate Award from VCU medical students. Dr. Al-Mateen serves on the editorial board of the *Journal of Child and Family Studies*. Her interests are in cultural competency in medical education, vicarious traumatization, and general academic child and adolescent psychiatry.

Nirbhay N. Singh is Clinical Professor of Psychiatry and Health Behavior at the Medical College of Georgia, Augusta University, Augusta, GA, and with MacTavish Behavioral Health, in Raleigh, NC. Prior to his current appointment, he was a Professor of Psychiatry, Pediatrics, and Psychology at the Virginia Commonwealth University School of Medicine and Director of the Commonwealth Institute for Child and Family Studies, Richmond, Virginia. His research interests include mindfulness, behavioral and psychopharmacological treatments of individuals with disabilities, and assistive technology for supporting individuals with diverse abilities. He is the Editor-in-Chief of two journals, *Journal of Child and Family Studies* and *Mindfulness*, and Editor of three book series: *Mindfulness in Behavioral Health*, *Evidence-based Practice in Behavioral Health*, and *Children and Families.*

About the Contributors

Shervin Assari is a Research Investigator in the University of Michigan's Department of Psychiatry. His research focuses on the link between physical and mental health of minority populations, with a particular focus on African Americans. His main research interest is in how race, ethnicity, and gender influence the complex relations between health behaviors, mental health, and physical health. He is currently examining how psychological and biological mechanisms mediate the effect of social stressors (e.g., living in disorganized communities) on obesity and cardiovascular outcomes among African American populations.

My K. Banh is a Clinical Psychologist and Assistant Professor of Clinical Psychiatry and Pediatrics at the Georgetown University Medical Center. She received degrees in maternal and child health from the Harvard School of Public Health and in clinical psychology from Boston University and completed her postdoctoral training at the University of Washington. Her areas of expertise include program evaluation using mixed methods, screening and management of posttraumatic stress symptoms in pediatric primary care, treatment development, and cultural adaptation and implementation of mental health interventions for underserved, ethnic minority children and families.

Faye Z. Belgrave is Professor of Psychology at Virginia Commonwealth University and the Founding Director of the Center for Cultural Experiences in Prevention. Her programmatic and research interests are in the areas of health disparities, including drug and HIV prevention among African Americans and other ethnic minorities. Dr. Belgrave's research also focuses on the role of culture and context in prevention interventions and on gender- and female-related issues. Much of her work has been conducted in collaboration with community-based organizations. Dr. Belgrave has published extensively and is a much sought-after speaker on the topics of African American culture, female issues, and community-based evaluation and research. She has been the Principle Investigator on several grants to implement programs and conduct research on these topics.

Brittany M. Berry is a Doctoral Student in the Department of Psychology at Virginia Commonwealth University, Richmond, Virginia. She holds a research assistantship with Dr. Faye Z. Belgrave and has served as a Peer Health Educator and In-home Counselor. She earned a masters in developmental psychology from Virginia Commonwealth University. Her research interests include risky sexual behaviors and substance use, protective factors that promote positive development of African American youth, culturally salient interventions for African American youth, religiosity as a culturally salient protective factor, and the African American Church as a protective context.

Cheryl Anne Boyce is the Chief of the Behavioral and Brain Development Branch and Associate Director for Child and Adolescent Research within the Division of Clinical Neuroscience and Behavioral Research, National Institute on Drug Abuse (NIDA), National Institutes of Health (NIH), and Department of Health and Human Services (DHHS). Before joining NIDA, she spent over a decade of service at the National Institute of Mental Health as a Program Chief focused on traumatic stress and health disparities, as well as the Associate Director for Research Training within pediatric and developmental divisions. Dr. Boyce has collaborated and consulted on issues of research and policy on the topics of child abuse and neglect, trauma and violence, early childhood, health disparities, mental health, and substance use with agencies, research investigators, those in clinical practice and the nation's public as a Federal Health Scientist Administrator.

Erica V. Buckner was a Graduate Student at the Center for Mental Health Disparities in the Department of Psychological and Brain Sciences, Clinical Psychology Program, at the University of Louisville, Louisville, KY. Her research interests have focused on African American youth, delinquency, and CBT interventions.

Cleopatra Howard Caldwell is a Professor of Health Behavior and Health Education and Director of the Center for Research on Ethnicity, Culture and Health at the School of Public Health, University of Michigan. Her research and publications focus on psychosocial and family factors as influences on the mental health and health risk behaviors of African American and Caribbean Black adolescents, intergenerational family relationships and early childbearing, discrimination, racial identity, adolescent well-being, and family-based intervention research using community-based participatory research approaches.

L. Kevin Chapman is a Licensed Clinical Psychologist in private practice where he specializes in the assessment and treatment of anxiety and related disorders. Dr. Chapman has a number of publications in this area and has served on the Editorial Boards for the *Journal of Anxiety Disorders* and *Clinical Child and Family Psychology Review*. Prior to private practice, he held appointments as an Associate Professor and Founder of the Center for Mental Health Disparities in the Department of Psychological and Brain Sciences at the University of Louisville in Louisville, KY. Dr. Chapman is a past Program Chair (2014) for the Association for Behavioral and Cognitive Therapies (ABCT) and is the current Chair of the facilitated consultation committee for Anxiety and Depression Association of America (ADAA). Dr. Chapman is a regular contributor to national, regional, and local media where he describes cognitive behavioral treatments for anxiety and related disorders. Dr. Chapman is on the Mental Health Advisory Board for the Andrew Kukes Foundation for Social Anxiety and is a member of numerous professional societies.

Nikeea Copeland-Linder, an Assistant Professor of Psychology, Trinity Washington University, is a Clinical Psychologist with interests in contextual stressors of and coping resources among African American youth.

Phillippe B. Cunningham is a Professor in the Department of Psychiatry and Behavioral Sciences, Family Services Research Center at the Medical University of South Carolina. He has had a long-standing commitment to addressing the psychosocial needs of children and adolescents, especially those who are disadvantaged and under served. His clinical and research interests include developing culturally competent mental health services, evaluating innovative clinical services for disadvantaged youth and families, developing and evaluating community-based substance abuse and violence prevention and intervention services, and training and supervising mental health professionals in providing innovative and evidence-based services. In 2000, Dr. Cunningham received the *Theodore H. Blau Early Career Award* from the American Psychological Association's Society of Clinical Psychology, and in 2006, he participated in the First Lady's Conference on *Helping America's Youth*.

Darlene M. Davis is a Clinical Psychology Doctoral Student in the Psychological and Brain Sciences Department at the University of Louisville, KY. Her clinical experience includes providing intensive individual outpatient therapy to adolescents and young adults with OCD. She completed specialized training at the University of Pennsylvania in CBT (with Exposure and Ritual Prevention) for Pediatric OCD. She has also facilitated both teen and parent OCD support groups and worked as a Behavioral Support Specialist with young adults and adults engaged in Ex/RP therapy. Her research interests involve the exploration of phenomenological factors specific to youth and young adults with OCD and psychometric properties of common OCD assessment tools. As a Graduate Fellow, she worked under the mentorship of Dr. Monnica Williams and has published papers on OCD and culture, OCD-related family factors, and the validity of OCD assessment tools in diverse populations.

Ryan C. T. DeLapp is a Doctoral Student in the clinical psychology program at the University of Louisville. He is a University Fellow and conducts his research under the mentorship of Dr. Monnica T. Williams. He earned a master of arts in clinical psychology from the University of Louisville, KY. During his time at the University of Louisville, his research and clinical experiences have largely focused on the treatment of various mental illnesses in children and adolescents of varying socioeconomic and ethnic backgrounds. His research interests include the assessment and treatment of anxiety disorders, cross-cultural measurement validation of gold-standard assessments of anxiety, unique symptom expressions of anxiety among African Americans, and the influence of perceived discrimination and coping behaviors on the psychological well-being of African Americans.

Elishia L. Durrett is a Graduate Student completing her M.Ed. in Counseling and Personnel Services with a concentration in clinical mental health at the University of Louisville, KY. She has served for several years as a Research Assistant for the Center for Mental Health Disparities, University of Louisville, where she was the senior recruiter for the CAFE project, the first research study that specifically examined anxiety and related disorders exclusively with African parents and their children. Ms. Durrett completed her undergraduate studies at Western Kentucky University and University of Louisville. She has conducted research and maintains interests in the areas of anxiety and other related disorders, ethnic differences, minority inclusion and recruitment in psychological research, African American mental health, and multicultural counseling. Ms. Durrett has published and presented research at a host of psychological conventions and conferences. She completed her internship at the Behavioral Wellness Counseling Center, where she has received training in OCD and hoarding using Exposure and Ritual Prevention (Ex/RP).

Laura D. Eddy is a second year Doctoral Student in the Department of Psychology at Virginia Commonwealth University. She has served in both Research Assistant and Teaching Assistant roles at the institution. Most recently, she served as the Research Coordinator on a study of motivational interviewing for low-income African American caregivers of children with ADHD designed to improve help-seeking behaviors. She has primary research interests in better understanding risk-taking behaviors in young adults with ADHD.

Beata DaNine Fleming is an Assistant Professor in the Department of Library Science and Informatics and the Director of Training and Intercultural Programs in the Division of Education and Student Life at the Medical University of South Carolina, SC. She has a passion for research and program development in the areas of leadership, social justice, civility, diversity and inclusion, and ethnocultural empathy and working with marginalized populations. She is committed to addressing the psychosocial needs of youth, children, and lesbian, gay, and transgender, and bisexual (LGTB) individuals.

Scott L. Graves Jr. is an Associate Professor in the Department of Counseling, Psychology, and Special Education at Duquesne University. His research interests include utilizing strengths of children to develop interventions and understanding how African American youth who are successful in their academic and social development differ from their less successful peers. He has published widely in these areas and is the Associate Editor of the *Journal of School Psychology*. In addition, he is on the editorial board of *School Psychology Quarterly* and he is a Member of the American Psychological Association Committee on Ethnic Minority Affairs (APA CEMA).

Shannon M. Haworth works at the Association of University Centers on Disabilities as Senior Program Specialist. She most recently worked for the Partnership for People with Disabilities as the Project Manager for the Virginia state autism implementation grant. She is a former Virginia LEND (Leadership Education in Neurodevelopmental Disabilities) Trainee at Virginia Commonwealth University and the parent of a child with autism and mental health disorders. Shannon has a master's degree in applied behavior analysis and a Graduate Certificate in Autism from Ball State University. She has also earned a Post-Baccalaureate Graduate Certificate in Disability Leadership from Virginia Commonwealth University and is currently a doctoral candidate (Doctor of Business Administration, DBA) studying health-care management at Walden University.

Heather A. Jones is an Assistant Professor of Psychology at Virginia Commonwealth University. She has also held a Research Psychologist position at the University of Akron and Akron Children's Hospital Medical Center. Her research and clinical interests focus on better understanding of ADHD in underserved populations, including low-income populations and racial and ethnic minorities. She collaborates with pediatricians and educational professionals across the Richmond metropolitan area to reduce racial/ethnic disparities in knowledge about child mental health difficulties, as well as mental health service use. She has published in *Journal of Abnormal Child Psychology, Clinical Child Psychology and Psychiatry, Journal of Attention Disorders, Clinical Practice in Pediatric Psychology, and Journal of Clinical Child and Adolescent Psychology.* She is on the editorial board for *Behavior Therapy*.

Sharon F. Lambert is an Associate Professor in the Department of Psychology at George Washington University. Her research interests include the development and course of depressive symptoms in urban and African American adolescents and the role of neighborhood and race-related stress in these processes. Much of her research has focused on risk for and consequences of adolescents' exposure to community violence, how adolescents experience and manage racial discrimination, and school-based prevention.

Jessica K. Malloy received a bachelor of arts degree from Williams College in Williamstown, Massachusetts, and completed her doctorate of medicine at Virginia Commonwealth University School of Medicine (formerly known as the Medical College of Virginia) in Richmond, Virginia. Dr. Malloy completed her general psychiatry residency at the VCU School of Medicine and her child/adolescent psychiatry fellowship at the VCU Health System's Virginia Treatment Center for Children. She is currently an Assistant Professor in the Department of Psychiatry at Virginia Commonwealth University where she spends most of her time treating children and their families on the acute psychiatric unit at the Virginia Treatment Center for Children. Dr. Malloy also has a private practice and consults to Virginia's Department of Juvenile Justice in the Richmond metropolitan area.

Catherine J. Mills is a Clinical Psychologist conducting psychological assessments with children, adolescent, and adults. Dr. Mills also conducts substance abuse counseling, in addition to individual, group, and family therapy with children, adolescents, and adults in Richmond, Virginia. She earned her doctor of psychology degree from the Virginia Consortium Program in Clinical Psychology. Prior to that, Dr. Mills earned her master's degree in clinical psychology from North Carolina Central University and her bachelor of arts degree with a double major of biology and psychology from the University of North Carolina at Greensboro. She has taught courses on psychology assessment at Longwood University and has taught various courses in the field of psychology at Norfolk State University. Her research interests include mental health and physical health disparities among African Americans, proper techniques for adequate psychological assessment in African American youth, and using alternative therapeutic techniques, such as relaxation training, to improve mental and physical health functioning.

Sandra J. Mullen is a Graduate of Wilkes University Nesbitt College of Pharmacy and Nursing in Wilkes-Barre, PA. Dr. Mullen completed a PGY1 Pharmacy Practice Residency at CJW Medical Center in Richmond, VA, and a PGY2 psychiatric pharmacy practice residency at Virginia Commonwealth University Health System (VCUHS). Dr. Mullen is currently a Clinical Pharmacy Specialist in psychiatry at VCUHS specializing in child and adolescent psychiatry at the Virginia Treatment Center for Children (VTCC). In addition, she manages the attention deficit/hyperactivity disorder (ADHD) medication management clinic at VTCC. Dr. Mullen is an Assistant Clinical Professor in the School of Pharmacy and the Department of Psychiatry of the School of Medicine at Virginia Commonwealth University.

Kayla D. Nichols is a Doctoral Student in the Department of Counseling, Psychology, and Special Education at the Duquesne University. She earned a master of science in education from Duquesne University and a dual degree in psychology and sociology from Georgia State University. Prior to pursuing her doctoral degree, she was a Case Manager of the Bureau of Milwaukee Child Welfare as well as of Aurora Family Services in Milwaukee, WI, where she worked with at-risk children and families. Her research interests include academic efficacy and African American students and the role of systemic factors in developing the self-concept and academic identification of African American female students.

Donald P. Oswald taught for 20 years in the Department of Psychiatry at Virginia Commonwealth University School of Medicine and continues as a Clinical Professor in that department. He also serves as Director of Diagnostics and Research at Commonwealth Autism and as the Psychology Representative on the faculty of the Virginia Leadership Education in Neurodevelopmental Disabilities (VA-LEND) program. His research interests include assessment and treatment of individuals with developmental disabilities and systems of care for children with special health care needs. He has published extensively in the areas of developmental disabilities, special education, and systems of care. He is a Consulting Editor for the journal *Focus on Autism and Other Developmental Disabilities* and a Member of the Editorial Board for *Clinical Child and Family Psychology Review.* In the past, he has served as Editor, Consulting Editor, and Reviewer for a wide variety of other professional journals.

Carisa Perry-Parrish is an Assistant Professor and Director of Training (Pediatric Psychology Postdoctoral Fellowship) in the Division of Child/Adolescent Psychiatry at Johns Hopkins School of Medicine in Baltimore, Maryland. Her research interests are in children's emotion regulation, parent socialization of children's emotional development, child and parent coping with medical stressors (e.g., chronic conditions, injuries), social-contextual factors that influence children's expression of emotions (e.g., age, gender, ethnicity), and mindfulness-based interventions for youth.

Annie E. Rabinovitch is a third year Doctoral Student in the Department of Psychology at Virginia Commonwealth University. At Virginia Commonwealth University, she has served as a Teaching Assistant for several courses within the department. Additionally, she has been a Research

Coordinator on a study of parenting in African American families of children with ADHD (Principal Investigator: Dr. Heather Jones). She has clinical and research interests in understanding mental health and service use in underserved populations, including LGBT youth.

Kenneth M. Rogers is Professor and Chair of the Department of Psychiatry and Behavioral Medicine, University of South Carolina School of Medicine-Greenville. Prior to this position, he was Director of Child Psychiatry Residency Training at the University of Maryland. Dr. Rogers earned his medical degree from the University of South Carolina where he also completed his residency in general psychiatry and fellowship in child and adolescent psychiatry. He completed a master of science in public health at the University of California at Los Angeles and a master's in medical management from the University of Southern California. His research interests include juvenile justice and legal issues, religion and spirituality, and systems of care.

Jeff Randall received his undergraduate degree in psychology from San Jose State University, his doctoral degree in clinical psychology from Virginia Tech, and his predoctoral internship as well as postdoctoral fellowship from Western Psychiatric Institute and Clinic at the University of Pittsburgh. He is an Assistant Professor in the Family Services Research Center of the Department of Psychiatry and Behavioral Sciences at the Medical University of South Carolina. His research interests include multisystemic therapy (MST) conceptualization and treatment, adolescent substance abuse, juvenile drug court, and anxiety disorders. Some primary populations that MST targets include children and adolescents engaging in substance abuse, violent behaviors, and other criminal activities.

Stacy R. Ryan is an Assistant Professor in the Department of Psychiatry at the University of Texas Health Science Center at San Antonio (UTHSCSA). Dr. Ryan's primary research interests center on identifying biosocial factors that influence outcomes for treatment of youth substance use disorders and related aggressive/delinquent behavior. She is particularly interested in using this information to understand the utility of current intervention programs. Dr. Ryan hopes that her research will lead to the improvement of current evidence-based treatment programs that are aimed at treating adolescent substance use and other externalizing behaviors.

Broderick A. Sawyer is a Clinical Psychology Doctoral Student in the Psychological and Brain Sciences Department at the University of Louisville, KY. He is currently a University Fellow conducting research under the mentorship of Dr. Monnica Williams. At the University of Louisville, his research interests have largely focused on the unique impact of sociocultural factors on symptom expression (i.e., racial microaggressions, acculturation) in anxiety and trauma-related disorders and treatment utilization in racial/ethnic minority populations. Mr. Sawyer has published several book chapters and peer-reviewed articles surrounding differential symptom expression in PTSD and OCD, cross-cultural assessment, and treatment barriers in racial/ethnic minority populations. His clinical experiences include providing outpatient treatment for PTSD and depression using a cognitive behavioral framework.

Mr. Sawyer has also provided clinical lectures for mental health professionals on connecting with African American clients, assessing OCD in diverse populations, and culturally sensitive intervention when working with lesbian, gay, and bisexual clients.

Erica M. S. Sibinga is an Associate Professor of Pediatrics at the Johns Hopkins School of Medicine and Director of Ambulatory Pediatrics at the Johns Hopkins Bayview Medical Center. Dr. Sibinga is a General Academic Pediatrician, keenly interested in improving the lives of children and families. With funding from NIH and local foundations, she has engaged in the adaptation and evaluation of the mindfulness-based stress reduction (MBSR) program for urban children and youth in both clinic- and school-based settings. Dr. Sibinga's randomized controlled trials have shown that mindfulness instruction for children and youth can improve coping and psychological symptoms, as well as quality of life.

Regine M. Talleyrand received her Ph.D. in counseling psychology from the University of Maryland, College Park. She currently is an Associate Professor for the Counseling and Development Programs in the College of Education and Human Development at George Mason University. Dr. Talleyrand's professional and research interests are in studying mental and physical health disparities in women of color and developing culturally relevant counseling and vocational interventions for communities that have been underrepresented and underserved. She has published and presented in the areas of eating disorders in African American women, multicultural counseling, career counseling, and advising and mentoring relationships. She is on the editorial boards of the *Journal of Counseling and Development* and *Journal for Social Action in Counseling and Psychology* and has served as an ad hoc reviewer for the *Journal of Counseling Psychology*, *The Counseling Psychologist*, and the *Journal of Black Psychology*.

Rongrong Tao is a Child and Adolescent Psychiatrist and an Associate Professor of Clinical Psychiatry and Pediatrics in the Department of Psychiatry, Georgetown University Hospital. Prior to this position, she held a faculty appointment at the Division of Child and Adolescent Psychiatry, Department of Psychiatry, the University of Texas Southwestern Medical Center, for 8 years where she was the Medical Director of the pediatric mood and anxiety disorder clinic and Principal and Coinvestigator of multiple imaging and treatment studies of pediatric depression. Her clinical and research interests include pediatric mood and anxiety disorders and self-harming behaviors.

Erlanger A. Turner is a Licensed Clinical Psychologist and an Assistant Professor of Psychology in the College of Humanities and Social Sciences at the University of Houston-Downtown. He earned his doctoral degree in clinical psychology from Texas A&M University and completed a postdoctoral fellowship through the Johns Hopkins University School of Medicine and Kennedy Krieger Institute. Prior to his current positions, he was an Assistant Professor in the Department of Psychiatry at Virginia Commonwealth University School of Medicine. His research interests include ethnic minority mental health, access to behavioral health services for youth, health equity, psychometric evaluation of psychological instruments, and cultural competency in clinical practice. Additionally, his clinical interests include assessment and treatment of disruptive behavior disorders and cognitive-behavioral therapy.

Lindsey Webb is a Master of Health Science (MHS) student in the department of mental health in the Bloomberg School of Public Health at Johns Hopkins University. Additionally, she is Research Coordinator on multiple studies evaluating mindfulness-based interventions for urban youth.

Sala Webb is a Psychiatric Consultant to the United States Army Medical Department European Regional Medical Command in Bavaria, Germany. In that capacity she works directly with active duty service members, their spouses and children, as well as military retirees and overseas civilian personnel. In addition, she consults with area Department of Defense Education Activity schools and on-post primary care providers with regard to the children they serve. Dr. Webb held a prior appointment as Assistant Professor of Psychiatry at the Virginia Commonwealth University School of Medicine. There, she was the Medical Director of Ambulatory Services for the Virginia Treatment Center for Children, as well as a Consultant to the Virginia Department of Juvenile Justice. She enjoys working with special populations such as military children, incarcerated youth, and the pediatric medically ill. Other interests include global heath, culture and diversity, and prevention efforts in mental health.

Monnica T. Williams is a Clinical Psychologist and Director of the Center for Mental Health Disparities at the University of Louisville in the Department of Psychological and Brain Sciences. She coordinates several research projects at the CMHD and provides research and clinical training to students. Dr. Williams has published over 50 book chapters and peer-reviewed articles focused on anxiety-related disorders and cultural differences. She has received grant funding from local, federal, and international organizations. She has served on the Board of Directors of the Delaware Valley Association of Black Psychologists, the National Alliance on Mental Illness (NAMI), Main Line Chapter, and the OC Foundation of California. She is currently a Member of the International OCD Foundation (IOCDF), where she serves on the Scientific Advisory Board and the Association of Behavioral and Cognitive Therapies, where she serves as the Special Interest Group (SIG) Leader for African Americans in Behavioral Therapy. She is also on the editorial board of the *Journal of Obsessive-Compulsive and Related Disorders* (JOCRD) and Associate Editor of *BMC Psychiatry*.

Stephanie A. Wilson is a Research Assistant in the Department of Psychology at Temple University who is starting the Clinical Psychology doctoral program at Virginia Commonwealth University in the fall of 2015. Ms. Wilson has served as the Project Manager for a study assessing the sociocultural and biological correlates of intermittent explosive disorder among youth. Additionally, she has worked on studies of childhood anxiety while serving as the Clinic Coordinator for a youth anxiety clinic. Her research interests include understanding resilience and risk factors in the development of psychopathology in underserved youth populations.

Part I

Mental Illness in African American Youth

1

The Epidemiology of Mental Disorders in African American Children and Adolescents

Cleopatra Howard Caldwell, Shervin Assari, and Alfiee M. Breland-Noble

Introduction

Adolescence is a developmental period associated with high levels of stress including biological and physical changes, environmental transitions, and psychosocial adjustments in interactions with parents, peers, and others (Goddings, Burnett Heyes, Bird, Viner, & Blakemore, 2012). These changes during adolescence often contribute to emotional and behavioral problems among youth (Low et al., 2012). While developmental changes and difficulties are expected during adolescence, many youth experience behavioral and emotional concerns best characterized as mental health problems. Although official reports consistently indicate that 13–20 % of children and adolescents, ages 3–17 years, experience a mental health problem each year (Centers for Disease Control and Prevention [CDC], 2013), mental disorders in youth often go undetected, due in part, to adults' expectations of turbulence during adolescence. Epidemiologic data on mental disorders among children and adolescents remains limited despite the need to better understand the etiology and correlates of mental disorders in these populations. Specifically, as it relates to African American youth, data on psychiatric disorders are scarce and rarely the primary focus of epidemiological studies despite evidence of critical environmental and other risk factors for major mental disorders (Brown et al., 2006; Gore & Aseltine, 2003; McLeod & Owens, 2004; Phelan, Link, Diez-Roux, & Kawachi, 2004; Wickrama, Wickrama, & Lott, 2009).

Overall, in comparison to their white peers, African American adolescents are disproportionately exposed to environmental stressors such as disadvantaged and unsafe neighborhoods, under-resourced families with fewer socioeconomic resources, trauma related to peer and other loss, and racial stress resulting from racism and discrimination. These and other factors have been associated with heightened depression, anxiety, and other emotional problems in African American youth (Assari, Smith, Caldwell, & Zimmerman,

C.H. Caldwell (✉)
Department of Health Behavior and Health Education, School of Public Health, University of Michigan, 1415 Washington Heights, Ann Arbor, MI 48109-2029, USA
e-mail: cleoc@umich.edu

S. Assari
Department of Psychiatry, University of Michigan, 1500 East Medical Center Drive, Ann Arbor, MI 48109-5295, USA

A.M. Breland-Noble
Department of Psychiatry, Georgetown University Medical Center, 2115 Wisconsin Avenue Suite 120, Washington, DC 20007, USA

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2015; Brenner, Zimmerman, Bauermeister, & Caldwell, 2013; Estrada-Martínez, Caldwell, Bauermeister, & Zimmerman, 2012; Lewis, Byrd, & Ollendick, 2012; Mustanski, Byck, Bolland, Dick, & Ashbeck, 2013; Rheingold et al., 2003). Although African American adolescents are exposed to a number of environmental factors which place them at risk for psychiatric disorders, most available research on African American youth focuses on behavioral problems such as sexual risk and violent behaviors (Brown et al., 2006; DiClemente et al., 2001; Fasula, Miller, & Wiener, 2007; Martins, Storr, Ialongo, & Chilcoat, 2008; Su, Simons, & Simons, 2011; Zalot, Jones, Kincaid, & Smith, 2009). Thus, there is a need for more epidemiological studies of major mental disorders in African American youth to provide a better understanding of the etiology, prevalence, and unmet service needs for these youth (Seng, Kohn-Wood, & Odera, 2005).

This chapter is designed to fill a gap in the literature related to the aforementioned concerns. Specifically, we provide an overview of the prevalence of psychiatric disorders among African American youth, with special attention to within group ethnic and gender differences, along with an assessment of available data and consideration of what is known about mental health service use for African American children and adolescents.

Prevalence of Psychiatric Disorders among African American Youth

While historical research on the psychiatric epidemiology of African American youth is scarce, recent research with representative samples of African American and other youth of color has emerged in the literature. We found two large-scale national surveys of psychiatric disorders among diverse youth: the National Comorbidity Study-Adolescent Supplement (NCS-A; Merikangas, Avenevoli, Costello, Koretz, & Kessler, 2009) and the National Survey of American Life-Adolescent Supplement (NSAL-A; Jackson et al., 2004). Although not focused specifically on psychiatric disorders, the National Longitudinal Study of Adolescent Health (Add Health; Harris et al., 2008) does include mental health issues for African American youth. In the case of the NCS-A and the NSAL-A, these studies employed professionally trained interviewers to collect diagnostic data using the World Mental Health Composite International Diagnostic Interview to assess DSM-IV TR psychiatric disorders. The Add Health study used the Center for Epidemiologic Studies Depression (CES-D) scale to measure depressive symptomatology (Radloff, 1977). The NCS-A was comprised of a representative sample of 10,123 youth ages 13–17 years old, including 1953 African American, 5634 white, and 2536 other adolescents. The NSAL-A sample is the only large-scale epidemiological study that focuses solely on nationally representative samples of African American ($N=810$) and Caribbean Black ($N=360$) adolescents 13–17 years old living in the continental United States. As a nationally representative sample of the adolescent population ($N=12{,}118$, about 4000 African American) the Add Health study provides the added benefit of oversampling middle and upper middle class African American youth with college educated parents ($n=1038$), a population almost entirely absent from the research literature (Eisele, Zand, & Thomson, 2009; Gordon, 2012). The uniqueness of the latter two studies lies in their ability to provide data regarding Black ethnic differences (i.e., African American and Caribbean Black youth) and socioeconomic variations in mental health within the Black adolescent population. This is particularly important because prior research has demonstrated within group differences in risk and protective factors for psychiatric disorders in the Black adult population (Assari, 2014; Assari & Caldwell, 2015; Assari, Lankarani, & Lankarani, 2013). Similar to Black adults, ethnically diverse Black youth experience symptoms that are undiagnosed, under-diagnosed, or misdiagnosed for cultural, linguistic, or historical reasons (Breland-Noble, 2004; Breland-Noble, Buriss, Poole, & AAKOMA Project Adult Advisory Board, 2010; Thomas, Temple, Perez, & Rupp, 2011). Therefore, understanding ethnic and socioeconomic differences within this population is critical to developing relevant interventions, clinical services, and policies designed to reduce mental health disparities for both prevalence of disorders and use of services.

Using data from the NCS-A, Merikangas, Avenevoli, et al. (2009) and Merikangas et al. (2010) compared lifetime prevalence of mental disorders among racially diverse groups of adolescents in the USA They found that overall 49.5 % of the youth in their sample reported at least one lifetime psychiatric disorder, and 42 % reported two or more co-occurring disorders. The most prevalent lifetime disorder category was anxiety disorders (32 %), with phobia (19 %) as the leading disorder in this class of disorders. Mood disorders (14 %) were the next most frequent class of disorders, with dysthymia (11.7 %) as the most prevalent disorder. Substance use disorders accounted for 11 % with drug use accounting for 8.9 % of this category. Two racial differences were found in the major classes of lifetime DSM-IV mental disorders between African Americans and whites: (1) an increased rate of anxiety disorders and (2) lower rates of substance use disorder among African American compared to white adolescents.

Studies of the African American population tend to define African Americans as any person of Black African descent living in the USA. Unfortunately, this definition fails to examine or address the needs of African descended Blacks or other ethnic groups in the USA like immigrant Africans and Caribbean Blacks. In fact, Caribbean Blacks and their descendants represent the largest group of Black immigrants in the USA, accounting for two-thirds of the more than two million Black immigrants currently in the USA (Rong & Preissle, 1998). It is likely that the experiences of Caribbean Blacks in the USA, especially those who live in close proximity to each other and those who continue to practice cultural traditions, may vary from the experiences of African Americans who are descendants of persons forcibly transported to the USA. Therefore, it is possible that the etiology of psychiatric disorders may differ among Black adolescents of varied ethnicities. Throughout this chapter, we will use the term African American to reflect current literature and the descriptor generally used to describe Blacks of African descent residing in the USA. We use the term Black as an inclusive term encompassing multiple ethnic groups in studies referenced to highlight ethnic diversity of persons of African descent in the USA.

Few studies have actually examined the prevalence of psychiatric disorders in youth of Caribbean ancestry using representative community samples. The NSAL-A is one study that undertakes the task of highlighting the within group variability among Blacks with a focus on African Americans and Blacks of Caribbean ancestry (Caldwell, Rafferty, & Jackson, 2014; Jackson et al., 2004). Data from the NSAL-A show that overall, 35 % of Black (i.e., African American and Caribbean Black) youth reported a lifetime psychiatric disorder and about 15 % reported two or more co-occurring disorders. The most prevalent lifetime disorder category was behavioral or impulse-control disorders (e.g., oppositional-defiant and conduct disorders) with 22 % of the sample meeting DSM-IV criteria. Anxiety disorders were next with 17 % of the youth meeting criteria, followed by mood disorders at 6.7 %. Substance use disorders were least prevalent at 4.7 %. Social phobia (12.6 %) and intermittent explosive disorder (9 %) were the most prevalent lifetime disorders, with Caribbean Black youth (11.7 %) having higher rates of current intermittent explosive disorder than African American adolescents (6.7 %). Interestingly, we note that lifetime conduct disorder (7.7 %) and oppositional-defiant disorder (8.8 %) were at lower levels than expected, based on the DSM IV criteria used in this sample. These findings are in contrast to much of the literature on African American youth which tends to disproportionately focus on the diagnosis and treatment of disruptive behavior disorders in this population.

Prevalence of Specific Disorders for African American Youth

Prior studies have estimated the prevalence of psychiatric disorders for African American adolescents using standardized diagnostic criteria and structured diagnostic interview schedules. Most studies include African American adolescents as part of larger community probability samples (Angold et al., 2002; Costello, Mustillo, Erkanli, Keeler, & Angold, 2003; Doi, Roberts, Takeuchi, & Suzuki, 2001). In this section we describe prevalence rates for several psychiatric disorders for African American youth using national and local data, including attention deficit/hyperactivity disorder (ADHD), conduct disorder (CD), depressive illness, eating disorders, and suicide.

ADHD in African American Youth Epidemiological studies indicate few differences in the prevalence of ADHD across racial groups but significant differences in the diagnosis and treatment of ADHD for African American compared to white youth. It has been suggested that African American youth may be 69 % less likely to receive an ADHD diagnosis than white youth from kindergarten through the eighth grade (Morgan, Hillemeier, Farkas, & Maczuga, 2014; Morgan, Staff, Hillemeier, Farkas, & Maczuga, 2013). In addition, Jones, Rabinovitch, and Eddy (2015) suggested that African American parents are less likely to attribute ADHD etiology to biological factors making them less likely to seek biomedical treatments (i.e., psychopharmacologic) for care. The issue of etiology perception for mental illness has been consistently found among African American parents and may, in part, explain hesitance to seek medication-based treatments for illnesses frequently perceived as behavioral problems (Jacobs et al., 2008).

Prior research based on behavior ratings indicated that ADHD was higher in African American than in white children and adolescents; however, fewer African American children and adolescents are diagnosed with and treated for ADHD (see Miller, Nigg, & Miller, 2009 for review). In a comprehensive review of ADHD research for African American youth and families, Miller et al. (2009) concluded that even though more ADHD symptoms were reported by African American youth; they were diagnosed with ADHD just two-thirds as often as white youth. The authors questioned the validity and cultural relevance of current diagnostic tools to adequately assess ADHD in African American youth, calling for more research in this area.

Reasons for disparities in treatment include well-articulated factors such as individual, provider, and systemic barriers (Breland-Noble, 2004; Smedley, Stith, & Nelson, 2002). At the individual/patient level, obstacles to care include inadequate knowledge regarding the symptoms, treatment and consequences of untreated ADHD, as well as concerns over diagnosis or misdiagnosis for African American children and adolescents (Jones et al., 2015; Miller et al., 2009). A recent survey conducted to explore cultural differences in perceptions of ADHD found that African American parents were more likely than white parents to be unfamiliar with ADHD, feel their children were diagnosed with ADHD more often than white parents, and believe that teachers blamed ADHD for learning or behavior problems more often for African American youth than for white youth (Bailey et al., 2010).

Previous research has found that barriers in the health care system also contribute to disparities in ADHD treatment. For example, Bailey et al. (2010) suggest that clinicians often do not consider the experiences children have in different environmental settings prior to diagnosis. This has implications for the accuracy of diagnosis, especially for youth living in stressful and under-resourced neighborhood conditions. In addition, a lack of cultural sensitivity by clinicians may result from stereotyping or cultural biases stemming from a limited understanding of the social conditions and historical experiences of patients. This could influence communication between patients, families, and providers. Working with clinicians to overcome such barriers has been suggested to improve the delivery of mental health services for ADHD (Bailey & Ownes, 2005; Miller et al., 2009).

Conduct Disorders and African American Youth We identified a few observational studies that examined rates of conduct disorder in samples of racially diverse youth and found that African American youth were reported to exhibit significantly higher rates of conduct disorders (CD) than white and other youth of color

(Bird et al., 2001). Unfortunately, the samples for many of these studies were drawn from incarcerated or hospitalized African American youth and, therefore, do not represent the general population (Brody et al., 2003). Even though African American youth are exposed to considerably more risk factors for psychiatric disorders than white youth, several studies find that they were diagnosed at lower rates for CD in epidemiological studies (Miller-Johnson, Lochman, Coie, Terry, & Hyman, 1998). Nevertheless, African American youth who display acting out or disruptive behaviors are more likely to be referred to the juvenile justice system rather than to mental health services (Bean, Barber, & Crane, 2006; Burriss, Breland-Noble, Webster, & Soto, 2011). In the absence of treatment, conduct disorder is associated with an increased risk of antisocial behaviors among youth, which can extend into adulthood (Kratzer & Hodgins, 1997).

Factors exist at the societal, cultural, and clinical levels that contribute to disparities in CD. In fact, numerous studies (Brody et al., 2003; Kim, Conger, Elder, & Lorenz, 2003) have demonstrated a link between stressful life events and adolescent adjustment problems. Cross-sectional studies often suggest that stressful life events may be related to adolescent problem behaviors and mental distress (Grant et al., 2004). Prospective, longitudinal studies, however, are less consistent. For example, Siegel and Brown (1988) and Swearingen and Cohen (1985) failed to show positive associations between stressful life events (acute or chronic) and adolescents' emotional and behavioral problems, while Compas, Orosan, and Grant (1993) and Windle (1992) found these links. Further clarification is necessary to better understand these issues.

Depression and African American Youth Prior studies have estimated the prevalence of depression for African American adolescents using standardized diagnostic criteria and structured diagnostic interview schedules. Most studies include African American adolescents as part of larger probability samples. Angold et al. (2002), for example, surveyed four counties in rural North Carolina to assess psychiatric disorders in 920 low-income or under-resourced African American and white 9–17 year olds. They found that 1.7 % of African American youth met criteria for a depressive illness. Doi et al. (2001) found that 13.4 % of the 636 African American 12–15 year olds in Texas met criteria for depressive illness when the Diagnostic Interview Schedule for Children (DISC) was used. The prevalence was reduced to 6.1 % when impairment was assessed. Gayle, Bolland, Dick, Ashbeck, and Mustanski (2013) also used a version of the DISC to measure depression with 592 low-income African American adolescents who were 13–18 years old in Alabama. Their findings indicated a rate of 3.8 %. An investigation using waves 1 and 2 of the national Add Health data (Harris et al., 2009) demonstrated that the prevalence of depressive symptoms was 2.5 % at wave 1 (baseline) and 2.8 % at wave 2 follow-up.

Across studies, prevalence estimates of depression vary widely for African American youth. Reasons for these differences may include mechanisms of assessment of functional impairment, the age of adolescents examined, the geographic location of the study, the lack of assessment of socioeconomic and environmental factors, and the types of measures employed. Thus, the evidence is not clear as to the level of risk (or the actual prevalence) for depression among African American adolescents from varying backgrounds. More research is necessary to better understand this critical mental health issue for this population.

African American adolescents have been identified as a particularly vulnerable group regarding the occurrence of depression due to stressful life circumstances (Gibbs, 1990; Rosella & Albrecht, 1993). Some studies indicate that African American adolescents experience depression at disproportionately higher levels than adolescents from other racial/ethnic groups (Roberts, Roberts, & Chen, 1997; Wu, 1999), while others do not (Gayle et al., 2013; Saluja et al., 2004). Identifying protective factors for this population is critical to advancing knowledge in this area. A sample of 286 under-resourced African American youth reporting racial stress (i.e., experiences with discrimination) also reported elevated internalizing symptoms (White & Rogers, 2000). In another study, the stress-buffering hypothesis was explored longitudinally in a sample of 173 urban, African American males. Data on social support, stressful life events, alcohol and substance use, delinquency, and psychological symptoms were collected twice, 6 months apart, resulting in no support for the stress-buffering hypothesis. Ultimately, friend support was unrelated to anxiety and depression longitudinally; however, parental support predicted less anxiety and depression over time.

The above findings on males suggest that parental support, rather than peer support, may protect African American youth from elevated anxiety and depression. These results add to research indicating the positive role parental support plays in the healthy development of African American adolescents. Additionally, extended family may play a vital role in the healthy development of African American youth. Most tests of the stress-buffering hypothesis among youth examine parental and/or peer support. Nevertheless, some researchers have found that informal sources of support and non-kinship relationships help reduce the negative consequences of stress for African American adolescents (Caldwell, Zimmerman, Bernat, Sellers, & Notaro, 2002; Simons et al., 2002) and increase use of mental health services (Lindsey, Barksdale, Lambert, & Ialongo, 2010)

Eating Disorders and African American Youth To study prevalence and age of onset for eating disorders, Taylor, Caldwell, Baser, Faison, and Jackson (2007) analyzed data with nationally representative samples of African American and Caribbean Black adults ($N=5191$) and adolescents ($N=1170$) from the NSAL. Reports of 12-month Anorexia was the least prevalent eating disorder among African American adults (0.05 %) and adolescents (0.07 %), with age of onset for adults in mid adolescence. There were no cases of Anorexia among Caribbean Blacks. Binge eating was the most prevalent 12-month eating disorder among adults (2 %) and adolescents (1.6 %), regardless of ethnicity. Prevalence of eating disorders varied by type of disorder; therefore, we surmise that clinicians require preparation and training to recognize and treat eating disorders in ethnically diverse patient populations. No significant gender differences were found among adolescents; however, actual cases of 12-month eating disorders in all categories were more frequent for boys than for girls.

Suicide and African American Youth Suicide is the third leading cause of death among 10- to 19-year-olds in the USA, with the greatest increases in suicide rates in the previous decade experienced by African American and other racially diverse youth (Centers for Disease Control and Prevention (CDC), 2011). Joe, Baser, Neighbors, Caldwell, and Jackson (2009) studied lifetime and 12-month prevalence for suicide attempts among African American and Caribbean Black adolescents in the NSAL-A. This study examined nonfatal suicidal behavior among 1170 African American and Caribbean Black adolescents aged 13–17 years old. Results indicated that African American adolescents reported a lifetime prevalence of 7.5 % for suicidal ideation and 2.7 % for suicide attempts. The 12-month prevalence of suicidal ideation and attempt was 3.2 % and 1.4 %, respectively. Four percent (4 %) of all adolescents and 7 % of female participants had attempted suicide by age 17. African American adolescents were approximately five times more likely than Caribbean Black youth to attempt suicide. Almost half of the respondents who reported a suicide attempt had never met criteria for any DSM-IV disorders at the time of the attempt (Joe et al., 2009).

Official statistics indicate that white youth are nearly twice as likely as African American youth to commit suicide (Centers for Disease Control and Prevention (CDC), 2011). Attempts to explain the disparity between African Americans and whites have resulted in several explanations, including age differentials in rates of suicide among older male youth by race. When examining age, researchers have reported that suicide risk among young African American men was comparable to that of young white men (Joe & Kaplan, 2001); however, older white men had the highest risk among youth. This disparity has decreased appreciably over time. The increasing convergence in suicide rates is associated with striking increases in suicide rates among African American youth. Between 1980 and 1995, for example, the suicide rate for African Americans ages 10–14 increased 233 %; the suicide rate for comparable white youth increased 120 % (CDC, 1998).

A coroner judges whether someone has died by suicide. The accuracy of suicide determinations, especially in the case of African American youth, has been called into question (Phillips & Ruth, 1993). Mohler and Earls (2001) were able to notably reduce the gap in suicide rates between African American and white adolescents and young adults after correcting for attribution to other causes.

In a subsequent study, Joe, Baser, Breeden, Neighbors, and Jackson (2006) found that African Americans and Caribbean Blacks reported lifetime prevalence of 11.7 % for suicide ideation and 4.1 % for attempts. Among the respondents who reported ideation, 34.6 % transitioned to making a plan and only 21 % made an unplanned suicide attempt. Among four ethnic-gender groups (African American males and females and Caribbean Black males and females), the 7.5 % lifetime prevalence for attempts among Caribbean Black males was the highest among Blacks. The greatest risk of progressing to suicide planning or attempt among ideators occurred within the first year after ideation onset. African Americans and Caribbean Blacks at high risk for suicide attempts were younger, less educated, or from the Midwest.

Using data from the Add Health study, Resnick et al. (1997) examined Time 1 factors at the individual, family, and community levels, which were expected to protect against Time 2 suicide attempts. Perceived parent and family connectedness were protective against suicide attempts for African American, Hispanic/Latino, and white youth. For females, emotional well-being was also protective for all of the racial/ethnic groups studied, while a high grade point average was an additional protective factor for males in the study. Risk factors for all groups included a previous suicide attempt, violence victimization, violence perpetration, alcohol use, marijuana use, and school problems. Additionally, somatic symptoms, a friend's suicide attempt or completion, illicit drug use, and a history of mental health treatment predicted suicide attempts among African American, Hispanic/Latino, and white females. Weapon-carrying at school and same-sex romantic attraction were predictive of suicide attempts for all male racial/ethnic groups. Calculating the estimated probabilities of attempting suicide for adolescents with increasing numbers of risk and protective factors revealed that the presence of three protective factors reduced the risk of a suicide attempt by 70–85 % for each gender and racial/ethnic group, including those with and without identified risk factors.

Mental Health Service Use and African American Adolescents

Overall, 10 % of children and adolescents experience mental illness severe enough to cause some level of impairment (Knopf, Park, & Mulye, 2008). Epidemiological data indicates that African American youth are no more or less likely than white youth to experience impairment or prevalence of major mental health disorders. However, among African American youth, a great deal of the research related to mental illness impairment and prevalence is focused on the subset of youth characterized as "under-resourced or low-income." As a result, the field remains unclear regarding the prevalence of mental illness among socioeconomically and ethnically representative samples of African American youth. Fortunately, within the past 5–10 years there has been an increase in the representativeness of socioeconomically and ethnically diverse samples of African American youth in the empirical literature, including notably the National Survey of American Life-Adolescent Supplement (NSAL-A; Jackson et al., 2004) and the National Comorbidity Survey-Adolescent Supplement (NCS-A; McLaughlin, Costello, Leblanc, Sampson, & Kessler, 2012).

As indicated earlier, few differences exist regarding mental illness prevalence for major disorders in racially diverse US youth. However, significant differences and disparities exist in the use of treatments for mental illness. For example, some research suggests that over 75 % of all US youth with a mental health problem receive no mental health care. African American youth receive significantly less mental health specialty care (i.e., from a psychologist or psychiatrist), demonstrate lower rates of treatment completion (33.5 % of African American youth vs. 45.1 % of white youth) and in some instances spend 50 % less time in treatment as compared to white youth (Alegria, Carson, Goncalves, & Keefe, 2011; Angold et al., 2002; Garland et al., 2005; Merikangas, Nakamura, & Kessler, 2009; Wu et al., 2001).

Among African American youth and families, research indicates that treatment underutilization might be attributable to alternate coping styles (i.e., religion and prayer), resistance toward "medicalizing" behavioral problems and emotional concerns and financial barriers like type of insurance or ability to pay out of pocket for care (Molock, Puri, Matlin, & Barksdale, 2006; Snowden & Thomas, 2000; Terreri & Glenwick, 2013). However, even when controlling for socioeconomic variables (i.e., insurance and ability to pay), African American treatment utilization remains disproportionately lower (Alegria et al., 2008; Cummings & Druss, 2011). Unfortunately, some of the disparities faced by African American youth regarding treatment utilization include the negative sequelae of mental illness burden including the (mis) diagnosis of disruptive behavior disorders, poor academic performance, school dropout, and even suicidal ideation and behaviors (Bean et al., 2006; Breland-Noble et al., 2010). Further, African American youth are less likely than white youth to access mental healthcare across most service sectors (except schools) and disproportionately receive mental health services via specialized access points like the juvenile justice system (ratio of 3:1 compared to white youth) (Breda, 2003; Dannerbeck & Jiahui, 2009; Snowden & Thomas, 2000; Trupin & Boesky, 2001). In fact, recent research confirms this finding by indicating that among racially diverse US youth, the poorest youth were much more likely to receive mental health services from the juvenile justice system than youth from the wealthiest families. Since African American youth are disproportionately represented among families with fewer resources than white youth, it is not surprising that the juvenile justice system serves as a de facto mental health service entry point (Costello, He, Sampson, Kessler, & Merikangas, 2014). A number of reasons might explain racial disparities in estimates of mental health service use, including inadequate and inappropriate diagnostic identification, less service access, and perceived ineffectualness of treatments for mental health problems. Finally, disparities exist not only in initial access to care, but also in service completion and quality (Breland-Noble, Bell, Burriss, & AAKOMA Project Adult Advisory Board, 2011; Breland-Noble, Wong, Hankerson, Childers, & Sotomayor, 2013; Ingoldsby, 2010; U.S. Department of Health and Human Services, P. H. S., Office of the Surgeon General, 2001).

Regarding mental health services, the field is moving toward the dissemination and implementation of evidence-based practices in community and clinical settings. In fact, the Affordable Care Act strongly encourages the implementation of evidence-based mental health practice for children's mental health (Garland et al., 2013). While evidence-based practice offers the potential for a standardized method of care across settings and practitioners, there has been some criticism about the relative evidence of currently validated mental health interventions for major mental disorders for African American youth. Based on the seminal 2010 Huey and Polo review of evidence-based interventions for youth mental health, it is clear that currently, there are no "well-established" evidence-based treatments for youth of color, including African American youth. While this does not mean that current evidence-based treatments are ineffective, it speaks to the significant gap in our knowledge regarding the effectiveness of standard interventions to address major mental health issues in African American youth. Of the emerging knowledge on the treatment of mental illness in African American youth, most of the literature focuses on disruptive behavior and externalizing problems like conduct disorder and delinquent behaviors. Though not always the case, more often than not, the primary populations on which many evidence informed interventions were developed and normed include non-representative samples of under-resourced or juvenile justice involved African American youth (Breland-Noble, Childers, & Boyce, in press; Breland-Noble, Stein, Wong, & Wang, in press).

Epidemiologists have evaluated mental health service use in racially diverse samples of youth and for African American youth specifically. Historically, studies have found that US youth have received care at rates far less than needed. For example, a recent SAMHSA report indicated that only 41.6 % of white, 36.9 % of Latino, and 28.6 % African American adolescents who reported having a major depressive episode in 2013 also reported receiving treatment (U.S. Department of Health and Human Services and Substance Abuse and Mental Health Services Administration, 2015). Similarly, Kodjo and Auinger (2004) found that emotionally distressed African American youth received mental health counseling significantly less than their white or Latino counterparts. Costello and colleagues also found that "In specialty mental health settings (i.e. psychologists or psychiatrists offices) [non-Latino] Black adolescents were less likely than white youths to receive care for psychiatric disorders." (Costello et al., 2014, p. 361)

Mental health services for youth are especially fragmented often resulting in less than adequate mental health care. Few available studies describe the health care experiences of racially diverse youth (U.S. Department of Health and Human Services, P. H. S., Office of the Surgeon General, 2001). African Americans, for example, are often undercounted in household surveys because of overrepresentation in institutional settings such as jails, shelters, and foster care (Davis, 2011; Lindsey et al., 2010). The first contact with a mental health care provider is often in a primary care setting and, thus, many youth are likely to receive their mental health care in primary care settings rather than in specialty mental health services.

Previous research has found a link between stigma and perceptions of mental health services among African American youth. For example, Rose, Joe, and Lindsey (2011) examined the relationship between depression severity and perceived stigma regarding mental health treatment among African American adolescents. They found that approximately half of the adolescents classified as being mildly to severely depressed reported higher perceived stigma associated with receiving mental health treatment. These findings are consistent with research by Breland-Noble and colleagues who found that African American adolescents revealed stigma toward mental health treatment for depressive illness (Breland-Noble et al., 2010). Thus, stigma remains a barrier to mental health service utilization among African American youth.

As indicated by various research studies, few African American youth received mental health treatment in specialty mental health settings. Instead, primary care settings often are the gateway to mental health care. As such, primary care settings have become increasingly important portals for identifying undiagnosed or untreated mental disorders. Many reasons have been cited for this trend, including lack of availability of culturally competent mental health specialists, income and insurance issues, stigma surrounding mental illness, and lack of trust in the relationship between families, youth, and physicians (Breland-Noble et al., 2011; Unützer, Schoenbaum, Druss, & Katon, 2006; US Department of Health and Human Services, 2003). Various elements of integrated health care appear to have particular appeal for achieving better outcomes with racially diverse populations (Dwight-Johnson et al., 2010; Ell et al., 2010). The most successful elements of this approach address the socio-cultural needs of the focal audience, such as family involvement in treatment (Bao et al., 2011).

Integrated health care has gained significant momentum since its introduction in the US Surgeon General's 1999 report on the mental health of Americans. Empirical evidence of the overall effectiveness of integrated health care in reducing disparities and improving outcomes for racially diverse youth is limited due to a lack of available data and most studies being underpowered to test racial subgroup effects of treatment (Butler et al., 2008). Nonetheless, promising practices using key strategies exist and are being successfully implemented by integrated health care programs (Sanchez, Chapa, Ybarra, & Martinez, 2012). The Institute of Medicine report, *Unequal Treatment: Confronting Racial and Ethnic Disparities in Health Care*, concluded that a variety of health care system issues appear to contribute to the persistence of health disparities for racially diverse populations (Smedley et al., 2002) including the underrepresentation of people of color in the health care professions and among those providing care. In addition, access to high-quality subspecialists, diagnostic imaging and emergency hospital admissions are difficult to secure. Finally, communities of color bear a disproportionate burden of access to fewer sources of health care than white communities. Overall, disparities in mental health care for African American youth do not occur in isolation (Alliance for Health Reform, 2006) and are part of a larger framework of the experience of discrimination and racism that many African Americans face in everyday American life (Clark, Salas-Wright, Vaughn, & Whitfield, 2015).

Although integrated care approaches vary in terms of the best means of achieving integration, some essential elements include systematic clinical care management provided by a social worker, registered nurse, or other licensed mental health provider, proactive follow-up and outcome monitoring. To integration care more effectively, active engagement will be necessary between psychiatric consultation and primary care physicians through a care manager to proactively treat mental health problems, such as depression and anxiety, especially among populations who use primary care settings for their mental health concerns (Unützer et al., 2006).

The care manager is in the center of this model, with a primary function to assist patients with mental disorders and facilitate communication between the primary care providers and the mental health specialist (Thielke, Vannoy, & Unutzer, 2007). The chief roles of the care manager include educating patients, involving and supporting treatment decisions, encouraging medication adherence, monitoring treatment outcomes, providing brief counseling, and facilitating consultation with the psychiatrist as needed (Oxman, Dietrich, & Schulberg, 2005). The functions of the care manager can address significant barriers to treatment such as stigma, limited knowledge of mental disorders, poor doctor–patient communication, and treatment engagement and adherence, which disproportionately affect racial and ethnic minority youth (Bao et al., 2011). However, those functions may be limited unless culture-specific strategies are employed to engage and retain minority patients and families in treatment (Bao et al., 2011).

In an effort to assess models of integrated care, the level of integration into community settings, and to describe barriers to successful programs, the Agency for Healthcare Research and Quality (AHRQ; Butler et al., 2008) provided a comprehensive report based on data from multiple resources beyond what is typically available in the literature. The report's findings showed positive outcomes for the integrated health care approach in general. However, the report also noted that it could not determine which elements of integrated care were linked to better outcomes or whether it was simply incorporating mental health treatment into the primary care setting that improved outcomes.

The AHRQ report concluded that addressing patient preferences for psychotherapy rather than focusing on medication resulted in long-term improvements in depression for diverse patient populations (Butler et al., 2008). However, the question of who benefits most from integrated care could not be answered. In addition, financial barriers remained a concern to long-term implementation. Although the evidence appears to be strong in support of integrated health care, the report suggests that specific elements, disease conditions, and racially diverse and vulnerable populations who may benefit from integrated care are still not understood because of a lack of data for specific populations, including people of color who are missing in these research efforts (Butler et al., 2008). This is especially true for adolescent populations. A recent randomized clinical trial for depressed adolescents (Richardson et al., 2014) demonstrated promise for a collaborative care model within the primary care setting. Although more studies are needed, findings indicated greater decreases in depressive symptoms

12 months after the intervention when compared with youth in the control group. As with adult samples testing this model, the sample in the adolescent study was overwhelmingly white. Consequently, no information has been provided on the effectiveness of this strategy for African American or other youth of color.

Clearly effective treatment is better than no treatment at all. However, for psychosocial interventions that might be sensitive to social and cultural circumstances, there is the question of whether interventions are as effective for African Americans as they are for whites. Few researchers have addressed this question when considering either novel, standardized treatments or treatment-as-usual. Among the few studies available for review, many included small samples of participants and lacked adequate controls. One preliminary effort found that African Americans and whites responded similarly to treatment for posttraumatic stress disorder (Zoellner, Foa, & Brigidi, 1999). Cognitive-behavioral therapy (CBT), which focuses on altering demoralizing patterns of thought, has been shown to be equally effective in reducing anxiety among African American and white children and adults (Friedman et al., 1994; Treadwell, Flannery, & Kendall, 1995), but the literature on the efficacy of CBT for the treatment of depression and other disorders in African American youth is sparse (Breland-Noble et al., in press).

To address some of the individual and systems barriers to treatment for a socioeconomically diverse sample of depressed African American youth, Breland-Noble, Bell, and Nicolas (2006) developed a family-based intervention to increase readiness for psychiatric treatment and published promising results. The intervention was developed using a patient and community centered approach resulting in a brief intervention (Breland-Noble, 2012; Israel, Eng, Schulz, & Parker, 2005; University of Maryland & Westat, 2013). The multiple-session intervention included one telephone segment and two in-person visits with a goal of providing a culturally informed intervention to addressed family and youth concerns about treatment in efforts to increase participation in outpatient care. In the final analysis from the pilot study ($N=16$), findings indicated a non-statistically significant improvement in reducing the “no-show” rate of African American patients. In other words, study patient completers from the experimental groups, were less likely to “no-show” for their first depression treatment appointment when compared with the delayed control patient group. Findings from this study allowed the study team to examine the feasibility and acceptability of the intervention and establish an effect size to assist with power calculations for further development of the intervention (Breland-Noble, 2012). The research team is currently designing a moderately sized efficacy trial to examine the intervention in a larger sample of African Americans. The types of interventions described in this section are needed to reduce the prevalence of unmet mental health need in African American children and adolescents.

Using the National Medical Expenditure Survey, a large, community survey, Cunningham and Freeman (1996) found that African American children were less likely than white children to have made a mental health outpatient visit. The difference could not be attributed to underlying socioeconomic, family-related, or regional differences between the groups. Among children who received outpatient mental health treatment, African Americans and whites had similar rates of receiving care from a mental health specialist. Several smaller studies support this finding. One study considered mental health care provided by specialists, by physicians and nurses, and in the schools (Zahner & Daskalakis, 1997). African American children and youth were less likely than whites to receive treatment, and their underrepresentation varied little, no matter which source of treatment was used. Other school-based studies have reported similar findings (Cuffe, Waller, Cuccaro, Pumariega, & Garrison, 1995); however, African American youth who had larger social networks were more likely to use school-based services for depression than those with smaller networks (Lindsey et al., 2010).

Few African American children and youth are in psychiatric inpatient care (Barksdale, Azur, & Leaf, 2009; Chabra, Chaves, Harris, & Shah, 1999; Lindsey et al., 2010), but there are many in residential treatment centers (RTCs) (Firestone, 1990). RTCs provide residential psychiatric treatment similar to that available in hospitals, but they are more likely to be funded from public sources. In many cases, it is not parents, but child welfare authorities and the juvenile justice system that initiate treatment for African American children who are overrepresented in these institutions.

The child welfare system is a principal gatekeeper for the mental health care of many African American youth (Gudino, Martinez, & Lau, 2012; Halfon, Berkowtiz, & Klee, 1992; Takayama, Bergman, & Connell, 1994). African American children make up about 45 % of the children in public foster care and more than half of all children waiting to be adopted. Children come to the attention of child welfare authorities because they are suspected victims of abuse or neglect. Often they are removed from their homes and placed elsewhere—and then again placed elsewhere if an initial placement cannot be continued. These situations carry a risk for youth not receiving needed mental health care. Garland, Hough, McCabe, Wood, and Aarons (2001) found that the prevalence of psychiatric disorders in the child welfare system was lower than rates for youth in the mental health system. However, they also found that the prevalence of psychiatric disorders in the child welfare and the juvenile justice systems was high enough to warrant concern. Because these systems are not adequately prepared to address these needs. This places African American youth at a distinct disadvantage for receiving mental health care because these systems have the most contact with African American children and adolescents in need of psychiatric care.

Several studies focusing on metropolitan areas have found an overrepresentation of African American children and youth in public mental health services (Bui & Takeuchi, 1992; McCabe et al., 1999). Consequently, access to services via the child welfare or juvenile justice system may not result in the intended treatment. In an assessment of use of different sectors of mental care by African American and white youth, Barksdale et al. (2009) found that youth referred for mental health care from the juvenile justice system were less likely to receive services than those referred from a mental health agency.

Studies of children and youth have generally shown positive effects from actual treatment when treatment is available. African American and white juvenile offenders were assisted comparably by multisystemic therapy, which engages a network of supportive figures in the helping effort (Bourdin, Hennegger, Blaske, & Stein, 1995). In addition, African American youth showed positive outcomes for medication for ADHD (Brown & Sexson, 1988).

Conclusion

Statistics substantiate mental health problems in children and adolescents revealing, for example, that one in five youth experience significant symptoms of emotional distress and approximately 10 % of children and adolescents suffer from emotional disorders which impair their personal, school, and family lives (Centers for Disease Control and Prevention (CDC), 2013; Knopf et al., 2008). Some research has reported more psychiatric problems and greater risk for psychiatric comorbidity problems among African American children and adolescents as compared to other racial/ethnic groups while other research has reported white youth being at greater risk than African American youth for specific disorders. Family and school experiences have been found to be significant protective factors against mental health problems for African American children and adolescents.

Deficiencies in research on the mental health of African American youth exist across a broad spectrum of considerations. It is important to evaluate these deficiencies within the context of race, culture, and class and not use an analysis that pathologizes diverse racial and ethnic communities as inherently problematic, but rather underscores the existence of conditions that have in many ways been created and sustained by social institutions that have not adequately addressed root causes, consequences, and cures for mental health problems affecting African American youth (Maton & Zimmerman, 1992). The maltreatment of people of color in US society and subsequent social conditions are manifested in health and mental health outcomes. The statistics in this chapter quantifiably demonstrate the inequities that vary by race, culture, and class when considering the mental health of African American children and adolescents and the services to which they have access and utilize.

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2

Culturally Relevant Diagnosis and Assessment of Mental Illness

Erlanger A. Turner and Catherine J. Mills

Introduction

Psychological assessment is an important aspect in the diagnosis and treatment of psychiatric conditions. Assessment in clinical practice typically falls under the domain of psychology (McLeod, Jensen-Doss, & Ollendick, 2013) and psychological assessment is seen as a tool for mental health professionals such as a psychologist or psychotherapist. Psychological evaluations are useful to obtain information from patients to provide diagnostic clarification and to assist with intervention planning (Tiegreen, Braxton, Elbogen, & Bradford, 2012). In psychiatric settings, assessment fulfills several objectives such as differentiating typical from atypical behavior, highlighting an individual's strengths and weaknesses, and classifying a particular diagnosis to assist with treatment planning (e.g., Schroeder & Gordon, 2002). In child and adolescent mental health, the purpose of psychological assessment is to identify whether a disorder is present that is different from the behavior that would be expected in a typically developing child and that is interfering with the child's functioning (Jensen-Doss, McLeod, & Ollendick, 2013).

According to Jensen-Doss et al. (2013), psychological assessment has several important purposes: (1) to clarify a diagnosis to facilitate communication among professionals which provides a clinical picture of the patient's difficulties, (2) to assist the clinician in treatment planning and intervention selection consistent with evidence-based treatment, (3) to provide information necessary to obtain authorization for services or accommodations, and (4) to monitor treatment progress or outcomes to determine whether a child or adolescent continues to meet criteria for a diagnosis over the course of treatment. Psychological assessment may also assist with school consultation to develop appropriate school interventions and accommodations.

In order to obtain the most useful information through diagnostic assessment, multiple methods or approaches must be utilized. Conceptualization of the youth must incorporate a developmental psychopathology perspective, as well as combine the use of nomothetic and idiographic assessment tools (McLeod et al., 2013). Nomothetic assessment tools provide information about a child or adolescent compared to other youth on a similar domain. These assessment measures include parent or youth rating scales that allow the clinician to compare the child's functioning to normative data that has typically been gathered

E.A. Turner (✉)
Department of Social Sciences,
University of Houston-Downtown,
1 Main Street, Suite N-1009, Houston,
TX 70002, USA
e-mail: TurnerE@uhd.edu

C.J. Mills
Independent Practice, Richmond, VA, USA

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by the test developer. Conversely, idiographic assessment tools obtain data that is representative of the individual's difficulties and strengths. Idiographic tools allow the clinician to gather information to help conceptualize the youth within their own environment and may include direct observation methods, behavioral assessment, or unstructured clinical interviews. Specific to youth, assessment of children and adolescents requires knowledge and skills from several domains including: developmental principles, child psychopathology, psychometric theory, diversity and cultural issues, and therapy process and outcome research (McLeod et al., 2013).

The goal of this chapter is to enhance the clinician's ability to produce a valid evidence-based assessment (EBA) with African American youth and to assist mental health professionals in understanding key factors to recognize when reviewing the results of a psychological evaluation. We begin with a discussion of historical experiences that impact African Americans' utilization of mental health care. Then, we provide an overview of EBA, followed by a review of the current literature on assessment with African American youth and conclude with future directions for research and clinical practice.

EBA in Clinical Practice

EBA is described as an approach to clinical evaluation that utilizes science and theory to guide the assessment process (Jensen-Doss et al., 2013). Given the focus on providing evidence-based treatments (EBTs), EBA has been emphasized in an effort to strengthen the ability of clinicians to enhance their clinical practice and treatment effectiveness. Although both EBA and EBTs are promoted, there remains a gap between the research and clinical practice. According to the literature, clinicians are not consistently engaging in EBA practices as recommended (e.g., Jensen-Doss, 2005, 2011). For example, one study using licensed psychologists suggested that an unstructured clinical interview was the most common and often only assessment method used to provide a treatment diagnosis (Jensen-Doss & Hawley, 2010). In the age of managed mental health care, EBA should be considered integral to the treatment process. Some have noted that effective treatment depends on accurate assessment rather than solely on subjective decision making (McLeod et al., 2013). Psychological assessment could contribute to behavioral health care's capacity to provide positive payoffs such as reduced medical cost and improved treatment outcomes (Jensen-Doss et al., 2013; Quirk, Strosahl, Kreilkamp, & Erdberg, 1995). Therefore, it is highly important for the clinician to become aware of EBA and to implement these practices within their clinical work. However, psychological assessment in clinical practice has continued to decline as a result of stipulations by managed health care and the limited time of clinicians to dedicate to psychological assessment (e.g., Meyers et al., 2001).

More recently, clinically based diagnosis—unstructured assessment guided by clinical judgment—has dominated the assessment area. Clinically based diagnosis involves the clinician conducting an unstructured clinical interview to follow-up on their initial impressions by asking questions to rule-in or -out a diagnosis (Jensen-Doss, 2005). There are several reasons why clinically based diagnosis is most commonly used in practice. First, clinicians often have a limited amount of time to complete an initial diagnostic evaluation given time constraints placed on them by third party payors (i.e., insurance companies). Second, many clients/patients are anxious to initiate treatment and the likelihood of treatment dropout may increase if they feel that their needs are not being addressed. Although clinically-based diagnosis is often utilized over evidence-based diagnosis, it has been found to be less accurate and less reliable than evidence-based diagnosis. One study found that combining clinical and structured interview methods (i.e., EBA approach) appeared to improve diagnostic accuracy versus clinical methods alone (Basco et al., 2000). Accuracy of judgments can also vary as a function of the client's race, social class, or gender (Garb, 1997; Whaley, 2001). For example, numerous authors have reported that race bias occurs when judgments made about White clients are more accurate than those made for Black clients (Garb, 1996; Whaley, 2001; Whaley & Hall, 2009). This may happen as a result of solely examining diagnostic criteria without further inquiry into possible cultural/situational explanations of the symptoms. The literature notes that some clinicians may be insensitive to cultural aspects of symptoms (e.g., paranoia) and neglect to consider how African Americans lack of trust of mental health professionals results in misdiagnosis (Whaley, 2001). Clinicians also have the tendency to overlook less severe symptoms (e.g., depression) in African Americans and over-diagnose more severe symptoms such as schizophrenia (e.g., Frank, 1992; Whaley, 2001). These errors in diagnosis are often the result of only using a clinical interview during the assessment phase of treatment. Given these concerns, it is important that evidence-based diagnosis be incorporated into clinical practice.

There are numerous reasons to address gaps in EBA with African American youth. First, with the emphasis on EBA it is necessary to determine whether the current assessment tools are equivalent across racial, ethnic, and cultural groups (Dana, 1996; Pina, Gonzales, Holly, Zerr, & Wynne, 2013). Second, the literature is full of studies that provide examples of misdiagnosis as a result of neglecting the importance of racial or cultural influences (Aklin & Turner, 2006; Dana, 1996; Pina et al., 2013). As previously noted, some clinicians over-diagnose symptoms in ethnic minorities or judge symptoms to be more serious when reported by ethnic minority patients (Aklin & Turner, 2006). Given the history of African Americans and the mental health system, it is pertinent that improvements be made to strengthen the assessment process to allow clinicians to obtain a more accurate diagnosis and subsequently improve treatment planning. McLeod et al. (2013) hypothesize that when clinicians do not follow a predetermined set of questions or procedures, assessment techniques are susceptible to bias. Therefore, having a better understanding of EBA approaches with African American youth is extremely important.

Current Status of Assessment with African Americans

According to the literature, there is a long-standing history of over- and under-diagnosis of various psychological disorders in African Americans (e.g., Garb, 1997; Kales et al., 2000; Pina et al., 2013). As noted above, a clinical interview (clinically based diagnosis) is one of the most often used tools in psychological assessments (Aklin & Turner, 2006). Proportionately far more ethnic minorities than European Americans are likely to be misdiagnosed when assessed using this method, specifically for psychiatric disorders (Garb, 1996; Whaley & Hall, 2008, 2009). This is particularly true when open-ended clinical interviews are utilized (Basco et al., 2000). Some have postulated that the reason for over- and under-diagnosis is related to how clinicians misinterpret information that is observed or reported by African Americans during psychological assessments or diagnostic interviews (Whaley & Hall, 2009). For example, some have noted that clinical psychologists often fail to identify specific aspects of their culture that are thought to influence behavior (Whaley, 2001).

In a meta-analysis of psychological assessment data published from June 1974 through 1996, it was found that African American and Latino (Puerto Rican) patients were less likely than European American patients to be diagnosed as having a psychotic or affective disorder, and more likely to be diagnosed as having schizophrenia (Garb, 1997). Findings noted that this occurred even when measures of psychopathology did not indicate that a diagnosis of schizophrenia was justified (Garb, 1997). This study also found no significant racial biases in assessment of the level of adjustment or diagnosis of personality traits; and psychiatric symptoms in African American children and adults compared to European American. This implies that if there are no biases in the assessment due to clinicians' behaviors, then the measures used to conduct the assessment may not have been clinically appropriate. Not only do clinicians need to be aware of EBA methods, but they must also evaluate and determine that that the measures used in their evaluation are culturally and clinically appropriate. This would involve making sure that the measures are valid for use with African American patients.

In a study on differences in patterns of symptom attribution in diagnosing schizophrenia between African American and non-African American clinicians, it was found that African American clinicians were less influenced by communication barriers and dysfluencies in judging schizophrenia than were non-African American clinicians. The study also found that African American clinicians recognized differences in affect, speech, and communication as culturally acceptable, and therefore, not as negative signs indicative of schizophrenia. Normative cultural wariness of powerful institutions and individuals can make apparently suspicious and evasive communication on the part of African Americans dubious as signs of severe psychopathology (Trierweiler et al., 2006; Whaley, 1997, 2001). To effectively treat mental illness in African Americans, clinicians need to be aware of their biases and cognizant of racial and cultural variations in symptomatology.

Another way to understand cultural expressions of symptoms is to differentiate between paranoia and cultural mistrust. The central hypothesis is that clinicians' misinterpretation of cultural mistrust as clinical paranoia contributes to the misdiagnosis of African Americans as schizophrenic (Ridley, 1984; Whaley, 2001). A number of researchers suggest assessing an African American client's cultural mistrust during the assessment process (e.g., Terrell & Terrell, 1981; Whaley, 2001). Cultural mistrust is often measured using the *Cultural Mistrust Inventory* (CMI; Terrell & Terrell, 1981), which assesses African Americans' mistrust of Whites due to past experiences and contemporary forms of racism. The CMI has also been revised for use with children—*Cultural Mistrust Inventory for Children* (see Terrell & Terrell, 1996). During the evaluation, the conversation on racism/cultural mistrust should be geared toward the patient's or client's needs and not the clinicians' desire to espouse their views of racism (Whaley, 2001).

There have been many advances in understanding ethnic identity development since the creation of the CMI (e.g., Phinney, 1989; Worrell, Cross, & Vandiver, 2001). Ethnic identity is one type of group identity that is important to the self-concept of members of ethnic minority and racial group (Yasui, Dorham, & Dishion, 2004). Ethnic identity formation involves developing an understanding and acceptance of one's own groups in the face of societal stigmatization (Phinney, 1989). Whereas ethnic identity is important to consider when conceptualizing the client and their problems, cultural mistrust may result in behaviors that will impact diagnostic impressions. Therefore, it is still important to have an objective measure of the patient's cultural views and possible cultural mistrust to provide a more detailed assessment of the patient. The information can then be used therapeutically to eliminate the misdiagnosis of psychopathology. Additionally, the cultural experiences of the client can be explored in a richer context given the information provided from the objective assessment.

It is imperative that clinicians are cognizant about how race and culture can affect the data and/or results of a psychological assessment. Studies have shown that cultural mistrust impacts clinical symptoms and behaviors in both African American children and adults (e.g., Terrell & Terrell, 1983, 1996; Whaley, 2001). For example, high levels of cultural mistrust in Black students have been found to be associated with poor IQ test performance when the examiner was White versus a Black examiner (Terrell & Terrell, 1981; Terrell, Terrell, & Taylor, 1981; Whaley, 2001). Cultural mistrust in African American youth and occupational expectations has also been evaluated. Terrell, Terrell, and Miller (1993) found that high cultural mistrust scores in African American youth were associated with lower occupational expectations. Given the above information, some have suggested that assessment measures examining cultural/racial themes be incorporated in the assessment process for African Americans. Including measures such as the CMI along with diagnostic assessments may reduce the number of African Americans being misdiagnosed with paranoid schizophrenia.

In addition to diagnostic issues related to assessment methods, there are concerns about many clinicians lacking skills in cultural competence. Sue, Ivey, and Pedersen (1996) define cultural competency as a clinician having awareness of his or her beliefs and biases about a racial/cultural group, having knowledge about the client's culture, worldview, and expectations, and having the ability to intervene in a manner that is culturally sensitive and relevant. Furthermore, Whaley (2001) purports that to improve assessment and treatment with African Americans it is beneficial to incorporate the cultural mistrust construct. Cultural mistrust has been defined as paranoia in the form of mistrust of Whites that exist among Blacks due to past and contemporary experiences of racism and oppression (e.g., Whaley, 2001; Whaley & Hall, 2009). Given issues with misdiagnosis and over-diagnosis of pathology in African Americans, it appears that the concepts of cultural competency and cultural mistrust impact clinicians and clients' interactions. The lack of cultural competency and incorporation of the cultural mistrust construct may ultimately adversely influence the diagnostic and assessment process with ethnic minority clients.

Given the importance of cultural competency, several steps must be taken by clinicians to ensure they are gathering information in a manner that reduces biases, as well as, takes into account cultural and racial factors that impact diagnosis. Knowledge of the patient's culture and sensitivity to its basic premises is imperative for quality treatment (Seibert, Stridh-Igo, & Zimmerman, 2002). They note that providing culturally competent services requires that the health professional be sensitive to the differences between groups, to the differences in outward behavior, and also to the attitudes and meanings attached to emotional events (Seibert et al., 2002). To help clinicians with enhancing their cultural sensitivity and competence with providing mental health services, it may be helpful to apply specific skills (Seibert et al., 2002). They provide a checklist to assist clinicians with steps to take in order to improve their cultural sensitivity and awareness. The authors emphasized that the following areas should be considered when working with individuals from diverse backgrounds: communication method, language barriers, cultural identification, the client's understanding of the issues discussed, spiritual beliefs, the client's trust of clinician, an assessment of the client's expectations of treatment or recovery, adherence to culturally appropriate assessment practices, and provider biases. Given the historical perspective of many African American youth, it will be important for the clinician to obtain information on the client's cultural identity (e.g., does the youth have any cultural beliefs that may help the clinician understand the client's functioning), religious or spiritual belief system (e.g., does the youth have any rituals or beliefs in a higher power that contribute to recovery), and trust of the clinician (trust will be important to get the youth and their family to adhere to recommendations). Finally, the clinician must abide by ethical standards and practices. This includes the clinician addressing personal biases about African American youth, as well as being familiar with EBA practices. In order to provide culturally competent services, tests must be administered and interpreted based on recommended practices (Jensen-Doss et al., 2013; Seibert et al., 2002).

These recommendations provide general guidelines that may be helpful; however, certain aspects may not apply to African American youth or mental health care. For example, Seibert et al. (2002) note that interpreters may be needed to provide culturally sensitive services due to language barriers. Whereas this factor may be particularly important for non-English speaking individuals, an interpreter is not typically needed for working with African Americans. Although an interpreter may not be necessary for working with African American patients, it is important to recognize that there is cultural diversity within the African American communities. For instance, over the last four decades Black immigrants from the British West Indian colonies of Anguilla, the Bahamas, the British Virgin Islands and Jamaica have migrated to the USA (Forsyth, Hall, & Carter, 2014). It may be appropriate to seek consultation from a cultural liaison or interpreter—an individual with expertise in cultural differences. Cultural interpreters or a culturally specific support team are helpful to allow the clinician insight into how the patient's culture shapes understanding and expression of symptoms (Eisenbruch & Handelman, 1990; Seibert et al., 2002).

Furthermore, clinicians should consider using the DSM-5 *Cultural Formulation Interview* [CFI; American Psychiatric Association, 2013) to help conceptualize the patients' problem and their perceived attitudes about the causes of their difficulties. Some have provided additional things to consider when applying a cultural formulation to improve implementation in clinical practice (Aggarwal, Nicasio, DeSilva, Boiler, & Lewis-Fernández, 2013). To address the ambiguity from questions on the CFI that may be unclear, it has been suggested that questions related to cultural identity should be phrased to capture aspects of the individuals' background that include community, race or ethnicity, and language (Aggarwal et al., 2013). The following prompt is recommended to reduce ambiguity in the questions on cultural identity (Aggarwal et al., 2013):

> Sometimes, aspects of people's background or identity can make their problems better or worse. By background or identity I mean, for example, the communities you belong to, the languages you speak, where you or your family are from, your race or ethnic background, your gender or sexual orientation, and your faith or religion.

Using the prompt above allows the patient to reveal cultural factors that could potentially impact or explain the clinical presentation. Furthermore, it allows the clinician to understand the cultural contexts that are present and important to consider when conceptualizing the patient and their difficulties. The DSM-5 Outline for Cultural Formulation (OCF) is a framework to use the CFI to systematically address cultural factors: the individual's cultural identity, cultural conceptualizations of distress, psychosocial stressors and cultural features of vulnerability and illness, cultural features of the relationship between the patient and clinician, and an overall cultural assessment (American Psychiatric Association, 2013).

EBA with African American Youth

There is substantial research on EBT and EBA, but the literature on EBA with ethnic minorities is very limited. In the youth area alone, more than 30 distinct treatments have been classified as "probably efficacious" or "possibly efficacious" for ethnic minority children and adolescents (Huey, Tilley, Jones, & Smith, 2014). Additionally, in 2005 the Journal of Clinical Child & Adolescent Psychology published an entire issue on EBA with youth for both externalizing and internalizing problems (e.g., Klein, Dougherty, & Olino, 2005; Mash & Hunsley, 2005; Pelham, Fabiano, & Massetti, 2005). Although no specific evidence was provided on the use of evidenced-based assessment with ethnic minority youth, the importance of ethnicity was highlighted. For example, Kazdin (2005) states that when developing or using a measure, we ought to take into account ethnicity, race, culture, sex, age, and developmental stage of the individual. However, the literature remains sparse in terms of assessment measures that have been shown to be reliable and valid for use with ethnic minority youth (see Pina et al., 2013). Furthermore, psychometric data on psychological instruments with African American youth is an area of much needed research.

Research highlights the importance of examining ethnic difference to inform modifications to scale items and structure, as well as, how to best administer and interpret scores based on individuals from different cultures or ethnic backgrounds (e.g., Trent et al., 2012). Existing data provides basic reliability and validity estimates and a few measurement equivalence studies report on widely used clinical measures. EBA with African American youth remains in its early stage of development. Table 2.1 provides an overview of assessment instruments that identify some key findings on using these measures with African American youth. Although some findings are available on the reliability and validity of these instruments with African American youth, there is room to improve our research and clinical practice with this population.

Table 2.1 Evidence-based measures for assessing clinical problems in African American youth

Measures	References	Overall findings
Global rating scales		
ASEBA: Child Behavior Checklist (ages 6–18); Teacher's Report Form; Youth Self-Report	Lau et al. (2004)	In African Americans, Cronbach's alpha ranged from 0.87 to 0.95 which is similar to Whites/Caucasians.
Behavior Assessment System of Children (BASC-2)	Mano et al. (2009)	Cronbach's alpha ranged from 0.86 to 0.96.
Internalizing symptoms rating scales		
Center for Epidemiological Studies Depression Scale	Brown, Meadows, and Elder (2007)	Cronbach's alpha ranged from 0.76 to 0.80 across data collection points for African Americans and 0.81 for Whites.
Children's Depression Inventory	Cole, Martin, Peeke, Henderson, and Harwell (1998), Kistner, David-Ferdon, Lopez, and Dunkel (2007), and Randall and Bohnert (2009)	Across studies, alpha coefficient was 0.81–0.89 for African Americans and 0.82–0.90 for Whites.
Fear Survey Schedule for Children-Revised	Neal et al. (1993)	Cronbach's alpha was 0.96 for both African American and White youth.
Multidimensional Anxiety Scale for Children	McLaughlin, Hilt, and Nolen-Hoeksema (2007)	Alpha coefficient was 0.86 for African Americans and 0.92 for Whites.
Revised Children's Manifest Anxiety Scale	Trent, Buchanan, et al. (2012)	Cronbach's alpha was 0.83 for both African American and White youth.
Reynolds Adolescent Depression Scale	Stein et al. (2010)	Alpha coefficient was 0.91 for African Americans and 0.90 for Whites.
Social Phobia and Anxiety Inventory for Children	McLaughlin et al. (2007)	Cronbach's alpha was 0.92 for both African American and White youth.
State-Trait Anxiety Inventory for Children	Walton, Johnson, and Algina (1999)	Alpha coefficient ranged from 0.89 to 0.92 for African Americans and 0.86–0.89 for Whites.
Externalizing symptoms rating scales		
Eyberg Child Behavior Inventory	Querido, Warner, and Eyberg (2002)	Cronbach's alpha was 0.97 for African Americans.
IOWA Conners Rating Scale	Reid, Casat, Norton, Anastopoulos, and Temple (2001)	Cronbach's alpha ranged from 0.83 to 0.87 across both subscales.
Swanson, Nolan, and Pelham-IV Scale (SNAP-IV)	Bussing et al. (2008)	Cronbach's alpha ranged from 0.79 to 0.94 across scales.

ASEBA Achenbach system of empirically based assessment

The reliability and validity of these assessment measures with African American youth vary from "poor" to "superior." Between-study variability can occur for several reasons including possible variations in within-group cultural heterogeneity and the fact that reliability estimates are based on "basic" inter-item correlations, whereas invariance tests are more robust (Pina et al., 2013). Given the variability in assessment methods and the possibility of obtaining nonequivalent information across ethnic groups, it is important that the provider be aware of cross-cultural or ethnic differences in gathering information regarding clinical symptoms. Psychologists and examiners who administer psychological assessments and provide reports should include any information in their reports noting how culture or ethnicity may play a role in interpreting the data. For example, if African American youth are found to report lower scores on anxiety measures, statements should be included in the psychological report to highlight how the patient's scores compare to their normative group (Pina, Little, Wynne, & Beidel, 2014).

Psychologists have a responsibility to communicate the cultural competency of the assessments they use in the psychological assessment report (American Psychological Association, 2002). For a non-psychologist, it is important to ask the person conducting the assessment about the cultural competency of the assessment tools utilized in the psychological assessment. Information on an assessment's cultural competence is often more easily accessible for psychologists than for non-psychologists. This information (e.g., validity with African American youth) is provided in the psychometric sections of the assessment manuals, to which non-psychologists generally do not have access. Using layman's terms and non-technical jargon, the psychologist should clearly detail in the psychological assessment report the culturally relevant information for the patient being assessed. The cultural make-up of the standardization sample can be included in the report. Additionally, as detailed earlier, whether the results are being compared in a nomothetic (comparing the youth's results to a normative sample) versus idiographic fashion (comparing the youth's results to their personal strengths and weaknesses) should be detailed in the results section of the assessment report.

During the initial intake interview (i.e., prior to the testing session), it is recommended that parents of African American children ask questions regarding the assessment tools that will be utilized and the cultural relevance of the assessment tools, as well as, the clinician's experience testing African American youth. For other professionals, such as clinical social workers, psychiatrists, and special education teachers, these individuals are encouraged to ask specific questions about the psychometrics (i.e., reliability and validity) of the assessment tools used to diagnose African American youth. Sample questions may include: "What is the ethnic make-up of the standardization sample for this assessment?" and "Are the results of the assessment being compared to the youth's age-related peer group or are the results comparing the individual's personal strengths and weaknesses?"

Furthermore, mental health professionals or individuals who are reading these reports should also examine the results to determine if the psychologist or evaluator provided information demonstrating culturally competent practices. First, the summary of the report should identify how the African American client's scores differ from similar youth. By using the child's normative group (i.e., other African American children) the testing will provide a more accurate representation of the child's functioning. Second, the recommendations should be feasible for the youth and their family. If the evaluator provides recommendations that cannot be performed it does not serve the client or their family (Jensen-Doss et al., 2013).

Reliability and Validity Issues with Assessment of African American Youth

Overall, the literature notes that some of the measures most often used for assessment and diagnosis with African American youth have limited research targeted at examining their reliability and validity. Few assessment measures have been developed specifically for use with African American youth and the use of culturally nonequivalent measures pose a risk in terms of accurate diagnosis (Mano, Davies, Klein-Tasman, & Adesso, 2009). In this section, we briefly highlight a few concerns that have been expressed in the literature.

Reliability and validity of measures for use with ethnic groups has important clinical implication. Lack of invariance across ethnic groups can result in poor science, over-diagnosing, and wasted resources (Pina et al., 2014). Therefore, it is imperative that we investigate whether assessment measures developed with primarily European American/White samples provide equivalent information about ethnic minority youth, including for African Americans (Mano et al., 2009; Pina et al., 2014). Despite advances in clinical practice and EBA, few studies have examined the validity of assessment measures across different populations (McLeod et al., 2013). When using diagnostic tools the clinician should take steps to evaluate the literature and testing manual to note whether the assessment measure supports using the tool with African American clients (e.g., Hunsley & Mash, 2007; Pina et al., 2013).

One important issue is construct validity, which consists of functional and scalar equivalence. It is important particularly when instruments are developed and normed with primarily European American youth. Construct validity is demonstrated when the variable being assessed has similar precursors, consequences, and correlates across groups (e.g., Pina et al., 2013). Some research has noted that instruments used to measure psychopathology in youth may not be conceptually equivalent with African American youth. For example, Mano et al. (2009) examined the measurement equivalence of Achenbach's Child Behavior Checklist (CBCL) in a sample of 145 African American parents and caregivers. In their study, the CBCL was found to have "poor fit" for a three-factor structure (i.e., three subscales) in African American youth (as demonstrated in the normative sample) and a two-factor structure (i.e., Internalizing and Externalizing scales) was found to be a better fit for the data. The authors do provide a caveat that this needs to be replicated in future studies to rule out the possibility that the results are due to methodological issues. Some have noted that when conceptual differences are found (e.g., scales do not capture the same information across groups), it may not be culturally sensitive in the assessment of African American youth (Pina et al., 2014). When non-psychologist and mental health providers are reviewing evaluations and psychological reports with African American youth they should note if the report discusses normative data and specifies norms for African Americans. McLeod et al. (2013) specify that if a client is different from the normative sample on characteristics, this might affect the meaning of the client's scale scores, it may invalidate the assessment tool requiring the use of another measure that is more representative.

Similarly, Neal, Lilly, and Zakis (1993) found differences in the factor structure of the Revised Fear Survey Schedule for Children (FSSC-R) among a sample of African American and European American youth. The FSSC-R is a common measure used to screen for internalizing symptoms in youth (e.g., anxiety and fears). The study (Neal et al., 1993) found that the original five-factor structure (five subscales include—Fear of the Unknown, Fear of Minor Injury and Small Animals, Fear of Danger and Death, Medical Fear, and Fear of Failure and Criticism) was not a good fit for the data for African American youth and that a three-factor structure was "superior." These subscales were Fear of the Unknown, Fear of Danger and Death, and Fear of Failure and Criticism. The authors note that some fears in youth may be a function of race or ethnicity. Overall, the studies on the CBCL and FSSC-R suggest that they may be less reliable to measure psychological functioning in African American youth. However, these measures have been identified as "well-established" in the EBA literature (Holmbeck et al., 2008), and therefore continue to be used in clinical assessment with youth. To improve utility of these assessment measures, different norms for interpreting the results may need to be established for African American youth.

Another important consideration is the reliability of psychological instruments. Both functional equivalence (i.e., the construct serves the same function on one group as in another group) and metric equivalence (i.e., do the items vary the same across groups) are important to assessment with ethnic minority youth (Leong, Leung, & Cheung, 2010; Mano et al., 2009). As previously noted, few studies provide information regarding these concepts with psychological instruments. The data from one study using the CBCL provides some information on functional and metric equivalence with African Americans (Mano et al., 2009). The findings did not support the functional equivalence of the CBCL; nor did it provide unequivocal evidence of measurement equivalence. The study did demonstrate that there was stronger support for measurement equivalence on the subscale that measures externalizing symptoms (e.g., conduct problems). This has implications for using the CBCL for screening and diagnosing African American youth. Based on limited findings, it is critical that clinicians use multiple measures to assess psychological symptoms. Otherwise, it will preclude the ability of the provider to accurately assess the child's functioning. This is just a brief example of some of the issues related to assessment with African Americans. Mano et al. (2009) study notes that some constructs being measured may not have the same meaning across groups or that some individuals may interpret the items differently. It is possible that clinicians' judgment may be important to clarify the meaning of items prior to or during the process to strengthen the assessment process with African Americans. Some propose that the role of cultural values in the clinical assessment of ethnic minority youth needs to be examined, with consideration given to whether there should be preference for the use of self-rating scales (alone or in combination with other methods) in assessing psychopathology with this ethnic minority population (Pina et al., 2013). Additionally, some have proposed that for some assessment tools, different cutoffs may be desired for African American youth to help address health disparities. Lower cutoffs may have implications for screening to help with early intervention/prevention efforts, identifying more cases in need of diagnostic "work-ups" to better estimate program effects (Pina et al., 2014).

Given the current status, assessment research must recognize the necessity for cultural competence in assessment and focus research efforts on examining the cross-cultural construct validity of standard psychological instruments (Dana, 1996). If concerns are not addressed, the findings of ethnic minority research will remain questionable similar to when monocultural studies are seen as less stringent when reliability and validity of the measures used is not presented or adequate (Leong et al., 2010). This will subsequently further impact clinical diagnosis and treatment with African American youth.

Applying Therapeutic Assessment with African American Youth

Communication of assessment findings to clients, family members, and others (e.g., advocates, referral sources) is a necessary component of competent assessment practices (Dana, 1996). Therapeutic assessment (TA) is a method of assessment that is collaborative, guided by client's questions or interests, and uses psychological assessment as the centerpiece of a short-term intervention (Tharinger et al., 2009). Given the important of the therapeutic relationship, especially with African American clients, TA may be one way to reduce biases in assessment and improve the diagnosis process. Finn (1996, 2007) has outlined a semi-structured, six-step general model for TA which includes the following phases: (a) construction of assessment questions, (b) standardized psychological testing, (c) assessment intervention, (d) summary and discussion of findings, (e) written communication, and (f) follow-up. There is variation in the steps as applied to children, adolescents, adults, and couples. For a detailed description of the development and step-by-step application of the Therapeutic Assessment model with adolescents (TA-A), see Tharinger, Finn, and Gentry (2013). Additionally, for more on TA as used with preadolescent children and their parents, see Tharinger, Krumholz, Austin, and Matson (2011).

For the scope of this chapter, we briefly discuss applying TA with youth. Similar to TA with adults, the initial session is focused on establishing a collaborative relationship and getting the client invested in the process (in this case the child's primary caregivers). The initial session is focused on information gathering (through a clinical interview) to understand presenting concerns and the child's parents are invited to generate questions about their child, their family, and themselves to guide the assessment (Hamilton et al., 2009). The child should also be encouraged to identify questions they would like to have answered. This information should be obtained with the parent present and again when the child is alone with the clinician. Subsequent sessions should follow standardized assessment procedures to administer and score the psychological test used to assess the patient. After the tests are administered and scored, a feedback session should be held with the family to discuss the results of the evaluation. Finn (2007) recommends that the clinician use the assessment results as an empathetic window into a client's experience and to provide the results in a way that best captures the client's personal story. Hamilton et al. (2009) note that the "feedback session should consists of a meeting with the parents to provide a summary of the assessment results, make connections between what was learned and the parents' original questions, solicit reactions and questions, and review recommendations. The final step is to send written feedback to the family." This is often done in the form of providing the family a copy of the psychological evaluation. Per TA, the clinician/evaluator sends the family a letter reviewing the major points discussed in the feedback sessions which incorporates the personal examples discussed in session.

Numerous studies have shown the benefits of TA to enhance rapport and improve psychological functioning in youth and their families (Austin, Krumholz, & Tharinger, 2012; Hamilton et al., 2009; Michel, 2002; Tharinger et al., 2009). Clinicians who are conducting assessments with African American youth could benefit from the use of TA. The aims of TA are to (a) help parents understand and become more empathetic to their child's challenges through their ongoing processing of the assessment findings from the child's testing and (b) to guide parents in shifting their attitudes toward and interactions with their child in ways that will foster positive child and family development (Tharinger et al., 2009, 2013). Many youth are not interested in participating in psychological assessments for a number of reasons. Primarily, their lack of interest is related to being referred by parents or as part of involvement with the legal system. TA has great potential to be applied to psychological assessment with African American youth. Emerging evidence is available on the use of TA with African American youth (e.g., Guerrero, Lipkind, & Rosenberg, 2011; Rosenberg, Almeida, & Macdonald, 2012). For example, Guerrero et al. (2011) published a case study of an 11-year-old African American girl, which highlighted the importance of integrating race and class in the application of TA. Their study particularly stressed the need to apply Finn's system of categorizing feedback on how readily a family can hear the results. Guerrero et al. (2011) described Finn's 3 Levels to include: Level 1 findings, those that the client can easily accept and verify themselves; Level 2 findings, those that tend to modify the client's way of thinking or amplify the ways that they think about themselves; and Level 3 findings, which is information difficult for the client to tolerate and they might reject or deny. Based on African American's historical perspective with mental health systems, TA could have a positive impact on the diagnostic process when conducting psychological assessments with African American youth.

Future Directions

Enhancing Assessment with African American Youth

It is imperative to consider cultural factors when conducting psychological assessments with African American youth. The American Psychological Association's (APA) Ethics Code includes a subsection that emphasizes that psychologists should only use assessment instruments that are valid and reliable for the population being assessed (American Psychological Association (APA), 2002). Furthermore, it is important that clinicians consider the youth's social environment and use multiple sources of information when conducting assessments with African American youth.

The fifth edition of the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-5; American Psychiatric Association, 2013) has included a section on using a Cultural Formulation during the assessment process. It includes an Outline for Cultural Formation and a CFI that can assist clinicians with the assessment and integration of cultural factors into a patient's diagnosis and treatment plan. Utilizing this information will help to decrease misdiagnosis of African Americans due to misinterpretations of cultural related information. Use of the DSM-5 Cultural Formulation section assists the clinician in incorporating culturally relevant information into their psychological assessment reports and treatment plans.

Using a non-traditional perspective (i.e., Africentric prospective) may also be beneficial. Because traditional assessment practices and clinical therapy are grounded in Western assumptions, these assumptions may not be conducive to effective clinical practice with African American youth. Morris (2001) compared an Africentric approach to clinical practice with African American clients with the more traditional Eurocentric approach. The two theoretical orientations are not mutuality exclusive and various elements of the orientations may need to be incorporated with clients. Morris (2001) compared various aspects of Eurocentric and Africentric characteristics, including values, communication style, history, status, aesthetics, and religion. Being aware of the subtle nuances in these cultural aspects of the client is essential to applying culturally competent psychological assessments when working with African American youth. There are several ways to apply an Africentric approach in clinical practice with African American youth. First, this approach may not be useful with all African Americans. It is necessary for the clinician or evaluator to have information on the client's level of cultural identity and worldview prior to conducting an evaluation (Morris, 2001). Second, the clinician should be mindful of color blindness. It has been noted that expressing color blindness may be insulting to patients. According to Morris (2001), to believe that racial color is not important and that all clients are the same is commendable in a non-race-based hierarchical society, but to assume that it is not important to the African American client is presumptuous and culturally insensitive. Applying the DSM-5 CFI is one way to capture aspects of the entire client to reduce misdiagnosis.

Clinicians should also include such factors as social environment, social stressors, and culturally relevant social supports in the assessment of African American youth. Awareness of the effects of exposure to violence is imperative when working with most African American youth. The link between violence and psychiatric symptoms and illness can be detrimental (Fitzpatrick & Boldizar, 1993; U. S. Department of Health and Human Services, 2001). Fitzpatrick and Boldizar (1993) found that over one-fourth of African American youth who had been exposed to violence had symptoms severe enough to warrant a diagnosis of PTSD. Findings also note that a number of these youth and their families may receive comfort through religion and spirituality (Boyd-Franklin, 2003). As a result, the clinician should consider incorporating the family's spiritual advisors in their treatment. This will provide the clinician with another source of data and having a trusted member of their community involved in treatment may enable the family to more freely discuss personal information. Further, using multiple sources, including self-report measures, parent measures, and teacher measures, in addition to information provided by spiritual leaders, influential family members, i.e. grandparents or individuals with "emotional family ties" but not biological kin will provide a plethora of information culminating into a dynamic assessment of the individual.

In addition to clinicians working to refine their cultural competency when working with African Americans, this population should be highlighted more in empirical research to improve assessment practices and future treatment outcomes. The barriers discussed earlier regarding the stigma of research participation and the mental health community must be overcome. Additionally, studies that include significant proportions of minority youth must report reliability estimates for measures completed by the specific ethnic group(s) being studied (Pina et al., 2013). Further, mental health practitioners must be aware of updated information regarding the treatment of their clients and must be informed of effective clinical practices during their training.

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Part II

Treatment Modalities

3

Pharmacotherapy

Cheryl S. Al-Mateen, Sandra J. Mullen,
and Jessica K. Malloy

Introduction

The Centers for Disease Control and Prevention has reported that 6–7.5 % of children between 6 and 19 years of age are prescribed medication for behavioral or emotional difficulties (Howie, Pastor, & Lukacs, 2014; Jonas, Gu, & Albertorio-Diaz, 2013). There is a disparity of mental health service utilization by minority youth especially among African Americans. Cuffe, Waller, Cuccaro, Pumariega, and Garrison (1995) observed that African American girls received treatment a third less and African American boys at half the rate of non-Hispanic white boys. Zito, Safer, dos Reis, and Riddle (1998) reported African American and Latino youths have a reduced likelihood of being prescribed psychotropic medications compared to non-Hispanic white youth. While two older studies found no disparities between different ethnicities (Burns et al., 1995; Costello & Janiszewski, 1990), recent work has reported that depressed African American adolescents are about half as likely when compared to their white counterparts to receive antidepressant treatment (Wu et al., 2001).

Of the 6.3 % of adolescents who are prescribed psychotropic medications, 4.5 % take one medication and 1.8 % take two or more medications (Jonas et al., 2013). About 3.1 % of non-Hispanic black adolescents take medications, compared to 8.2 % of non-Hispanic white adolescents. Overall, 3.2 % take antidepressants, 3.2 % take stimulant medications, 1 % receive antipsychotics, 0.5 % anxiolytics, sedatives, or hypnotics, and 0.2 % take antimanic agents. While girls are more likely to be prescribed psychotropic agents in general, boys are more likely to be on medications to manage attention deficit hyperactivity disorder (ADHD) symptoms. Children below 100 % of the poverty level or those insured by Medicaid or Children's Health Insurance Program (CHIP) are more likely to receive drugs for emotional or behavioral difficulties (Howie et al., 2014). The use of psychotropic medication is lower in non-Hispanic black (3.1 %) and Mexican–Americans (2.9 %) than non-Hispanic white adolescents (Jonas et al., 2013).

A review of the literature regarding psychopharmacology in African–American youth supports the need for continued research in this growing population of patients. The lack of significant historical psychopharmacologic research exploring potential differences between blacks, whites, and other racial groups in the USA makes this a difficult area of clinical study (Miskimen, Marin, & Escobar, 2003). Very low rates of participation by ethnic minorities in studies result in an inability to assess

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C.S. Al-Mateen (✉) • S.J. Mullen • J.K. Malloy
Department of Psychiatry, Virginia Treatment Center
for Children, Virginia Commonwealth University
School of Medicine, PO Box 980489,
Richmond, VA 23298, USA
e-mail: cheryl.al-mateen@vcuhealth.org

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intra- or interracial efficacy of medication within these groups or in comparison with majority populations, respectively (U.S. Department of Health and Human Services, 2001). As a result, the National Institutes of Health (NIH) Revitalization Act of 1993 mandated that minority group enrollment in clinical trials be of sufficient statistical power to ensure that significant differences in results related to race or ethnicity could be detected (Freedman et al., 1995; US Congress. NIH-Revitalization-Act, 1993). Despite this, there remains a paucity of data that evaluates psychotropic medications in the pediatric African–American population.

Pharmacotherapeutic Perspectives

There are several aspects of pharmacotherapy that can be explored from basic science and clinical research to help identify and explain potential ethnic variability in clinical responses to treatment. An individual's pharmacologic response, metabolism, and elimination of psychotropic drugs are based on genetically determined physiologic systems. The practice of psychopharmacotherapy combines prescribing and psychotherapy skills (Pruett & Martin, 2003). This requires attending to the therapeutic relationship, the patient's affect, attitudes, behavior, and thoughts as well as the social and developmental contexts of the prescriber–patient relationship.

The majority of studies have focused on Caucasian and Asian ethnicities with limited focus on African American and Hispanic populations. Hypotheses for differences in ethnic/race response include pharmacokinetic and pharmacodynamic variations, and non-pharmacological explanations, such as cultural and societal variations in the way psychiatry is practiced (Frackiewicz, Sramek, Herrera, Kurtz, & Cutler, 1997). Pharmacokinetic and pharmacodynamic responses are better explained through pharmacogenomic processes. Pharmacokinetics is the study of how the body absorbs, distributes, metabolizes, and eliminates medications. Pharmacodynamics focuses on how medications affect the body, including, but not limited to, therapeutic and adverse effects. Pharmacogenomics explores the relationship of both of these processes and genetic differences that may relate to ethnic differences and efficacy.

It is challenging to examine the effects of cultural variability on efficacy and adverse effects of psychotropic medications because race and ethnicity are not measurable or defined consistently. Studies from purely biologic perspectives "may undercut research into variability that would be captured by cultural variables" (Stewart, Simmons, & Habibpour, 2012, p. 75). Because there is no acceptable gold standard as to whom or how to assign a participant to the categorical dimensions of race or ethnicity, one can argue that ethnic-based research is less empirical.

Between 1975 and 2014, the evaluation of ethnic differences and response to medications has been increasing, but remains limited with regard to children of diverse populations. The lack of direct evidence makes it necessary to extract and merge information from pediatric and adult African American literature to speculate on the existence of pharmacologic variability among pediatric African American populations. We will explore information specific to African Americans and youth separately. Limited information specific to African American youth will be provided when available.

Clinical Variations in African American Adults

Antidepressants

The evidence comparing depression treatment outcomes by ethnicity has had mixed results. Some studies show poorer outcomes for minority patients than Caucasians while others suggest a more rapid response in treatment for African Americans and Latinos when older antidepressants are used. Varner, Ruiz, and Small (1998) provided evidence suggesting that blacks need lower doses of tricyclic antidepressants (TCAs) and SSRIs than white patients to attain a similar response in the treatment of major depression. Two other studies have described similar results that black patients achieve higher TCA concentrations in the blood and have a faster rate of recovery when treated with either amitriptyline or imipramine (Raskin & Crook, 1975; Ziegler & Briggs, 1977).

A subanalysis of the Sequenced Treatment Alternatives to Relieve Depression (Star*D) Study adjusted for baseline differences in insurance, severity of depression, comorbidities and level of impairment revealed that African Americans had less response to antidepressants. They speculated that continued research is needed to identify the variables (socio-demographic, versus economic, versus biologic versus other) with the most impact on treatment outcomes (Lesser et al., 2005, 2007).

Antipsychotics

The literature is scarce investigating whether or not different racial or ethnic backgrounds affect a patient's response to antipsychotic treatment. Again, the results and conclusions are mixed. Ruiz, Varner, Small, and Johnson (1999) studied the response to neuroleptics for schizophrenia in white, black, and Hispanic patients. Hispanic patients required the lowest dosing for effective treatment. When weight was taken into consideration, the dosing between the white and black patients was no different. However, a South African study compared baseline Positive and Negative Syndrome Scale (PANSS) scores following atypical and conventional antipsychotics in various ethnic groups. Emsley et al. (2002) found that baseline scores were higher for black and mixed heritage patients compared to whites. They also found a greater reduction in scores following treatment among these groups compared to whites. Furthermore, they speculated that delayed treatment may have contributed to high baseline scores for black and mixed heritage individuals.

In any discussion of potential racial disparities of pharmacologic effects of psychotropic drugs, side effects and adverse reactions must also be explored (see Table 3.1). Ormerod, McDowell, Coleman, and Ferner (2008) reported that ethnicity reflects components of both genetic and exogenous variability that are known to influence susceptibility to adverse drug reactions (ADRs). Ethnic differences in side effects may stem from genetic differences in pharmacokinetics or pharmacodynamic factors.

African American patients are more likely to be diagnosed with schizophrenia than white patients, more likely to receive higher doses of treatment, and less likely to receive newer classes of antipsychotics (Lehman et al., 1998; Mukherjee, Shukla, Woodle, Rosen, & Olarte, 1983). African American patients receiving first generation antipsychotics (FGAs) appear to be at greater risk for movement disorders such as tardive dyskinesia (TD; Morgenstern & Glazer, 1993).

While FGAs were found to be effective for treating psychosis, there were multiple untoward effects, such as extrapyramidal symptoms (EPS) and TD (Geddes, Freemantle, Harrison, & Bebbington, 2000). These types of movement effects may impact a patient's adherence to treatment. African American patients are less likely than white patients to receive second-generation atypical antipsychotic medications (SGAs) (49 versus 66 %, respectively). They tend to be prescribed agents that are not the currently recommended first line drugs (Mark, Dirani, Slade, & Russo, 2002; Wang, West, Tanielian, & Pincus, 2000). They receive medications that have greater risks of producing EPS and TD. The same studies reported that younger male African Americans with schizophrenia were less likely to receive SGAs than their white counterparts. However, when controlled for Medicaid enrollees or for socioeconomic status, the study did not reveal a racial disparity in the use of SGAs. This observation is consistent with the conclusion that access to quality care or payer mix may also be predictors of outcome independent of race and ethnicity.

The relationship between ethnicity and susceptibility to ADRs may be influenced also by differences in the way adverse effects are described by patients of different ethnicities. Several studies reported an increased risk of TD in certain ethnic groups, particularly black patients. This observation may be a reflection of choice of medication more than ethnic variability per se.

Lawson, Herman, Loebel, Lazariciu, and Malik (2009) noted that the use of SGAs instead of FGAs in African Americans should result in a lower risk for extrapyramidal side effects. In a study by Binder and Levy (1981), there was no statistically significant difference in the development of EPS

Table 3.1 Potential racial disparities of pharmacologic effects of psychotropic drugs, side effects, and adverse reactions

Adverse effect	Potential ethnic variation	Strength of evidence
Tardive Dyskinesia	Risk greater in blacks versus whites with use of antipsychotics	Difference observed in cross-sectional study (Morgenstern, Glazer, Gibowski, & Holmberg, 1987); No difference in prevalence in cross-sectional or prospective trials (Chakos et al., 1996; Jeste et al., 1995; Morgenstern & Glazer, 1993; Oosthuizen, Emsley, Maritz, Turner, & Keyter, 2003; Van Os et al., 2000)
Hyperglycemia	Complication greater in blacks versus whites with use of atypical antipsychotics	Occurrence in 19 versus 10 %, black versus white, respectively—not significant; (Lindenmayer et al., 2003) Two cross-sectional trials show no difference (Sernyak, Gulanski, Leslie, & Rosenheck, 2003; Sernyak, Gulanski, & Rosenheck, 2005)
Diabetes mellitus	Antipsychotic complication greater in blacks and Hispanics versus whites	Odds ratio over 10-year naturalistic study black versus white 11.5, Hispanics versus white 4.3 (Henderson et al., 2005). Clozapine nonwhite increased risk observed (Barner, Worchel, & Yang, 2004)
Cardiovascular mortality	Antipsychotic complication increased in black/Hispanic versus white	Noted in one study (Henderson et al., 2005)
Metabolic Syndrome	Prevalence white versus nonwhite	None observed in one study of second generation antipsychotics except hypertriglyceridemia was more common in whites (Correll, Frederickson, Kane, & Manu, 2006)
Weight gain	More rapid weight gain nonwhite versus white for some agents but not all	Randomized masked trial olanzapine versus haloperidol; olanzapine versus risperidone (Basson et al., 2001; Zipursky et al., 2005)
Blood disorders	Neutropenia greater risk, black versus white	Risk 77 % greater black versus white for clozapine (Munro et al., 1999)

Based on Ormerod et al. (2008)

in African Americans and Caucasians after two weeks of treatment with haloperidol.

When it comes to TD, the available evidence is conflicting. In a study by Glazer, Morgenstern, and Doucette (1994), non-Caucasians were 1.83 times more likely to develop TD compared to Caucasians; however, this study only included three African American patients and assessed new occurrence of TD in patients treated with schizophrenia. In a study by Sramek et al. (1991), there was no statistically significant difference between African Americans and Caucasians in the prevalence of TD in patients hospitalized for greater than one year.

However, in a meta-analysis designed to review the evidence of potential ethnic differences in adverse reaction susceptibility to antipsychotic and antidepressant medications, the results regarding blacks, East Asians, and South Asians were inconclusive. The only significant result was the relative risk for EPS being higher among East Asian versus non-East Asian patients (1.38, 95 %, CI 1.11–1.72) (Ormerod et al., 2008). They too speculated that there is a need for further research into the genetics of ADRs. Furthermore, they noted the need for transparency in ethnic group nomenclature in order to design clinically relevant multi-ethnic studies.

Bipolar Treatment and Other Considerations

Strickland, Lin, Fu, Anderson, and Zheng (1995) reported that African Americans show a higher red blood cell (RBC) plasma ratio of lithium concentration when compared with Asians and whites. Malik, Lake, Lawson, and Joshi (2010) presumed this higher lithium concentration was due to the tendency of African Americans to retain sodium. They noted that some believe sodium retention offered a selective survival advantage for slaves brought to America over the Middle Passage because hyponatremia was believed to be the major cause of mortality. Strickland et al. (1995) reported more side effects in African American patients with high RBC/plasma ratio even when the lithium levels were in therapeutic range. Whether African Americans require lower doses of lithium or respond at lower lithium plasma levels remains an open question.

Irrespective of the observations noted here with regard to antidepressant or antipsychotic medication ethnic response variability, there are data from a study by Lesser et al. (2010) that suggest access to and quality of psychiatric care in general may be the most relevant determinants of outcome disparities regardless of diagnosis. Ethnicity, younger age, and socioeconomic disadvantage have been identified as risk indicators for poor treatment outcomes and premature discontinuation of treatment (Harman, Edlund, & Fortney, 2004; Virnig et al., 2004; Wagner, Maguen, & Rabkin, 1998).

Research on efficacy and side effects with sizable numbers of ethnic minority participants is still quite limited. There is as much heterogeneity within an ethnic or racial group as there is between groups. This makes research in ethnic minority populations in the USA difficult. The lack of consistent findings emphasizes the importance of including both adult and pediatric racial and ethnic minorities in clinical trials in sufficient numbers to draw inferences regarding race and ethnicity. Failing to do so leaves minorities at potentially increased risk for idiosyncratic side effects, or ineffective or toxic dosing. Until this is done, evidence-based treatment guidelines will not be able to be developed to enhance the psychopharmacologic treatment of African–American youth. This coupled with genetic variability in psychopharmacologic response to psychotropic drugs may play a role in adherence to treatment decisions made by patients, parents, and clinicians.

Psychopharmacology in African American Youth

It is reasonable to presume that the apparent disparities in psychiatric diagnosis, treatment and psychopharmacologic variability between ethnic minority and white children would mirror those reported in adults. The limited availability of information is even more pronounced in pediatric than in adult medicine. Currently, utilization of available mental health services and unmet needs are a primary focus of child and adolescent psychiatric clinical research.

Information detailing differences between white and minority youth regarding pharmacodynamics and pharmacokinetics of antidepressants is limited. As of 2012, there were no published randomized controlled trials investigating ethnic differences in pharmacotherapy of pediatric depression.

The literature has been inconclusive regarding metabolism of pharmacological agents or doses at which antidepressant efficacy or adverse reactions become apparent in the treatment of ethnic minority youth. African American adults have a lower tolerance for some antidepressant medications. It may be reasonable to extrapolate these results to African American youth when dosing decisions are made by clinicians.

Use of antipsychotics in African American youth has been scarcely studied. In one study, Wonodi et al. (2007) found that 9 of 62 African American children (15 %) on antipsychotic medications exhibited TD compared with only 4 % (2 of 52) white children. This study was one of the first reports describing the vulnerability of children to TD following exposure to SGAs only. In 2007, SGAs were thought to be associated with significantly reduced risks of TD in chronically treated adult and pediatric patients. Wonodi et al. suggested that the untoward effects of both FGAs and SGAs might be more prevalent and severe in children than that described in adults. Two studies indicated that co-administration of conventional antipsychotics and stimulants may potentiate a movement disorder in children (Casat & Wilson, 1986; Gualtieri & Patterson, 1986).

Attention Deficit Hyperactivity Disorder

ADHD is the most studied condition in pediatric pharmacogenetics. The finding that African Americans were treated 2/3 as often as whites for ADHD may be secondary to parental beliefs about ADHD, higher rates of risk, lack of treatment access, or non-adherence to prescribed medications. When African American children take stimulants, there may be significant differences in treatment response compared with white children. Some observational studies have described a greater nonresponse to stimulants in African American children. However, these studies had no comparison groups, included a small number of subjects, or the results were not significant (Arnold et al., 2003; Winsberg & Comings, 1999).

There are a few studies evaluating the tolerability of ADHD medication in children. Again, these studies are small but do demonstrate trends towards greater adverse effects from ADHD medications in African American children. For example, Brown and Sexson (1988) found methylphenidate improved attention and impulsivity with a linear dose effect. However, there was a trend towards an increase in side effects with increasing doses, including an increase in mean diastolic blood pressure.

Starr and Kemner (2005) performed a subgroup analysis on the African American participants in the Formal Observation of Concerta versus Strattera (FOCUS) study. They found that both methylphenidate and atomoxetine provided improvement in baseline symptoms, with similar incidences of adverse events in African American children. They concluded that there was no ethnic difference in tolerability of methyphenidate-oros (osmotic release oral system) and atomoxetine; however, this study was of low power.

Pharmacologic Variability

Recent studies are beginning to consider genes, neurotransmitters, and transport systems as explanations for the variability in response to treatment and ADRs. Hypotheses for the variations in ethnic/race response include differences in pharmacokinetics, pharmacodynamics, and non-pharmacological explanations such as cultural and societal variations in the way psychiatry is practiced (Frackiewicz et al., 1997). The pharmacokinetic and pharmacodynamic responses are better explained through pharmacogenomic processes.

Pharmacokinetics is the study of how the body absorbs, distributes, metabolizes, and eliminates medications. Pharmacodynamics focuses on how the medications affect the body, including, but not limited to, therapeutic and adverse effects. Pharmacogenomics explores the relationship of both of these pharmacologic processes and genetic differences that may relate to ethnic differences and efficacy of response.

Pharmacogenomics

Pharmacogenomics can provide insight into the most appropriate medication choice in treatment-resistant individuals and those at increased risk of developing adverse effects. Pharmacogenomics can be divided into two basic categories: (1) metabolic enzymes effecting pharmacokinetic parameters and (2) genes that effect neuronal function or pharmacodynamic parameters. Examples of genes affecting pharmacokinetics include those that code for Cytochrome P450 (CYP450) enzyme systems, while those affecting pharmacodynamics include catecho-O-methyl transferase (COMT) and dopamine receptors 2 and 4 (DRD2, DRD4).

The science of pharmacogenomics relates to a variety of mechanisms of polymorphism. Polymorphisms are naturally occurring genetic variations within a population. These interactions may be complex, such as when various genetic contributions alter the pathology of a disease state to simple effects related to drug availability. Polymorphisms occur by four different mechanisms: (1) pharmacokinetic gene variation influences drug disposition and availability, (2) variation in the effect on target gene mediation of clinical response, (3) genetic influences on a drug's initial mechanism of action resulting in an indirect modification of its response, and (4) genetic alterations that affect disease pathology (Reynolds, 2007).

Variable strength of cytochrome P450 (CYP450) 2D6 drug metabolism is an example of a metabolic polymorphism. For atypical antipsychotics such as clozapine, altered binding at the serotonin (5-HT)2A receptor gene is an example of a drug mechanism polymorphic pathway. Other examples include studies that suggest inter-individual genetic variation within a population related to drug-induced weight gain (Reynolds, 2007).

Pharmacokinetic Variability in Adults

The study of pharmacogenomics is governed by the principle of genetic polymorphisms. The majority of the available clinical evidence centers on adult patients. A small amount of literature reviews the effects of polymorphisms on adult African Americans with an even smaller amount of information available for children. Speculation must be inferred from adult studies until further research addresses these issues in this unique population.

Polymorphisms of drug metabolic mechanisms have received the most attention in pharmacogenetic research because of their clinical relevance and impact a large number of patients who take psychotropic medication.

Table 3.2 CYP450 examples

CYP450 enzyme	Percentage of drugs metabolized	Examples of major substrates
1A2	10 %	Clozapine, haloperidol, olanzapine, thioridazine, trazodone
2C8/9/19	25 %	2C9: amitriptyline, fluoxetine 2C19: amitriptyline, citalopram
2D6	16 %	Aripiprazole, haloperidol, perphenazine, risperidone, and thioridazine, most tricyclic antidepressants
2E1	4 %	Acetaminophen, ethanol
3A4/5	34 %	Quetiapine, risperidone, ziprasidone
Others	11 %	2B6: bupropion

Cytochrome P450 Cytochrome P450 (CYP450) enzymes are a huge focal point of study when determining medication responsiveness versus the toxicities of these agents. Polymorphic CYP450 enzymes are the largest class of drug-metabolizing enzymes (see Table 3.2). The most notable are CYP1A2, 2B6, 2C9, 2C19, 2D6, 3A4, and 3A5 (see Tables 3.2 and 3.3). The majority of variability is related to single nucleotide polymorphisms (SNPs) expressed as variations in CYP450 activity. Each SNP represents a single variation in the DNA sequence. SNPs are normal variations and occur frequently throughout the sequence. Most SNPs have no effect on a person's health or development. However, some SNPs have evolved within specific ethnic populations that may explain therapeutic responses to lower doses or higher risk for adverse effects of medications within certain ethnic groups. Compared to Caucasians, African Americans and Asians exhibit lower CYP1A2 activity. Lower enzymatic activity means that the elimination of the medication is decreased with higher than expected amounts of the medication in the body. This may increase the risks of adverse effects and toxicity. For example, the elimination of clozapine and olanzapine is highly influenced by the activity of CYP1A2 (Murray, 2006). CYP2D6 and 3A4 may also influence elimination of these antipsychotics.

While CYP2C8/9/19 metabolize about 25 % of available medications, they represent 20 % of the liver CYP450 enzymes (McGraw & Waller, 2012). Of the group, CYP2C9 displays the highest level of expression over CYP2C8 and CYP2C19. Within each CYP450 enzyme group, there are also specific alleles that have been isolated and associated with genetic variations. For example, CYP2C9*2 is prevalent in 15 % of Caucasians, variably expressed in those of African descent, and not expressed in Asians. This suggests that individuals of Asian descent are much less likely to metabolize those medications metabolized by CYP2C9*2 effectively. Those of African descent are more heterogeneous in the activity of CYP2C9*2. The known variability in

Table 3.3 CYP450 metabolism activity on antidepressants and antipsychotics

CYP450		Mainly metabolized	Significantly metabolized	Partially metabolized
1A2	Antidepressants	Fluvoxamine	Clomipramine, duloxetine, imipramine	Amitriptyline, mirtazapine, trazodone
	Antipsychotics	Clozapine, olanzapine, thioridazine	Chlorpromazine	Haloperidol, thioridazine
2C9	Antidepressants	None	Amitriptyline, fluoxetine	Sertraline, venlafaxine
2C19	Antidepressants	Amitriptyline, citalopram, clomipramine, escitalopram	Doxepin, imipramine, nortriptyline, sertraline	Venlafaxine, trazodone
	Antipsychotics	None	Clozapine	Thioridazine
2D6	Antidepressants	Amitriptyline, desipramine, doxepin, fluoxetine, nortriptyline, paroxetine, venlafaxine	Bupropion, duloxetine, imipramine, trazodone	Citalopram, escitalopram, fluvoxamine
	Antipsychotics	Chlorpromazine, haloperidol, perphenazine, risperidone, thioridazine	Aripiprazole, olanzapine	Clozapine, quetiapine, ziprasidone
3A4	Antidepressants	Mirtazapine, trazodone, vilazodone	Citalopram	Sertraline, venlafaxine
	Antipsychotics	Haloperidol, quetiapine, ziprasidone	Olanzapine	Clozapine, risperidone

African descent is as follows: 1–3.6 % in African Americans, 4.3 % in Ethiopians, and 0 % in Beninese. On the other hand, CYP2C19 does not appear to be associated with racial or ethnic differences (Suarez-Kurtz et al., 2012).

CYP2D6 is responsible for the metabolism of over 100 medications including antipsychotics, selective serotonin reuptake inhibitors (SSRIs), and TCAs. CYP2D6 is highly polymorphic with greater than 70 variant alleles and more than 200-fold variability in metabolism. As noted by Xie, Kim, Wood, and Stein (2001), the poor metabolizer (PM) phenotype prevalence is as follows: 0.7–19 % in Africans, 5–10 % in Caucasians, and ~1 % in Asians. Additional studies have reported that the prevalence of PMs in African Americans ranges from 1.9 to 7.7 % (Marinac, Foxworth, & Willsie, 1995; Reling et al., 1991). Poor metabolizers are at risk of increased adverse effects with typically prescribed doses, while extensive metabolizers may require higher doses to achieve a therapeutic response. While most TCAs are substrates of CYP2D6, fluvoxamine, fluoxetine, and paroxetine are strong inhibitors of its activity. This is a concern when these TCA and SSRI medications are used in combination. The use of dose adjustments is relevant when a medication has a narrow therapeutic index, which is the range of serum level in which there are no effects versus therapeutic or toxic effects. A TCA is an example of such a medication (Horstmann & Binder, 2009).

As with antipsychotics, identification of PMs may prevent overdosing and increased risk of ADRs with TCAs and monoamine oxidase inhibitors (MAOIs) as well as potentially cardiotoxic effects of venlafaxine (Chen, Wang, Sun, & Young, 2003; Lessard et al., 1999). However, since SSRIs have a broad therapeutic window, there appears to be no clear dose-response relationship for depressive symptoms, toxic concentrations, or adverse effects (Horstmann & Binder, 2009). Therefore, identification of PMs is less relevant for other newer antidepressants such as the SSRIs. Understanding how an individual metabolizes a drug may also help determine the effect potential drug interactions could have on the individual.

According to Malik et al. (2010), those with certain CYP2D6 alleles are more likely to have extrapyramidal side effects while on antipsychotics. This can lead to discontinuation of treatment. More than 70 % of whites, but only about 50 % of African Americans (as well as Asian or Sub-Saharan Africans) have functional CYP2D6 alleles that code for normal metabolic activity. This means that there is a high likelihood of decreased or non-functioning alleles in these populations. This will present as an increased risk of side effects "requiring lower doses for a therapeutic response to many medications when compared with European whites" (Malik et al., 2010, p. 796), including antipsychotics and antidepressants.

CYP3A4 is the most profuse P450 enzyme, representing greater than 50 % of liver metabolism, while CYP3A5 only represents 2 % of the total CYP3A grouping (Westlind-Johnson et al., 2006). The CYP3A family is highly variable across racial and ethnic groups, ranging from 40- to 50-fold (Ingelman-Sundberg, 2004). Many medications are metabolized by the CYP3A family as well as other CYP450 enzymes, which lead to difficulty attributing the variation to only the CYP3A family. In this family, the most common allele variant is CYP3A5*3. The prevalence in African Americans is 32 %, Caucasians is 90–93 %, East Asians is 73 %, Hispanics is 65 %, and South Asians is 60 % (Liu, Hao, Liu, Wang, & Xie, 2007; Xie, Wood, Kim, Stein, & Wilkinson, 2004). CYP3A4*1B may be a reason why the variability of CYP3A4 is very high between ethnic groups. The prevalence in Caucasians is 2–9 %, Hispanic Americans is 9–11 %, and African Americans is 35–67 %; however, the clinical impact of this variation has not been determined (Miura, Obua, Abbo, Kaneko, & Tateishi, 2009).

In a study by Bigos et al. (2011), the CYP3A4*3 genotypes were compared between Caucasians and African Americans. When comparing genotype carriers, Caucasians had the highest frequency of GG carriers (95 %), while African Americans were more commonly AA carriers (89%). AA carriers appear to have a 37 % higher clearance than GG carriers that correlates to a 48 % lower trough plasma concentration. These individuals were more likely to discontinue use of medication because of an inadequate response. CYP3A4*20 SNP is also highly variable among ethnic groups: 6 % in Caucasians, 26 % in African Americans, and 22 % in Asians. This variant appears to have no discernable activity (Wang, Guo, Wrighton, Cooke, & Sadee, 2011).

P-glycoprotein P-glycoprotein belongs to a highly conserved superfamily of ATP-binding cassette (ABC) transporter proteins. It plays a significant role in drug absorption and disposition. Genetic polymorphisms could affect p-glycoprotein's ability to influence intracerebral antidepressant substrate concentrations but not non-substrates.

A drug substrate is one that is metabolized by an enzyme system. For example, an inhibitor decreases the activity of the enzyme and possibly the metabolism of the substrate. In vitro experiments demonstrate that p-glycoprotein appears to regulate citalopram, sertraline, paroxetine, trimipramine, amitriptyline, nortriptyline, doxepin, and venlafaxine in the central nervous system (Horstmann & Binder, 2009). Two SNPs have been implicated in influencing the activity of P-glycoprotein resulting in differences in drug plasma concentrations of substrates (Hoffmeyer et al., 2000).

Genetic Associations

There is a large amount of evidence available for the dopamine receptor gene D2 (DRD2), dopamine receptor gene D3 (DRD3), and serotonin (5-HT)2A receptor and how their genetic polymorphisms relate to clinical response to treatment (Malhotra et al., 2004; Reynolds, Arranz, Templeman, Fertuzinhos, & San, 2006). D2 is the major site for antipsychotic action and 5-HT2A is the primary target suggested to differentiate second-generation antipsychotics (SGA) from FGA. Because these three genes explain only a small percentage of genetic variation, there are likely numerous other factors to consider when determining antipsychotic response.

In terms of clinical response, DRD2 and, to a lesser extent, DRD3 appear to influence positive symptoms, while the 5-HT2A receptor appears to be more associated with negative symptoms. The val/met COMT polymorphism may be associated with effects on negative and cognitive symptoms by modulating frontal cortical dopamine activity and the glutamate metabotropic receptor-3 gene (Bishop, Ellingrod, Moline & Miller et al., 2005; Diaz-Asper, Weinberg, & Goldberg, 2006; Weickert et al., 2004). The promoter SNP, -1019C/G, on the 5-HT1A receptor gene appears to have a strong genetic association for negative and depressive symptoms and the response of risperidone and olanzapine; however, there was no association with positive symptoms of schizophrenia (Reynolds, Arranz et al., 2006; Reynolds, Templeman, & Godlewska, 2006).

The largest amount of data centers on the serotonin receptor SLC6A4, which is implicated in the effect of SSRIs, selective serotonin norepinephrine reuptake inhibitors (SNRIs), and TCAs. Although the clinical effects of SNRIs and TCAs may be associated with the SLC6A4 gene, SSRIs appear to be the group that experiences the highest rate of influence. The STAR*D study referenced earlier has provided the most abundant amount of data between the SLC6A4 association and SSRIs, specifically citalopram. The majority of this information focuses on the promoter region of SL6A4, also known as 5-HTTLPR. In the STAR*D sample, the response ranged from no effect on treatment remission in the homozygous sample to improved response in the white non-Hispanic group (Lesser et al., 2007; Mrazek et al., 2009). There may be an ethnic variability here as well, but the mechanism to explain these types of responses has yet to be determined.

Pharmacogenomic Basis for Adverse Effects

The effects of pharmacogenomics may be more significant for medication naïve patients compared to those on already established doses; therefore, limited evidence is available. The most noteworthy effects are for those individuals identified as poor metabolizers of a medication (Plesničar, Zalar, Breskvar, & Dolzzan, 2006). A link between the increased risk of TD and DRD3 and 5-HT2C receptor has been studied (Segman et al., 2000). The 5-HT2C receptor has the most well-established evidence to support the association with weight gain. The largest proportion of variation appears to be in medication naïve individuals (Templeman, Reynolds, Arranz, & San, 2005). One proposed mechanism for this effect is that antipsychotics interfere with the inhibitory effect of leptin, an anorexic hormone, on food intake. This could result from the antagonism of the 5-HT2C receptor in the hypothalamus (Templeman et al., 2005). Numerous studies have identified a genetic variation in human leukocyte antigens (HLAs) related to the increased risk of agranulocytosis with clozapine (Amar et al., 1998; Dettling, Cascorbi, Opgen-Rhein, & Schaub, 2007).

Pediatric Data

The pediatric data focus on stimulants, antipsychotics, and antidepressants because they are the most prescribed medications in child and adolescent psychiatry. As with adults, medications are chosen empirically based on the patient's symptom presentation, disease state process, potential adverse effects, cost, and patient and family experiences. As with any disease state, a portion of patients is treatment resistant. Although three-quarters of individuals respond to stimulant medication used in the treatment of ADHD, 25 % are considered treatment non-responders.

ADHD There is a large of amount of variability between treatment response, dosage, and tolerability in those children treated for ADHD. This variability appears to be related in the expression of the dopamine transporter gene (DAT1 or SLC6A3), the dopamine receptor genes (DRD2, DRD4), and to a lesser extent the alpha^2-adrenergic receptor (ADRA2A) and the norepinephrine transporter (SLC6A2). In ADHD, SLC6A3 is most often the target of pharmacogenomics studies focusing on ADHD and methylphenidate treatment.

Current research suggests the 10-repeat allele polymorphism at the DAT1 gene is associated with reduced methylphenidate efficacy (Froehlich et al., 2011). In a study by Kirley et al. (2003) evaluating the effects of methylphenidate on neurocognitive function in stimulant-naïve subjects, the 10-repeat homozygous subjects exhibited better planning ability and better response inhibition compared to the 9-repeat carriers. Currently, there is no clear association of clinical response based on the dopamine transporter gene.

The next most commonly studied gene region is the DRD4. There are also inconclusive results regarding the effects of DRD4 on clinical response; however, the 7-repeat allele may be less responsive to dopamine than the 2-repeat and 4-repeat alleles (Asghari et al., 1995). Individuals without the 4-repeat allele and 4-repeat carriers appear to respond to methylphenidate better than those treated with placebo on hyperactive/impulsive scores (23 versus 40–49 %). The ADRA2A receptor, the main receptor in the noradrenergic system, appears to have a positive association with methylphenidate (MPH) and its clinical response, particularly the G allele. Over time, the G allele variant seems to be associated with a larger decrease of inattentive symptoms; however, in terms of MPH response, this variant was associated with higher levels of hyperactive/impulsive symptoms on placebo and as MPH doses increased (Froehlich et al., 2011). Yang, Wang, Li, and Faraone (2004) compared the G allele and T allele carriers. The results indicated the G allele induced a better MPH response, while the T allele carriers demonstrated improved impulsive behaviors. It has been suggested that T allele carriers may have lower norepinephrine transporter (NET) levels in the brain. These lower levels may explain the better MPH response because of having to block fewer NET to achieve response. While the literature for ADHD pharmacogenomics continues to grow, difficulty remains with extrapolating the effects of each gene on clinical response.

Autism Spectrum Disorders Most pharmacogenomic pediatric data associated with antipsychotics has been researched in the context of autism spectrum disorders. Correia et al. (2010) studied associations between the 5-HT2A, DRD3, 5HT2C, and the ATP-binding cassette, subfamily B (ABCB1) polymorphisms and risperidone used in the treatment of autism. The results indicated that these polymorphisms were predictors of improved clinical response with risperidone. In addition, the study determined that the 5HT2C and 2D6 polymorphisms may be associated with increased BMI and waist circumference, while 5HT2A, 5HT2C, HTR and brain derived neurotrophic factor (BDNF) may influence prolactin elevations. Decreased BMI and waist circumference were observed in the CYP2D6 ultrarapid metabolizer phenotype compared to the extensive metabolizer phenotype. The sample studied was 97.8 % ($n=44$) Caucasian and 2.2 % ($n=1$) African American. Evidence is still evolving as to the implications of pharmacogenomics and the effects on the pediatric population of antipsychotics.

To date, there have been limited pharmacogenomic studies in children and adolescents on antidepressants. In the pediatric population, the data are so negligible that a clear correlation between clinical response and the SLC6A4 or 5-HTTLPR cannot be identified.

Overall, several conclusions can be drawn about polymorphisms. First, polymorphisms are only relevant when the result is large differences between poor and extensive metabolizer phenotypes. Second, pharmacokinetic differences are important when medications have a narrow therapeutic index. Third, if medications are adjusted based on clinical response, phenotypic differences will be corrected automatically. Finally, medications that are prescribed to a larger portion of the population are at risk for greater implications (Burroughs, Maxey, & Levy, 2002).

Pharmacogenomic Testing

Pharmacogenomic testing is a new endeavor that is being explored. The goal of commercial testing is to help provide an understanding of the relationship between drug plasma concentration and efficacy. However, it is difficult to routinely recommend pharmacogenomic testing as the evidence for its use is still evolving. The role of pharmacogenomics in helping to determine treatment planning appears to emerge after the failure of, at minimum, two medication trials or if clear evidence of an unusually higher rate of adverse effects occurs at recommended doses.

Adherence

The pharmacogenomic correlation between ethnicity, race, and pharmacodynamic response to psychotropic drugs remains elusive. Currently, the potential clinical application of genetic research to psychiatric diagnoses is difficult even if applied to a theoretical homogenous reference population. Inherent cultural biases in the mental health system can interfere with the evaluation and management of patients (Chap. 7). This may impact the accuracy of diagnoses, appropriateness of treatment, adherence to the agreed upon treatment plan and reinforce apparent ethnic or racial differences in response to care.

The decision to take prescribed medication is multifactorial. The practice of pharmacotherapy includes the therapeutic relationship, which is fundamental for its efficacy. This relationship is inherently more complex in work with youth because of the presence of the parent/guardian, an additional, but necessary factor (Pruett & Martin, 2003). An understanding of therapeutic adherence literature is helpful in this process. We will review the major psychosocial factors that contribute to medication adherence. As in the rest of this chapter, we continue to extrapolate from the general literature as well as the African American and pediatrics literature on chronic illness. In addition we will draw from the literature on adherence in general/adult psychiatry.

Mental Health Literacy

Mental health literacy, which contributes to adherence, is the “knowledge and beliefs about mental disorders which aid their recognition, management or prevention” (Jorm, 2000, p. 396). This includes the ability to recognize psychological distress or disorders, understand risk factors, causes and available treatments, having attitudes that foster help seeking and knowing how to obtain information about mental health. In their review, Stewart et al. (2012) noted that health literacy might be lower in children and adolescents from diverse groups (Chandra et al., 2009). As such, they concluded that if the practitioner does not educate or ask about side effects, the risk of non-adherence might increase.

General Adherence

Adherence is a vital factor to consider in the use of medications. From one-third to 69 % of all medication related hospital admissions per year are due to poor adherence (Osterberg & Blaschke, 2005). Adherence to treatment for chronic disease is about 50 % in developed countries and is lower in developing areas (Sabaté, 2003). The World Health Organization (WHO) defined adherence as “the extent to which a person’s behaviour – taking medication, following a diet, and/or executing lifestyle changes, corresponds with agreed recommendations from a health care provider” (Sabaté, 2003, p. 3). This is in contrast to compliance, which does not require a patient’s agreement with the recommendations and minimizes autonomy.

The WHO conducted an adherence project, assessing the worldwide problem of adherence with treatments for diseases such as asthma, depression, diabetes, HIV/AIDS, hypertension, and cancer (palliative care). They found that patients require support in taking medication, instead of blame for not doing so. They also identified social, economic, and patient related factors, as well as characteristics of the health care team and health care system itself, that impact adherence. The patient’s readiness for medication is a significant factor, and health care providers must be able to assess, guide, and follow this level of readiness. Peer support by other patients impacts adherence as well.

A multidisciplinary approach to adherence is recommended and members of the team (including psychiatry, pharmacy, nursing, psychology, social work, and others) should be trained about how to enhance adherence. Education about the medication, using the lowest possible frequency of dosing, and tailoring prescriptions to the patient's needs are helpful to increase adherence. Managing comorbidities and personality traits with counseling and psychotherapy are also key to adherence. Furthermore, unless adherence is specifically discussed, 30–40 % of patients will stop their medications after about 12 weeks, regardless of whether they perceive benefits from the medication (Sabaté, 2003).

In order to manage poor adherence, it must first be clearly assessed by simply asking the patient and caregiver about any problems with taking the medication, or anticipating any such problems. This should occur even if the patient appears to be adherent. Counting pills, using pharmacy records, smart pill containers, and medication levels are recommended to help increase adherence (Velligan et al., 2010a).

Adherence in Children

Smith and Schuchman (2006) noted that managing non-adherence is as important as any other aspect of treatment of chronic illness, adding the developmental aspect that adherent children are at risk for non-adherence as adolescents. The term adherence encompasses "medication taking, complying with dietary rules or other lifestyle modifications, blood work, and clinic appointments" (p. 614). When adolescents are asymptomatic for long periods, they are less likely to remain adherent. Routine assessment of adherence and specifically targeting non-adherence when it is present is recommended (Smith & Schuchman, 2006). Children benefit from oral dosage forms of medications that are easier to swallow, better tasting, or smaller pills (Zajicek et al., 2013).

The Health Belief Model

The Health Belief Model (HBM) requires an understanding of the patient's assessment of the seriousness of his disorder. We know that parental beliefs/knowledge about ADHD impact their decision to seek treatment for their children (Bussing, Schoenberg, & Perwien, 1998). For example, the perception of ADHD in Caucasian parents is more likely to be "this requires professional assistance," but in African American families it is more likely to be "I don't want my child labeled –I don't want him to stand out" (Charach, Volpe, Boydell, & Gearing, 2008).

An accurate understanding of a disorder may contribute to one's appreciation of the benefits of intervention, decisions to seek treatment, and adherence to agreed upon plans of care. This is noted in the HBM (Jones, Smith, & Llewellyn, 2014). The Beliefs about Medicine questionnaire (Horne, Weinman, & Hankins, 1999) assesses a patient's beliefs about medications that may contribute to non-adherence, citing social cognition models including HBM and others (Horne et al., 1999). This may be a helpful addition to the clinician's toolkit in managing adherence.

Chronic Medical Conditions in Children

There is a robust literature on the management of chronic illnesses such as asthma, diabetes, and HIV in adolescents (Bean et al., 2014; Belzer et al., 2014; Bruzzese, Idalski Carcone, Lam, Ellis, & Naar-King, 2014; Mosnaim et al., 2014; Ogedegbe et al., 2008; Saberi, Yuan, John, Sheon, & Johnson, 2013). As many psychiatric disorders, such as ADHD, depression, and bipolar disorder may require chronic use of medication as well as psychotherapy, this literature may be useful to consider in improving adherence with youth and their families in managing mental illness.

In a meta-analysis of adherence in medications prescribed by nonpsychiatric physicians, DiMatteo (2004) found that adolescents were less adherent than children, girls were more adherent than boys and that adherence is positively correlated with education and income. Overall, they found that non-adherence occurs in 24.8 % of patients. Of note, there was no gender difference observed in adults on adherence.

In adolescents, chronic illnesses such as asthma, epilepsy, and diabetes have poor medication adherence as clearly illustrated in a study of adherence to Continuous Positive Airway Pressure (CPAP) treatment for obstructive sleep apnea (Prashad et al., 2013). Adolescent rebellion against authority may factor into non-adherence with medication use. Factors that had a significant role in increasing adherence were consistent levels of structure in the home, recognition of the benefits of using CPAP (and the risks of not using it), as well as the mode of communication in the family. Adolescents with high adherence had more authoritative parents and accepted their explanatory and helpful reminders to use their CPAP. Those with low/no adherence had more authoritarian parents and felt that their parents yelling about CPAP indicated they did not understand how difficult it was to use (Prashad et al., 2013).

Bruzzese et al. (2014) studied African–American adolescents with asthma in relation to adherence in relation to the usefulness of the self-determination theory. This theory postulates that an individual is most likely to adhere when needs for autonomy, competence, and relatedness are met. Incorporating asthma medication administration into the family routine resulted in improved adherence to the agreed-upon treatment. Education regarding inhaled corticosteroids was helpful in increasing adherence in both African American and Latino adolescents with asthma. Increased patient age was not associated with adherence improvement (Mosnaim et al., 2014).

Simply forgetting was a major reason for non-adherence with antiretroviral treatment in a study of HIV positive adolescents and young adults described as very stressed and marginalized. Cell phone social support and telehealth interventions have been effective in increasing adherence in this population (Belzer et al., 2014; Saberi et al., 2013).

Adult Adherence in Psychiatric Illness

General risk factors for non-adherence in mental illness include co-morbid substance dependence, poor insight, denial of the illness, and a poor attitude toward the medication, including feeling that the medication cannot help (Julius, Novitsky, & Dubin, 2009). Experiencing side effects and a lack of family support to take the medication are also contributing factors to non-adherence (Julius et al., 2009). When there is a racial difference between the therapist and patient, Larrison, Schoppelrey, Hack-Ritzo, and Korr (2011) found that the only factor that made a difference in adherence was the amount of positive experiences the clinician had previously with individuals racially/ethnically different from themselves. This should be generalizable to medication management situations as well.

A consensus survey of experts working with patients with schizophrenia and bipolar disorder listed numerous strategies to enhance adherence in the severely persistent mentally ill population (SPMI) (Velligan et al., 2010b). They noted that cognitive behavioral therapy (CBT) techniques are useful to help the patient's understanding of the treatment. Compliance therapy (CT) is a CBT technique that melds psychoeducation and motivational interviewing (MI) techniques. CT focuses on the relationship between non-adherence and relapse. However, the results are mixed. Family-Focused Therapy has also been found to increase adherence (Picardi & Gaetano, 2014).

Interpersonal and social rhythm therapy (IPSRT; Frank, Swartz, & Boland, 2007; Velligan et al., 2010b) improves adherence and prevents relapse. It has also been adapted for use with adolescents with bipolar disorder (Frank et al., 2007; Hlastala, Kotler, McClellan, & McCauley, 2010). This therapy focuses on stabilizing daily routines and resolving interpersonal problems incorporating MI and CBT skills. The increased frequency of visits including psychoeducation for the patient and family in this therapeutic approach are additional strategies to improve adherence (Velligan et al., 2010b). Managing side effects, addressing specific reasons for non-adherence, and ensuring the use of appropriate psychopharmacology are key to improved adherence in IPSRT. Family-Focused Therapy involves 21 sessions over a 9-month period and includes psychoeducation, including discerning the difference between development and the mental illness, assessment of health beliefs, communication skills, and problem solving (Miklowitz, 2006; Picardi & Gaetano, 2014).

Involuntary outpatient commitment and environmental monitoring of medication use with tools such as checklists, signs, electronic reminder devices, and other forms of information technology are helpful. Additional strategies such as psychoeducation, Assertive Community Treatment (ACT) teams, and case managers are additional strategies useful in improving adherence. In psychoeducation, the family and patient are taught more about the illness as well as the medication. ACT teams involve the use of clinical support teams that come to the patient to improve compliance.

Adherence in African Americans

Stigma It has been noted that African Americans and Latinos are less likely than White Americans to utilize mental health care (Cook, McGuire, & Miranda, 2007). This is true even when the care is covered by insurance (Thomas & Snowden, 2001). Carpenter-Song et al. (2010) interviewed 25 adult inner-city residents with severe mental illness about their attitudes regarding their illness and treatment. The African American patients were found to have stigma as a prominent theme, and considered severe mental illness to be "private family business." Perceptions of their illness were not as "biomedical" as those of the White American participants. African Americans did not have the same level of wariness of the diagnostic label as the Latino participants in the study. African American families are more likely to seek assistance from spiritual leaders rather than health care specialists for psychiatric issues. This number may be even higher in rural communities with limited access to mental health providers. There is a significant amount of poverty in this population contributing to concerns about cost. One-third of rural African Americans felt that white professionals could not understand the problems of African American families. The recommendation was made to educate clergy about mental health needs and help clergy and mental health professionals work together.

Stigma surrounding the diagnosis and treatment of mental illness may delay the treatment of first-episode psychosis (Franz et al., 2010). Schizophrenia is very highly stigmatized (Anglin, Link, & Phelan, 2006) and this causes delays in seeking help, poor engagement in treatment, and under-treatment of affected individuals (Broussard, Radkins, & Compton, 2014).

Factors Decreasing Adherence

Adherence in a community mental health setting has been found to be lower in African American patients compared to Whites (Diaz, Woods, & Rosenheck, 2005). Over 50 % of minority patients terminate counseling after their first contact with a therapist, but only 30 % for whites (Sue & Sue, 1999). African American patients begin an assessment of the therapist with the first session. They judge whether there is a client–therapist match, assessing the degree of safety with the therapist, and the effectiveness of the encounter. If this assessment is negative, it was likely that future interactions would be more superficial, or the client would terminate the relationship (Ward, 2005).

African Americans are most likely to express concern about fear of racial discrimination, stigma/labels, impact on employment, and privacy when considering participation in psychiatric genetic studies (Nwulia et al., 2011). In the infamous Tuskegee Study, the progression of untreated syphilis in African American men over decades, despite the existence of treatment and patients enrolled absent informed consent, is often cited as a major source of distrust of African Americans in medical research. Other potential reasons why African Americans may refuse study participation include a general distrust of government, fear of mistreatment, and exploitation (Yancey, Ortega, & Kumanyika, 2006).

Ayalon, Areán, and Alvidrez (2005) studied elderly Black and Latino patients taking antidepressants prescribed by their primary care provider. This study revealed that intentional non-adherence was related to concerns about side effects, stigma associated with the medication, and the perception that the antidepressants were less important than their other medications.

Unintentional non-adherence was associated with cognitive impairment. In a homeless adult population, African American patients were less likely to adhere to behavioral therapy or psychiatric appointments (Moczygemba, Osborn, & Lapane, 2014). In working with African American adults with anxiety disorders, it has been noted that African Americans have less favorable attitudes towards both psychotherapy and pharmacotherapy—assessing patient attitudes and beliefs is important to maximize the benefit of recommended treatment (Wagner et al., 2005).

Factors Improving Adherence

Motivational interviewing (MI) has been found to be useful in increasing adherence in managing hypertension and obesity (Bean et al., 2014; Ogedegbe et al., 2008) in African American adults. MI is a patient-centered means of enhancing motivation for change through identifying and resolving ambivalence towards treatment with the patient. An individual may progress from an early stage of indicating a lack of readiness for change to one of joyous excitement that the change is proceeding well.

The pros and cons of making a change are reviewed with the patient at the initiation of the process. The clinician moves along at the patient's pace. If the clinician begins to recognize resistance by the patient, this may indicate that the process is moving too fast. The patient's level of motivation must be reassessed and the pace adjusted accordingly. In MI, adherence is conceptualized as a coping behavior—the patient understands the illness and beliefs regarding the medication. There is an inherent connection between adherence and a decrease in symptoms and improvement in personal health. The clinician asks open-ended questions, engages in active listening, and reflects on the patient's thoughts and summarizes to help the process and progress to continued change (Julius, 2009).

Cruz et al. (2013) found that for outpatient medication check appointments psychiatrists whose voices conveyed friendliness, warmth and empathy had better adherence with appointments for both African American and White patients with depression. In a review of the literature on adherence for African American and Latino populations, no one intervention was found to be universally successful. However, MI was particularly useful for some African American patients in studies of interventions with HIV infection, hypertension, and asthma.

Attention Deficit Hyperactivity Disorder

ADHD is a chronic illness; as such, adherence is not uncommon. African American adolescents and their families are more likely than Whites to have misperceptions regarding etiology and medication overuse in regards to ADHD. Such misperceptions could impact beliefs about the disorder and adherence with recommended treatment. Culturally appropriate psychoeducation strategies for this population are recommended (Bussing et al., 2012).

In their review of studies of adherence among patients with ADHD, Gajria et al. (2014) found that the continuous use of prescribed stimulants was poor, and averaged 136 days for children or adolescents, and 230 days for adults. They identified side effects, poor symptom control, inconvenient dosing, and the social stigma of taking medication as the primary reasons for discontinuation. Patient attitude and patient physician-communication were also significant factors that decreased adherence. They also noted that half of all patients were non-adherent within 2–3 years of starting medication. Physician assessment of African American youth had lower rates of adherence compared to Western European youth. Children and adolescents were more likely to adhere to non-stimulant than to stimulant medications. Specific factors contributing to non-adherence with non-stimulants were not discussed.

Gajria et al. (2014) found that in North America, the most common reasons for stopping medications were untoward effects, poor symptom control, inconvenient dosing, stigma related to taking medication, and the patient's attitude about the medication. They recommended psychoeducation for caregivers and parents use of longer-acting preparations and specifically checking with patients to ensure that the medication is still effective. This review did not provide more specific information about African American youth, however. They noted a need for further research on adherence with the use of non-stimulant medications.

Hervey-Jumper, Douyon, and Franco (2006) noted that ADHD is often undiagnosed and therefore untreated in African Americans. This results in “higher rates of delinquency, incarceration, teen pregnancy and sexually transmitted diseases associated with inadequate or delayed treatment of ADHD” (p. 233). There is a higher risk of learning difficulties and earlier onset of substance use disorders. While teachers may identify symptoms consistent with ADHD, parents may have difficulty accepting this as a possible diagnosis with the accompanying recommendations for pharmacological intervention. If a parent believes that diet is the etiology, this is the path the parent will take instead. Many African American parents tend to have less knowledge about ADHD than Caucasian parents (Bussing et al., 1998, 2012). Parents may worry about stigma and the “label” of ADHD, telling children “we don’t air our dirty laundry,” or “we don’t put our business in the street” (Murry, Heflinger, Suiter, & Brody, 2011). Taking medications may be seen as a sign of weakness, or the first step in becoming addicted to pills. There is also a concern that the child will have to take medication for the rest of his or her life.

Conclusions

Research on efficacy and side effects with sizable numbers of ethnic minority participants is still quite limited. There is as much heterogeneity within an ethnic or racial group as there is between groups. This makes research in the minority populations difficult. The lack of consistent findings emphasizes the importance of including both adult and pediatric racial and ethnic minorities in clinical trials in sufficient numbers to draw inferences regarding race and ethnicity. Failing to do so leaves minorities at potentially increased risk for idiosyncratic side effects as well as ineffective or toxic dosing. Until this is done, evidence-based treatment guidelines will not be able to be developed to enhance the psychopharmacologic treatment of African American youth. This, coupled with genetic variability in psychopharmacologic response to psychotropic drugs may play a role in adherence to treatment decisions made by patients, parents, and clinicians.

In terms of the pediatric African American population, extrapolation of the available information may lead to variable conclusions on pharmacokinetic and pharmacodynamics processes. Although the pharmacodynamics data are the most robust for ADHD and ASDs, there is no information on the effect of different ethnicities in pediatrics on these processes. This lack of data makes it difficult to fully understand the impact of pharmacogenomics on the pediatric African American population. As pharmacogenomics is a continually developing science, the ability to extrapolate information between ethnicities and age-specific populations will continue to evolve. Future research will need to focus on the evolution of pharmacogenomics in the child and adolescent mental health population. For now the role of ethnicity will continue to be extrapolated from adult data.

The overall recommendations for adherence are not culture specific. Stigma must be recognized and addressed, the therapeutic relationship must be fostered, and medication adherence must be specifically mentioned and reviewed with the patient in every session. Stigma and poor mental health literacy are correlated and must be explored to decrease disparities in the use of mental health services.

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Cognitive Behavioral Therapies

4

Monnica T. Williams, L. Kevin Chapman,
Erica V. Buckner, and Elishia L. Durrett

Introduction

The emergence of cognitive behavioral therapies (CBT) since the early 1960s sparked a period, termed the "cognitive revolution" (Dobson & Dozois, 2010), a shift in approach that aimed to restructure one's thoughts while simultaneously perpetuating desirable behavior. The foundation of CBT is embedded in the notion that one may elicit cognitive activity mediating behavioral and affective change. The CBT model conceptualizes situations, thoughts, feelings, and behavior as being connected. It interrupts the cycle of automatic thoughts (evoked by a stimulus), replacing them with alternative thinking strategies that bring about behavior change. Consequently, the emphasis on cognitive mechanisms to create a change in behavior is what differentiates this from behavior therapy. As such, CBT refers to the class of interventions based on the basic premise that emotional disorders are maintained by cognitive factors, and that psychological treatment leads to changes in these factors through cognitive restructuring and behavioral techniques (e.g., exposure, behavioral experiments, relaxation training, social skills training) (Hoffman & Smits, 2008).

Beck (1976) posited that negative thoughts often represent a distorted perception of reality. Therefore, treatment aims to reduce the emotional impact of unpleasant cognitions by replacing them with more accurate and adaptive ones. As such, there are three fundamental propositions in CBT, (1) cognitive activity affects behavior, (2) cognitive activity may be monitored and altered, and (3) desired behavior change may be effected through cognitive change (Dobson & Dozois, 2010).

Distressing thoughts and emotions are common among psychiatric disorders characterized by negative affect, including depression, anxiety disorders, eating disorders, and psychosis (Yoval, Mor, & Shakarov, 2014). Specifically, CBT has been applied to an array of presenting concerns experienced by children and adolescents, including hyperactivity, aggression, and disruptive behaviors. A few CBT measurements of success include: academic outcomes, increases in social reasoning abilities, improved peer relationships, and maintenance of these changes. For children and adolescents, CBT focuses on schema development and the cognitive processes of automatic thoughts (Christner, Stewart, & Freeman, 2007). In this context, schemas are operationally defined as the way individuals view themselves, others, the world, events, and interactions. It is further posited that in younger children, their schemas are still developing (Wilson & Cottone, 2013).

M.T. Williams (✉) • L.K. Chapman • E.V. Buckner
E.L. Durrett
Department of Psychological and Brain Sciences,
Center for Mental Health Disparities, University of
Louisville, Louisville, KY 40292, USA
e-mail: m.williams@louisville.edu

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Negative external factors, such as an invalidating home environment, physical/verbal abuse, and exposure to violence, have been shown to have a negative impact on a child's perception of self, others, and the world (Shedler, 2010). Furthermore, ethnoracial factors, such as discrimination, colorism, racism, and ethnoviolence, most commonly experienced by African Americans, are factors that impact cognitions as early as age 3 (Clark & Clark, 1939; Jordan & Hernandez-Reif, 2009). With this information, a social-cultural division is delineated between the minority and majority experience, which may be a critical factor to consider in CBT effectiveness with African American youth.

The Research Gap

Empirically, CBT has been supported by numerous randomized controlled trials (RCTs) and individual case studies. CBT is demonstrated as the most efficacious treatment when compared to other treatment modalities such as, interpersonal therapy, acceptance and commitment therapy, treatment as usual, and a no treatment group at all (Segal, Vincent, & Levitt, 2002). An aggregate of CBT clinical outcome research findings have demonstrated robust treatment effectiveness for many disorders. Hoffman and Smits (2008) reviewed 1165 studies and identified 27 randomized placebo-controlled trials to estimate the efficacy of CBT compared to psychological or pharmacological placebo conditions for anxiety disorders, and to examine whether the number of treatment sessions and the placebo modality moderate treatment outcome. Findings pertaining to CBT efficacy have revealed medium to large effect sizes in reduction of anxiety disorder severity, and have demonstrated significantly greater benefits than placebo treatments (Hoffman & Smits, 2008). However, despite some recent improvements, research on the application of CBT with diverse populations continues to be scarce.

The majority of the studies examining the effectiveness of CBT were conducted predominantly with a non-Hispanic White middle-class population. It has been noted that there has been a lack of ethnic minority participants in psychological research (Wilson & Cottone, 2013), particularly in studies of anxiety disorders (Mendoza, Williams, Chapman, & Powers, 2012; Williams, Powers, Yun, & Foa, 2010). It is important to note that despite the underrepresentation of ethnic minorities in psychological research, there is an overrepresentation of research highlighting African American youth and disruptive disorders (Bird et al., 2001). This directly conflicts with the results from epidemiological psychological research studies that conclude that White Americans have higher conduct disorder prevalence rates than African Americans (Nock, Kazdin, Hiripi, & Kessler, 2006).

It is also essential to examine specific factors affecting findings among African American families and the cultural ingredients that facilitate successful outcomes. It is important to explore the effects of chronic environmental stress with regard to the effect it has on children, especially those facing numerous social, economic, and psychological stressors (Evans & Kim, 2013). As such, the purpose of this chapter is to review the literature pertaining to CBT among African American youth, incorporate the socio-historical context of the African American experience, identify existing culturally conscious CBT approaches that are effective with African American youth, explore factors contributing to attrition among African American youth, and to highlight the need for further research in this population.

Behavioral Interventions in African American Youth

Throughout the lifespan, African Americans struggle with the same mental disorders that afflict their European American counterparts. The National Survey of American Life (NSAL) examined anxiety disorders among African Americans, Blacks of Caribbean descent, and non-Hispanic Whites in the USA (Himle, Baser, Taylor, Campbell, & Jackson, 2009). Results indicated that although non-Hispanic Whites were at elevated risk for generalized anxiety disorder (GAD), panic disorder (PD), and social phobia compared to Caribbean Blacks and African Americans, when Black respondents met criteria for an anxiety disorder, they experienced higher levels of overall mental illness severity and functional impairment compared to White respondents (Himle et al., 2009). Himle and colleagues also found that Black respondents had higher rates of post-traumatic stress disorder (PTSD) and suggest that increased exposure to high trauma environments and oppression explicate the elevated prevalence rates of PTSD in Black respondents. Thus, these results indicate a need for targeted treatment to remediate anxiety disorders among diverse groups, as greater severity and persistence of many disorders is evident among Black Americans.

Among African American youth, the National Household Survey on Drug Abuse (NHSDA) epidemiological study examined mental health conditions among a representative sample of diverse 12–17 year olds ($n = 19{,}430$) via in-home surveys to determine 12-month prevalence and comorbidity (Chen, Killeya-Jones, & Vega, 2005). They found that over half of African American youth met criteria for an anxiety disorder, 18.3 % had Attention Deficit/Hyperactivity Disorder (ADHD), 26.4 % had Oppositional Defiant Disorder (ODD), and 5.4 % struggled with a substance use disorder. African American youth reported more psychiatric symptom clusters overall than White and Hispanic youth, despite lower use of licit and illicit substances, with significantly higher rates of anxiety disorders (OR = 1.67). They also reported higher rates of comorbidity than any other ethnic group, and younger adolescents had a slightly higher rate of comorbidity than their older counterparts.

Angold et al. (2002) utilized a large rural sample of African American and European American youth ($n = 920$) from four North Carolina counties, with more than half the sample being comprised of primarily low-income African Americans ($n = 541$). Twenty-one percent of the African American sample had one or more DSM-IV diagnoses, yet only 3.2 % had utilized mental health services outside of the school system in the previous)3 months. Disruptive behavior disorders, such as ADHD, conduct disorder, and ODD, were more common than affective and anxiety disorders. Among the specific diagnoses, the most common were childhood-onset conduct disorder, anxiety disorders (primarily separation anxiety and social phobia), and substance use disorders. Thus, there is a compelling need for CBT treatments for African American youth.

Cognitive Behavioral Therapy in African American Youth

CBT for Anxiety and Trauma

Anxiety disorders are among the most common conditions affecting youth, with prevalence rates between 2 and 19 % (Costello, Egger, & Angold, 2005), and CBT remains the treatment of choice for such disorders. There is often an assumption that anxiety is a product of distorted/irrational beliefs about one's environment and/or internal processes, and so the identification of such perceptions is an important therapeutic target, depending on the age and the cognitive flexibility of the child. Given African American youth experiences with chronic prejudice, racism, differential access to resources, and documented disparities in how they are viewed and treated by authority figures (American Psychological Association, APA Task Force on Resilience and Strength in Black Children and Adolescents, 2008), behavioral and emotional difficulties experienced by African Americans may be a result of lived experiences and/or socio-cultural factors that genuinely impact them over the life course (Chapman, DeLapp, & Williams, 2014). Such experiences can serve as a catalyst for development and expression of mental disorders in African Americans of all ages, and are not simply cognitive distortions that can be reframed through Socratic questioning. For example, racism at school, bullying from peers, and discrimination from teachers could contribute to problems such as social anxiety, agoraphobia, and school refusal. Thus, therapists must bring an understanding of collective African American experience with them when working with African American youth (Parham, 2002).

In addition to the ability to teach reasoning and thinking of alternative ways to solve a problem, CBT includes behavioral and physiological components (such as deep breathing, guided imagery, and progressive muscle relaxation) that teach youth relaxation strategies to manage unwanted physiological arousal, while also providing practice in utilizing adaptive behaviors during activities that simulate difficult situations (e.g., through in vivo/imaginal exposure, therapist modeling, and role playing) (Seligman & Ollendick, 2011). Programs can be implemented to address the cognitive, behavioral, and physiological components of psychological dysfunction when working with adolescents struggling from internalizing (e.g., anxiety and depression) symptomology (Fisak, Richard, & Mann, 2011). For example, a youth struggling with anxious arousal can practice identifying unwanted feelings (e.g., increased heart rate, nausea) and learn to implement relaxation techniques during situations that elicit these physiological reactions (Fisak et al., 2011). Indeed, mindfulness techniques have gained popularity in recent years and are being applied (often very successfully) to a variety of therapeutic treatment plans (Brown, Marquis, & Guiffrida, 2013). However, as mentioned previously, the existing literature regarding the application of CBT in African American children is sparse, resulting in gaps in knowledge about generalizability and effectiveness of such treatments for individuals of diverse backgrounds (Scheeringa, Weems, Cohen, Amaya-Jackson, & Guthrie, 2011; Schwartz, Radcliffe, & Barakat, 2007; Waldrop & de Arellano, 2004).

Kendall et al. (2008) conducted an RCT that examined CBT outcomes among African American children ages 7–14 ($n = 14$) with an anxiety disorder, and found that family CBT was not superior to individual CBT. However, there were significant improvements in the reduction of anxiety. These findings regarding African American familial participation should be interpreted with caution due to the small sample of African Americans involved in the study. The findings are however important for our understanding of culturally acceptable approaches to the treatment of anxiety with African American youth and families. Findings from a study by Khanna and Kendall (2009) illustrated benefits in child global functioning by including parents in family CBT for child anxiety; there was an improvement in the child's overall functioning (but not the child's anxiety levels) when there was a parent-training component implemented.

Current literature indicates that group cognitive behavioral therapy (GCBT) is possibly efficacious for African American youth with anxiety disorders (Huey & Polo, 2008). GCBT involves the use of cognitive and behavioral strategies including exposure, self-control training, contingency management and contracting, peer modeling, and feedback. Although the sample size was small ($n = 12$), Ginsburg and Drake (2002) found that anxious African American adolescents benefited from adapted GCBT and that adapted GCBT was superior to an attention control placebo. Specifically, for test anxiety in African American youth, anxiety management training, study skills training, and a combination of both (modified anxiety management training) meet criteria for efficacy in treatment (Huey & Polo, 2008).

LeSure-Lester (2002) was the first study to provide empirical evidence of CBT treatment with African Americans who were abused. Participants were of low SES and previously placed in group homes or with the local authority. Participants who received CBT demonstrated greater rates of behavior change from the pretest phase to the posttest phase. More specifically, trauma-focused cognitive-behavioral therapy (TF-CBT; Deblinger & Heflin, 1996) has been shown to be efficacious for trauma-exposed ethnic minority youth. TF-CBT is a structured, short-term parent and child-focused treatment involving psychoeducation, coping skills training, exposure, cognitive processing of the abuse experience, and parent management training.

One study examined the efficacy of TF-CBT in African American children between the ages 3 and 6 with PTSD (Scheeringa et al., 2011). Participants were living in New Orleans, largely of low education, and primarily with no fathers in the home. African American children accounted for 60 % of the sample size; unfortunately no demographic information on the SES of participants were provided. The protocol consisted of 12 sessions and included graduated exposures to trauma-related reminders in three modalities (drawings, imaginal, and in vivo). Parental/caregiver involvement was also incorporated to build the parent–child bond, and the alliance between the therapist and child. Results indicated that TF-CBT was effective in reducing trauma-related symptoms. Of the 25 treatment completers, 17 had PTSD diagnosis pre-treatment and only 3 still had the diagnosis post-treatment, representing 82.4 % reduction (Scheeringa et al., 2011). This study suffered from high dropouts (64 were randomized), which is unfortunately common for PTSD treatments, and even more so among African Americans (Lester, Resick, Young-Xu, & Artz, 2010).

CBT for ADHD

The CBT paradigm has been successfully used to assist children ages as young as 3 years of age with hyperactivity, aggression, and disruptive behaviors. In older children it has been shown not only to significantly improve academic outcomes, increase social reasoning abilities; and improve peer relationships, but also to maintain these changes (Crawley, Podell, Beidas, Braswell, & Kendall, 2013).

A 10-year review highlighted significant findings for African American children with ADHD (Miller, Nigg, & Miller, 2009). The authors conducted a systematic search and identified 52 relevant empirical investigations. The pooled aggregated data revealed that ADHD behavior ratings (parent and teacher) evidenced higher scores for African American children compared to non-Hispanic Whites, but African American children were diagnosed with ADHD only two-thirds as often as White youth (Miller et al., 2009). Miller et al. speculated this could be due to a less structured and more active class environment, which results in higher levels of ADHD activity as rated by teachers. Another possibility is that African American youth exhibit more ADHD symptoms because they are exposed to more ADHD-related risk factors, such as low SES, exposure to environmental toxins, and maternal stress (Arnold et al., 2003; Grizenko et al., 2012). However, there was a lack of sufficient data to determine the contributing factors for the reported elevated ADHD symptoms among African American children, demonstrating the need for more research on this population.

Findings of other studies reported in the Miller et al. (2009) review mentioned efficacious ethnically and culturally sensitive methods to evaluate for psychopathology and comorbidity and treatment of ADHD in African American youth. For example, Samuel et al. (1998) utilized culturally adapted structured interviews administered by African American raters trained in cultural sensitivity and blind to child diagnosis. This was a middle-class sample consisting of 19 African American children with ADHD compared to 24 without. Results indicated a higher level of comorbidity with ODD, severe major depressive disorder, bipolar disorder, and separation anxiety in African American children with ADHD. Unfortunately, this was a small sample, and as previously stated, limited literature exists to explain the possible reasons for elevated comorbidity among African American children with ADHD.

One of the few studies exploring these issues and outcomes was the Multimodal Treatment Study for Children with Attention Deficit Hyperactivity Disorder (MTA), which was conducted by six independent research teams in collaboration with the National Institute of Mental Health and the US Department of Education. The MTA was a 14-month study designed to address questions about the individual and combined effects of pharmacological and psychosocial/behavioral treatment for children of ages 7–9 years with ADHD. This study represented a broad range of ADHD youth ($n = 579$), 20 % being African American (Arnold et al., 2004). The 14-month (end of treatment) intent-to-treat results showed that for ADHD and ODD symptoms, the expert MTA medication management, whether alone or in combination with behavioral treatment, was significantly superior to behavioral treatment alone and to routine community care—even though the community group received similar medication from their community physician. The combination of expert medication management and behavioral treatment was not significantly better than the medication alone (MTA Cooperative Group, 1999). Though the practice parameters for the treatment of ADHD indicate that behavioral treatments may be used alone or in combination with medication, in most direct comparisons the efficacy of medication exceeded that of behavioral interventions alone. Conversely, for children ages 4–12, behavioral interventions had a moderate to large effect sizes compared with no treatment and compared with nondirective parent counseling and support (Murray, 2008).

Arnold et al. (2003) also examined the effects of race and ethnicity on treatment and outcome in the MTA study. Out of 579 boys with ADHD (mean age 8.5 years), 111 were African American. Unfortunately, no analysis of family SES was provided so we do not know the SES of the African American youth. Ethnic minority boys benefited significantly from combined treatment (medication and behavioral treatment), compared to medication treatment alone (Arnold et al., 2003). This finding was thought to be due to a preference among African Americans for a direct, structured therapeutic approach with clear, meaningful interventions. In addition, minority families were cooperative with the combined treatment interventions, indicating that the approach was acceptable and accessible, and therefore effective for use with those families.

Miller et al. (2009) speculated that African Americans might be uncomfortable with mental health interventions for problems like ADHD, due in part to misperceptions about the disorder, such as the notion that the child can simply stop the behaviors or the problems will improve on their own. African American parents are less likely to know where to go for help and are more likely to have negative expectations about the treatment process. Thus African American children may experience increased impairment from ADHD due to barriers to receiving treatment. Consequently, psychoeducational interventions may lead to greater treatment utilization among African American parents, caregivers, school employees, and community service providers with the implementation of community education on ADHD diagnosis and intervention as well as training and increased awareness of cultural issues (Miller et al., 2009).

CBT for Oppositional Behaviors and Conduct Disorder

Several RCTs of psychosocial interventions demonstrate that disruptive behavior disorders, including ODD and Conduct Disorder, respond well to behavioral interventions including many of the well-established parent management-training programs that focus on teaching parents behavioral strategies to reduce target behaviors such as temper tantrums, noncompliance, aggression, defiance, stealing, and destruction of property (Miranda et al., 2005). Juvenile delinquency occurs when minors participate in illegal behavior, and thus Conduct Disorder and its precursor ODD, are typically associated with delinquency. Although recent reviews point to several successful approaches for preventing juvenile delinquency, multisystemic therapy (MST) has been considered a treatment of choice to reduce criminal offending among African American youth (Miranda et al., 2005; Scherer, Brondino, Henggeler, Melton, & Hanley, 1994). MST is an intensive, family-focused, and community-based treatment program that includes CBT and pragmatic family therapies (Henggeler, Melton, Brondino, Scherer, & Hanley, 1997). Therapists visit youth and their families at home and in their communities to provide treatment where and when it is most needed and to increase generalizability of acquired skills. Additionally, the therapist is available around the clock, and sessions may occur daily. MST includes techniques derived from family therapy, behavioral parent training (BPT), and CBT. Finally, MST includes ongoing training and supervision to monitor treatment integrity. However, a recent meta-analysis of 22 studies found only small effects for MST in reducing delinquency, and it was actually least effective with ethnic minority clients (van der Stouwe, Asscher, Stams, Deković, & van der Laan, 2014). Clearly, more research is needed to determine the best ways to help African American families struggling with the challenges of juvenile delinquency.

In addition to case studies examining the efficacy of CBT in African American children (e.g., Costigan, 2001), CBT has also been empirically demonstrated to reduce emotional, behavioral, and social difficulties and to increase adaptive school behaviors (Arnold et al., 2004). Specifically, several treatment modalities have been identified as effective for use with maladjusted children. An individual case presented by Waldrop and de Arellano (2004) assisted a 5 year-old African American male child with developing and practicing communicative skills utilizing offender-focused treatment. The authors describe the offender-focused treatment as an intervention that utilizes familial support to help the victim of a trauma face their perpetrator. Consequently, after 22 sessions of CBT and offender-focused therapy, the young child demonstrated a significant reduction in anxiety, depression, withdrawn behavior, thought problems, and PTSD arousal symptoms. He also became more behaviorally activated and exhibited more engagement with his peers. The authors posited that offender-focused treatments that include family support might be helpful for decreasing the risk for further abuse. The offender-focused treatment included familial support to encourage empowerment and to increase overall resilience to face the event and the perpetrator.

In another study, Boxer and Butkus (2005) used an intervention for an aggressive African American male adolescent by adapting standard techniques of CBT and incorporating social-cognitive targets. As a result, his problems and aggression did not reemerge over time and he began socializing appropriately with peers and his mother. Aggressive youth may struggle with their appraisal of social situations, for example, experiencing thoughts such as, *He bumped into me because he thinks that I am a punk*, and similar types of thinking can be a direct trigger for violent behaviors (Wilson & Cottone, 2013). An effective skills-based technique used to teach adolescents how to challenge such maladaptive beliefs is problem-solving skills training, which encourages the youth to evaluate internal and external cues influencing the situation prior to identifying an appropriate solution. Some studies have also illustrated greater use of coping skills when positive parenting is encouraged by the intervention (Wilson & Cottone, 2013).

Socio-Historical Context and Cultural Adaptations

Studies suggest that single parenthood and extended families continue to be more common among Blacks than among Whites. Vereen (2007) highlights that Black households are more likely to include extended family members, regardless of the immediate family unit, although the importance of extended family is often not addressed in research. The existing literature describes African American and other Black cultures as collectivistic/communal. Communalism emphasizes the importance of social bonds and responsibilities, reflects a sense of interdependence and preeminence of the collective well-being, and includes drive for connection within the group (American Psychological Association, APA Task Force on Resilience and Strength in Black Children and Adolescents, 2008; Cokley, 2005). Among African American children, communalism, cultural capital, spirituality, and intergenerational transmission of wealth are protective factors mitigating the impact of their unique socio-cultural and political realities. It is important to understand the development of the African American child in the unique context of US society because it means factoring in the impact of lower SES, limited resources, and reduced access to education (for impoverished youth) and the impact of discrimination and racism, as these may contribute to dysfunction. Hence, identifying key features that mitigate these chronic experiences between low SES and underserved African Americans is warranted not only to conduct future research but to also inform clinical mental health practices.

Cokley (2005) maintained that understanding African American identity should focus on principles rooted in an Afrocentric worldview that critically examines and affirms African cultural values (also referred to as Afrocentric values) as the foundation of African American identity and culture (Akbar, 1989; Cokley, 2002; Hilliard, 1997; Nobles, 1989). This includes an emphasis on spirituality (i.e., emphasis on “being spirit” rather than just practicing religion; Grills, 2002), collectivism (i.e., priority to the goals of family and the group; shaping behavior based on family and African American norms and duties; interdependence; Triandis, 2001), communalism (i.e., emphasis on relationships; recognition of every community member’s value and uniqueness; unity without uniformity; Gordon, 2002), and belief in self-knowledge as the basis of all knowledge (Myers, 1988; Parham, 2002). It is worth noting such values are not exclusive to people of African descent and can be held by people of various ethnic groups and cultures throughout the world. Some have posited that these values, constitute an optimal worldview (Myers, 1988), therefore, understanding the cultural values of the African American family is paramount to understanding the origin, dynamic, and manifestation of mental health concerns. Such an understanding will provide further insight into culturally sensitive implications for treatment.

Moreover, Black Americans are a heterogeneous group and do not all share the same worldviews. Differences in SES and acculturation will result in differences in worldview, and consequently the presentation of mental disorders and effectiveness of treatment. Highly acculturated families will respond better to treatments developed on European Americans than their less acculturated counterparts (Carter, Sbrocco, & Carter, 1996). Additionally, immigrant and foreign-born Blacks (e.g., Caribbean Americans, Ethiopian Americans) will differ in their historical and cultural understanding of the US experience, as the legacy of colonialism affects each group differently. As a result, foreign-born Blacks may have a different perspective on oppression, White privilege, and associated outcomes in youth (American Psychological Association, APA Task Force on Resilience and Strength in Black Children and Adolescents, 2008).

Although much of our current knowledge of child and adolescent mental health and illness is derived from research conducted largely with middle-class European American youth (American Psychological Association, APA Task Force on Resilience and Strength in Black Children and Adolescents, 2008), in recent years, a strong body of research has emerged that has assisted in creating a knowledge base of culturally sensitive components that can be incorporated into CBT. Of note, Schwartz et al. (2007) reported culturally sensitive components to consider when working with African American youth and their families. These recommendations were developed as part of an RCT that examined African American children between ages 12 and 18 with a sickle cell disorder ($n = 58$). Each intervention involved home-based sessions that included CBT components of pain management such as relaxation, deep breathing, guided imagery, and positive self-statements. Both the adolescent and a family support person were asked to practice treatment components together in between sessions (Schwartz et al., 2007).

To identify components of the intervention necessary to improve its cultural sensitivity and effectiveness, a review of literature describing issues of cultural competence in interventions with African Americans was conducted. Ten culturally sensitive components for treatment were identified: inclusion of families, emphasis on empowerment, acknowledgement of stress related to minority status, identification of stress-related SES (including limited resources or barriers faced by African Americans who have achieved economic success), culturally sensitive content, awareness of stigma surrounding mental health problems, mistrust of research, availability of community or home-based intervention, flexible scheduling, and training in cultural sensitivity for treatment providers (Schwartz et al., 2007). Although there were challenges regarding staff size, time commitment, and safety, the results indicated that the home-based training was effective in terms of treatment completion. Other studies have highlighted the importance of many of these elements as well (Williams, Tellawi, Wetterneck, & Chapman, 2013).

Similarly, BPT for children with externalizing problems may be an effective approach for African American youth (e.g., Erhardt & Baker, 1990), as it resonates with the collectiveness of the African American culture. Studies of BPT have typically examined group-based interventions consisting of 8–16 sessions in which parents are taught to implement behavior modification techniques through modeling, discussion, role playing, and home practice (Murray, 2008). These techniques are rooted in the principle of CBT principles and include; (a) identifying and monitoring behaviors, (b) providing positive attention, (c) ignoring minor inappropriate behaviors, (d) implementing formal reward systems, and (e) administering consequences. Parents receive a psychoeducation intervention that teaches them the techniques that were administered to their child. The parent observes the child via live video recording and is simultaneously instructed by the clinician on how to implement the techniques. This approach supported parental acquisition of the skills needed to reinforce treatment outside of the therapeutic setting, and assisted the clinician in assessing whether the parent was able to understand the child's behavioral expressions. In addition, the parent-training components also enhanced the therapist–client therapeutic alliance. BPT has illustrated large improvements in parent ratings of problem behaviors and observed negative parent and child behaviors, and can be further enhanced for minorities by the inclusion of culturally similar examples. Child compliance rates, aggression, perceived severity of ADHD symptoms, parent management skills, and parenting stress also show improvement as a result of BPT interventions (Murray, 2008). Therefore such interventions may be especially well-suited for African Americans as they empower the family to work together effectively.

Schwartz et al. (2007) mentioned the importance of recognizing stress related to ethnic minority status. Key CBT treatment ingredients to manage stress are relaxation exercises (i.e., focusing on the breath), gradual exposure to fear hierarchies to habituate extinguishing fear, frequent and consistent practice of replacement behaviors and thought monitoring. Utilizing the guided imagery technique, participants choose imagery to promote cultural consonance, including active and exciting events like sports or familiar settings; music may be incorporated into guided imagery (Schwartz et al., 2007). In addition, progressive muscle relaxation is another technique that has demonstrated successful outcomes in African American youth (Schwartz et al., 2007).

Recent research has indicated that musical interventions can be successfully incorporated into CBT for African Americans. For example, two exercises developed by Neal-Barnett et al. (2011) use music and a call-response method, prevalent in some African American communities, as a form of cognitive restructuring for women with anxiety. The *So What Chorus* and the *Build Your Own Theme Song (BYOTS)* are part of a musical intervention for decreasing anxiety symptoms in members of the Sister Circle, an intimate group therapy setting for African American women. Culturally relevant musical CBT interventions have likewise been used to address mental health concerns in racially diverse children (Fitzgibbon et al., 2005, 2011).

The Importance of Promoting Positive Ethnoracial Identity

Ethnoracial identity consists of a sense of commitment and belonging to an ethnic/racial group, positive feelings about the group, and behaviors that indicate involvement within the group (Avery, Tonidandel, Thomas, Johnson, & Mack, 2007; Robert et al., 1999). Positive ethnoracial identity is a sense of self, which has been demonstrated to be a protective factor related to identity development among African Americans and other people of color. Positive ethnic and racial identities are essential to the personal and collective well-being and resiliency of African American youth (American Psychological Association, APA Task Force on Resilience and Strength in Black Children and Adolescents, 2008). Most research on psychological correlates of ethnoracial identity has focused on youth because the process of developing an ethnoracial identity is thought to typically begin childhood. Among adolescents, positive identity has been found to be associated with self-esteem, coping, sense of mastery, and optimism; conversely, loneliness and depression have been negatively related to ethnoracial identity (Robert et al., 1999). In adults, positive ethnoracial identity has been associated with self-esteem and reduced anxiety and depression (Lorenzo-Hernandez & Ouelelette, 1998; Williams, Chapman, Wong, & Turkheimer, 2012). Negative ethnoracial identity in African Americans has been linked to poor self-esteem, problems with adjustment, poor school achievement and dropout, delinquency, eating disorders, and substance abuse (Rivas-Drake et al., 2014; Vandiver, 2001).

Consequently, research has identified racial socialization as a protective factor. African American families are instrumental in the process of racial socialization by transmitting values, beliefs, and ideas based on cultural knowledge of the competencies needed for optimal functioning as a stigmatized minority in society (American Psychological Association, APA Task Force on Resilience and Strength in Black Children and Adolescents, 2008). Racial socialization influences children's identity and self-concept, beliefs about the world, strategies and skills for coping with and navigating racism, and inter- and cross-racial relationships and interactions (Lesane-Brown, Brown, Caldwell, & Sellers, 2005). African American children who learn that others may think negatively of them in concert with values, beliefs, and knowledge of a positive racial identity are less likely to have negative outcomes and more likely to be resilient in adverse conditions (American Psychological Association, APA Task Force on Resilience and Strength in Black Children and Adolescents, 2008). Finally, an emphasis on empowerment is essential in acknowledging social, emotional, and cultural strengths, encouraging self-advocacy, bolstering racial pride, and supporting spirituality (Cokley, 2005; Schwartz et al., 2007).

Thus clinicians should routinely assess and consider the client's stage of ethnoracial identity development when working with African Americans, especially youth. This might occur in the form of clinicians encouraging and supporting African American clients in the exploration of their ethnoracial identities to help improve overall psychological well-being. CBT interventions might include discussions of what the client likes about African Americans, learning more about Black history and the achievements of African Americans, explicit rejection of pathological stereotypes, and increased involvement in traditional cultural activities to build a greater sense of ethnoracial pride (Williams, Chapman, et al., 2012; Williams, Gooden, & Davis, 2012). Additionally, the American Psychological Association, APA Task Force on Resilience and Strength in Black Children and Adolescents (2008) noted that critical-mindedness could help protect against the damage experiences of discrimination can cause and facilitate a critique of existing dysfunctional social conditions. Understanding cultural differences can promote flexibility and give one the tools to adapt to the difficult cognitive, emotional, and social situational demands that today's minority youth must often traverse.

Treatment Attrition among African American Youth

Attrition is a significant problem in the evaluation and delivery of mental health care for African American youth (Gonzalez, Weersing, Warnick, Scahill, & Woolston, 2011). Individuals from ethnic minority groups are less likely to initiate mental health treatment and more likely to end treatment prematurely (Gonzalez et al., 2011; Waldrop & de Arellano, 2004). Attrition for children and adolescents may depend heavily on parent and family factors (i.e., finances, insurance coverage, cultural mistrust). Additionally, several factors have been identified that may contribute to low engagement and poor retention in therapy, including a perception of therapy as being irrelevant to real-life problems, stigma and shame, family stressors, and lack of awareness of available resources (Williams, Beckmann-Mendez, & Turkheimer, 2013; Williams, Domanico, Marques, Leblanc, & Turkheimer, 2012). Treatment adherence is one area in which culture, race, and ethnicity have been clearly demonstrated as relevant to treatment success

(Waldrop & de Arellano, 2004). The apparent relevance of treatment approach to problems experienced (such as discrimination, limited access to resources, or the overlap of treatment content with the client's own experiences) may impact attrition rates. Cultural relevance has been shown to make a difference with the retention of information and knowledge (Wilson & Cottone, 2013), so a culturally informed approach to treatment is essential not only for the sake of avoiding attrition, but also for ensuring that the work done in therapy does not evaporate the moment the patient walks out of the therapist's office.

In concert, research postulates explanations for engagement of African American families and completion of treatment. Noting that external and complex stressors account for a large part of the lack of engagement in treatment, research suggests that African American families may believe treatment is of low value (McNeil, Capage, & Bennett, 2002; Neal-Barnett, 1996). For example, African Americans have different parental values than European Americans, and thus, it is likely that African Americans may not find the same treatment efficacious (Capage, Bennett, & McNeil, 2001; Forehand & Kotchick, 1996). Thus when African American families illustrate lower participation rates in treatment, clinicians should consider the perceived value of the treatment. Capage et al., (2001) identified parental stress as a factor accounting for 65 % of the variance that predicted African American's drop-out rates. The study concluded that clinicians should use assessment tools (i.e., Parental Stress Indicator) to identify parental stressors that may impede successful treatment completion.

Other factors suspected of negatively impacting mental health service use and perceptions among African Americans include cultural mistrust, historical and current medical and research abuses (Suite, La Bril, Primm, & Harrison-Ross, 2007). Cultural mistrust, decreased help-seeking behaviors, and lower participation in treatment have been hypothesized as being related to historical events such as the US Public Health Service Syphilis Study at Tuskegee (1932–1972) and more recent publicized abuses such as the Johns Hopkins Lead Paint Study (Gamble, 1997; Spriggs, 2004; US Department of Health and Human Services (USDHHS), 2001). These are just a few events that may account for the cultural mistrust and stigma associated with higher African Americans attrition rates. Other contributing factors are the scarce number of culturally competent and minority mental health practitioners. According to the U.S. Department of Labor (2012), only 5.3 % of physicians, 5.1 % of psychologists, and 18.7 % of counselors are African American. This can make it difficult to connect with ethnically similar mental health providers and contribute to the notion that mental health care is not relevant to African Americans.

Conclusion

The foundation of CBT is embedded in the notion that changing cognitive activity and behaviors can bring about affective change. CBT has been demonstrated to be the most effective treatment for many disorders when compared to other treatment modalities (Segal et al., 2002). Given the slow emergence of empirically sound research studies with meaningful numbers of African American youth, there remains a paucity of culturally sensitive mental health treatment interventions. A few studies have noted that parent/caregiver training is efficacious for African American youth given their familial values rooted in communalism and extended kinship support networks. Adaptations discussed included parental involvement/family-based intervention, empowerment utilizing familial support, understanding the impact of racism, and facilitating positive ethnoracial identity development.

Further investigative research is also needed as treatment attendance and outcome are affected by stress related to ethnic minority status, stigma associated with mental health problems, and mistrust of mental health providers. Treatments with culture-specific modifications can perhaps improve the quality of mental health care services available to underserved populations by increasing the credibility of treatment interventions (Waldrop & de Arellano, 2004; Williams et al., 2014). Thus, further examination of African American values is needed to continue to inform the research body and the emerging and existing treatment modalities.

As noted by Sayers and Heyman (2003), CBT is ideal in many ways for African American families and youth due to the empowering nature of this approach and its focus on building strengths and achieving goals. Furthermore, the collaborative nature of CBT may be ideal for African American youth, since the therapist is characterized as the expert in the approach while the youth is viewed as an expert of herself (Kelly, 2006). Insomuch as the evidence indicates that CBT is effective for African Americans, the increased provision of CBT interventions in communities, schools, homes, and even churches could help to expand access to these services (Ginsburg & Drake, 2002; Queener & Martin, 2001). Finally, ongoing training of clinicians in cultural sensitivity, and inclusion of culturally sensitive content into empirically supported interventions remains a priority (Williams, Tellawi, et al., 2013).

Future Directions

More research is needed (i.e., RCTs, longitudinal, experimental studies, and treatment outcome studies) for African Americans in general and especially for African American youth. More empirical studies are imperative as a means to evaluate the efficacy of a treatment. Future studies should examine attrition rates with shorter CBT sessions that focus on the most immediate client concerns. In addition, more culturally sensitive psychologists and psychologists of color are needed to implement such studies. Increased funding (i.e., scholarships, grants for research) for African American psychologists and funding for more training in cultural competency for all mental health providers would help greatly in reducing stigma and other barriers to care (Cryder, Kilmer, Tedeschi, & Calhoun, 2006).

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Dialectical Behavioral Therapy and Interpersonal Therapy

5

Rongrong Tao and My K. Banh

Introduction

Dialectical behavioral therapy (DBT; Linehan, 1993) and interpersonal therapy (IPT; Klerman, Weissman, Rounsaville, & Chevron, 1984; Weissman, Markowitz, & Klerman, 2000) are evidence-based treatments developed to treat borderline personality disorder (BPD) and major depression (MDD) more than 2 decades ago. Linehan (1993) developed DBT to treat adults who were often diagnosed with BPD and with chronic suicidal and self-harming behaviors and emotional dysregulation. DBT incorporates cognitive, behavioral and biosocial theories, dialectical philosophy, and Eastern meditation practice. Research findings suggest that DBT is effective in reducing suicidal thoughts and behavior, hospitalization and improving adherence in the treatment of (primarily White) adults with BPD and self-harming behaviors (Linehan et al., 2006; Robins & Chapman, 2004). During the past 2 decades, DBT has been adapted for adolescents (herein referred to as DBT-A) and has been shown to reduce suicidal behaviors in adolescents with depression (Katz, Cox, Gunasekara, & Miller, 2004; Rathus & Miller, 2002) and other psychiatric disorders (Goldstein, Axelson, Birmaher, & Brent, 2007; Nelson-Gray et al., 2006; Safer, Couturier, & Lock, 2007; Salbach-Andrae, Bohnekamp, Pfeiffer, Lehmkuhl, & Miller, 2008; Welch & Kim, 2012).

Similar to DBT, IPT was first developed to treat adults with non-psychotic major depressive disorders by Klerman, Weissman and colleagues (Klerman et al., 1984; Weissman et al., 2000). IPT assumes that depression is triggered by an individual's difficulties in managing interpersonal problems and the approach has been found to be effective in reducing depressive symptoms in white adults, older adults, and couples (DiMascio et al., 1979; Elkin et al., 1989; Foley, Rounsaville, Weissman, Holomaskas, & Chevron, 1990; Miller et al., 2001). As with DBT, IPT has been adapted for adolescents (herein referred to as IPT-A). IPT-A has shown to decrease depression (Moreau, Mufson, Weissman, & Klerman, 1991; Mufson, Moreau, Weissman, & Klerman, 1993) and other psychiatric disorders (Schaal, Elbert, & Neuner, 2009; Tanofsky-Kraff et al., 2010) in racially diverse and economically under-resourced adolescents (primarily African American and Latino). In addition to individual therapy format, IPT and IPT-A have been delivered in a group therapy format to treat and prevent major depression (Horowitz, Garber, Ciesla, Young, & Mufson,

R. Tao (✉) • M.K. Banh
Department of Psychiatry, Georgetown University Hospital, 2115 Wisconsin Avenue NW, Washington, DC 20007, USA
e-mail: Rongrong.Tao@gunet.georgetown.edu

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2007; O'Shea, Spence, & Donovan, 2015; Rosselló, Bernal, & Rivera-Medina, 2012).

Both DBT-A and IPT-A are manualized psychotherapies adapted from adult treatments that have some empirical support for their efficacy with youth. The adaptations made centered mainly on accommodating youth's developmental stage, social environment, treatment in different settings and formats (i.e., inpatient setting, residential treatment center, or juvenile detention center, group only without individual therapy formats) rather than addressing cultural factors and differences, with the exception of Rosselló and Bernal's IPT-A study (Rosselló & Bernal, 1999). To our knowledge, only two published studies of DBT were in a group format (Nelson-Gray et al., 2006; Shelton, Kesten, Zhang, & Trestman, 2011) and only a few IPT studies included a representative sample of African American youth.

This chapter will outline the key structures of DBT-A and IPT-A as manualized, evidence-based treatments with a special focus on those aspects of the interventions that are culturally congruent with African American youth and family culture. Additionally, we will discuss research studies supporting the use of DBT-A and IPT-A with African American and racially diverse adolescents including the various adaptations made. Finally, recommendations for future research and clinical care for African American and racially diverse youth are discussed.

Dialectical Behavior Therapy with Adolescents

Although the diagnosis of BPD in adolescents has been, at times, controversial, many adolescents with severe psychiatric problems have chronic and severe emotional dysregulation and self-harming behaviors. In 1995, due to the lack of evidence-based treatments for multi-problem suicidal youth, Miller and colleagues (Miller, Rathus, & Linehan, 2006; Rathus & Miller, 2002) began adapting DBT to treat adolescents with suicidal and self-injurious behaviors (Katz et al., 2004; Miller et al., 2006; Rathus & Miller, 2002). While retaining DBT's core elements, dialectical conceptualization and therapeutic functions and modes, the Dialectical Behavior Therapy with Suicidal Adolescents treatment manual (Miller et al., 2006) made several adaptations to address the unique developmental stage and social environment of adolescents. Adaptations included: (1) involving family in therapy and skills training, (2) adding a skills module to address adolescent-family dilemmas, (3) adapting the language to fit adolescents' developmental stages, (4) shortening the therapy duration, and (5) decreasing the number of skills taught within each core training session to improve compliance.

Key Concepts and Structures of DBT-A The underpinning theories and philosophy of DBT-A are consistent with the DBT for adults (Linehan, 1993). In addition to a cognitive behavioral approach, DBT-A views maladaptive behaviors and emotional dysregulation of adolescents with suicidal ideation and self-harm as consequences of the transactional interaction between the biological vulnerability of adolescents and their invalidating social environments. The dialectical philosophy perceives reality as the tension between opposing forces (e.g., positive and negative, good and bad, parent and child) that produces change. This newly changed state of being in the individual is comprised of diametrically opposed forces that lend themselves to continuous change within the individual. DBT-A is based on the idea that these internal, opposing forces can coexist and be synthesized. The aim of DBT then is to synthesize the opposing forces and create equilibrium within the individual. This process involves teaching individuals with BPD to weigh various points of view in a situation and work toward acceptance of the circumstance as is (Linehan, 1993). The fundamental goal of DBT-A, therefore, is to achieve a balance between accepting and validating an adolescent's presenting difficulties and motivating him/her to recognize the need for change.

Structures of DBT-A DBT-A consists of two treatment phases. In phase one (the acute phase), treatment duration is 16–20 weeks compared with 52 weeks for adults. The goal of the acute phase of treatment is to increase safety and behavioral control. The second phase of treatment consists of at least weekly treatments for 16 weeks. The goal is to target maintenance and generalization of learned skills.

DBT-A includes five treatment strategies during the acute phase of treatment: (1) individual therapy, (2) telephone coaching, (3) multifamily skills-training groups, (4) family therapy, and (5) therapist consultation meetings. The individual therapist is the primary therapist, who meets weekly with the adolescent for 50–60 min. The therapist works collaboratively with the adolescent to identify and reduce patterns of maladaptive behaviors, increase motivation to change, and apply skills learned in the multifamily skills-training groups to cope with distress and conflict. When needed, the individual therapist uses telephone coaching to support the youth in using learned skills in real life, challenging situations, while strengthening the therapist–client relationship. The multifamily skills-training groups differ from the adult skill-training groups in that they also include the adolescents' family members. The goals of these groups are to help adolescents and family members to learn more adaptive skills to cope with distress and conflict, and to diminish self-harming and maladaptive behaviors. These groups are often conducted weekly. Family therapy is also a unique addition to DBT-A. Because of the unique developmental period of adolescence, family becomes either the primary support system or the main source of conflict. Family therapy is used as needed to improve adolescents' primary support system and resolve conflicts and crisis. To increase therapist effectiveness, weekly therapist consultation meetings are conducted to ensure continuing education and support for DBT therapists and reduce and prevent therapist burnout. These adaptations can be effective for African American youth as the inclusion of both immediate and extended family is a salient and important facet of African American culture (Sue & Sue, 2012).

Skills-Training Modules In the multifamily DBT-A skills group, the four core skills of mindfulness, emotion regulation, distress tolerance, and interpersonal effectiveness of the adult DBT skills group are taught along with an additional fifth core skill: "walking the middle path." Through presentations, role-playing and homework reviews, patients learn to generalize and use skills in day-to-day situations. Mindfulness skills are typically the first set of core skills taught. These skills teach adolescents and family members to be in the moment and attend to current emotions and situations to achieve a state of "wise mind." Wise mind is achieved by balancing emotion mind, which operates on the current emotional state and rational mind, which operates on logical thinking and reason. Through wise mind, families can better maintain relationships, manage conflicts, and assert needs.

In the emotion regulation module, patients learn to decrease emotional suffering and change maladaptive emotional behaviors. Emotion regulation skills include identifying and labeling emotions, increasing positive emotional events, and taking opposite actions. Distress tolerance skills are designed to further support adolescents and family members in accepting distress, negative emotions and realities, and surviving crises. Skills include distraction, self-soothing, improving the moment, and assessing the pros and cons.

Interpersonal effectiveness skills aim to improve interpersonal problem-solving abilities. Patients learn strategies to ask and say "no" effectively and learn to cope with difficult interpersonal situations. This module also focuses on validation of self and others, and balancing validation with change. Families learn to apply behavioral principles to resolve adolescent-family dialectical dilemmas, such as excessive leniency versus authoritarian control.

Finally, the walking the middle path module is designed to enhance individual validation and reduce the stress and frequency associated with adolescent-family dialectical dilemmas. The goal for adolescents is to work toward changing painful or negative thoughts, feelings, and situations while also accepting themselves, others, and the current situations as they are. Patients learn to see situations and problem solve in more than one way through balancing acceptance and change.

Empirical Evidence for DBT-A and Other DBT Adaptations for Adolescents

Though multiple randomized controlled trials (RCT) have shown the efficacy of DBT in treating BPD, comorbid substance use disorders, and cluster B personality disorders in white adults (Linehan et al., 2006; Robins & Chapman, 2004), evidence supporting the efficacy or effectiveness of DBT is lacking for racially diverse adults and adolescents in general or African American adolescents specifically. Only two published prospective studies (Katz et al., 2004; Rathus & Miller, 2002), to our knowledge, used non-random assignment for a direct comparison of adolescents assigned to DBT-A or treatment-as-usual (TAU). Two other studies of DBT in adolescents included matched controls. One study compared adolescents treated with a DBT protocol to historic controls from a long-term inpatient unit (McDonell et al., 2010). The second study used a prospective design to examine matched controls in a residential treatment facility (Wasser, Tyler, McIlhaney, Taplin, & Henderson, 2008). Both of these latter studies included pre- and post-test designs and case series without direct comparison groups.

In a study by Rathus and Miller (2002), 29 mostly Latina adolescents with BPD features and suicide ideation or recent suicide attempt were assigned to weekly outpatient DBT-A. Eighty-seven adolescents were assigned to TAU, which included weekly individual psychodynamic psychotherapy and family therapy. After 12 weeks of treatment, participants in the DBT-A group had fewer hospitalizations and higher rate of adherence to treatment protocol compared to the TAU group, even though the DBT-A group had more severe psychopathology at baseline.

Katz et al. (2004) adapted DBT for inpatient settings with a focus on adolescent patients who met criteria for BPD. Their DBT protocol included four individual therapy sessions, ten adolescent skills group sessions, and consultation team meetings. Adolescents, aged 14–17 years, who were admitted to the inpatient unit due to recent suicide attempt or suicide ideation, were non-randomly assigned to either 2 weeks of DBT ($N=32$) or TAU ($N=30$). The TAU protocol included individual psychodynamic therapy, daily group psychodynamic psychotherapy, case management, and psychodynamic milieu. These researchers found that the DBT group had significantly greater reduction in number of violent incidents on the unit than the TAU group. However, both groups had significant reduction in total number of violent incidents on the unit, self-injurious behavior, non-suicidal self-injurious behavior (NSSIB), depressive symptoms, and suicidal ideation at 1-year follow-up.

The efficacy of DBT was also assessed by comparing the discharge outcomes of 106 adolescents with mixed diagnoses who received DBT with 104 historic controls who received individual and family therapy as needed while staying at a long-term inpatient facility (McDonell et al., 2010). Compared to at admission, youth who received the DBT protocols had significantly improved scores on the Children's Global Assessment Scale (C-GAS; Shaffer et al., 1983) and received fewer psychotropic medications at discharge. In addition, among a subgroup of youth who had three or more NSSIB at admission, adolescents who received any form of DBT were found to have significantly lower rates of NSSIB than historic controls at discharge after accounting for gender, age, length of stay, and the effect of time. Although this study had a large sample, most of the assessment data were not available for the historic controls group. Therefore, the outcome variables could not be compared and the majority of outcomes were pre-post comparisons. Furthermore, no information on the race or ethnicity of the study participants was provided.

In addition to adaptations made for outpatient and inpatient settings, DBT was also adapted for a residential treatment setting. In one study (Wasser et al., 2008), 12 mostly male adolescents (no information on the race or ethnicity of the participants was available) received 17 weeks of DBT (weekly individual and multifamily skills group) treatment. They were compared to 12 matched control youth who received 17 weeks of standard-therapeutic-milieu (STM) treatment (individual, group, family, behavioral, and medication treatments). Wasser et al. (2008) found that adolescents who received DBT had significantly greater reduction in depression whereas adolescents who received STM had greater reduction in psychomotor excitation post treatment. Both groups had significant reduction in overall psychiatric symptom ratings.

Several pre-post outpatient studies demonstrated that DBT is effective in reducing depression, functional difficulties, and thoughts of self-injury (see review by MacPherson, Cheavens, & Fristad, 2013). Pre-post comparisons found that improvements gained after 16–24 weeks of DBT were maintained at 1 year (Fleischhaker et al., 2011). James, Taylor, Winmill, and Alfoadari (2008) also found that symptom and problem reductions achieved with 1 year of DBT treatment were maintained at an 8-month follow-up.

In addition to being a promising treatment for adolescents with BPD features, suicidal behaviors and ideations, or self-injurious behaviors, a few pre-post treatment studies and case reports have reported the efficacy of DBT in treating youth with other psychiatric disorders such as bipolar disorder (Goldstein et al., 2007), oppositional defiant disorder (Nelson-Gray et al., 2006), eating disorders (Safer et al., 2007; Salbach-Andrae et al., 2008), and trichotillomania (Welch & Kim, 2012). Furthermore, a few studies also investigated the effects of using only DBT skills-training group without other modes of DBT to reduce childhood psychiatric problems. Nelson-Gray et al. (2006) found that 16 weeks of weekly DBT skills-training group were effective in reducing oppositional and externalizing behaviors, depression and internalized symptoms, and increasing interpersonal strength and positive behavior among non-suicidal adolescents with ODD (Nelson-Gray et al., 2006). Shelton et al. (2011) also found that DBT skills-training significantly reduced aggression and impulsive behaviors among incarcerated male adolescents with impulsive behavior problems. The majority of these studies included mostly females with small sample size. The ethnicities of the samples were mixed with only two studies that included African American youth as one of the major groups of participants (Nelson-Gray et al., 2006; Shelton et al., 2011). Notably, both studies reflected non-representative African Americans samples (i.e., African American youth with severe disruptive behavior problems and/or who were incarcerated).

Summary

Although adaptations of DBT for youth have not been subjected to rigorous RCTs, preliminary findings from pilot studies indicate that DBT shows promise in reducing a range of internalizing and externalizing psychiatric problems such as NSSIB, suicidal ideations and behaviors, as well as bipolar and oppositional defiant disorders. Even though none of the studies specifically examined racial/ethnic differences or made culturally specific adaptations to meet the needs of African American youth, two of the studies referenced (Nelson-Gray et al., 2006; Shelton et al., 2011) included a specific subpopulation of African American youth in their samples. DBT skills group training may be acceptable to African American youth and their families as this format reinforces the cultural orientation to communal work (i.e., working together as a part of a larger social community to assist one another in solving problems), which can lead to increased self-esteem and racial identity (Ford, 1997). Furthermore, problem-solving and behavioral treatment approaches have been recommended for working with African American youth and families in the literature (Leff et al., 2009; Paniagua, 1994; Sue & Sue, 2012). Therefore, DBT's problem-solving and behavioral approaches may align well with African American youth and families' desire for time-limited psychological treatments that have problem-solving and behavioral foci (Leff et al., 2009; Paniagua, 1994; Sue & Sue, 2012). Overall, the results from these pilot studies suggest that further evaluation of DBT for African American adolescent youth across different settings is necessary.

Interpersonal Psychotherapy for Adolescents

IPT was first adapted to treat major depression in adolescents more than 2 decades ago (Moreau et al., 1991; Mufson et al., 1993). While preserving its core concepts and structure, modifications have been made to accommodate the unique developmental period of adolescence. IPT-A has a shorter duration than IPT. The length of therapy is reduced from 16–20 weeks to 12–16 weeks to improve adherence and minimizing dropouts. IPT-A places much greater emphasis on teens' social networks, including not only parents but also siblings, friends, and school. The last modification is the concept of playing a "limited sick role" in which adolescents are encouraged to continue their school attendance and activities while they are depressed.

Key Concepts and Structures of IPT-A Similar to IPT for adults, IPT-A is based on Sullivan's (1953) interpersonal theory of depression and Bowlby's (1978) attachment theory. From the IPT perspective, major depression occurs as the consequence of biological predispositions and negative interpersonal experiences. Adolescence is a unique developmental period when major interpersonal changes occur as adolescents seek intimacy with peers, initiate romantic relationships, and increase autonomy from parents. IPT-A categorizes interpersonal problems into four domains: role transition, role dispute, interpersonal deficit, and grief. Like the original IPT, IPT-A is a time-limited, manualized treatment. The goals of IPT-A are to provide psychoeducation, identify affects, and build interpersonal skills to decrease interpersonal problems.

Structure of IPT-A IPT-A treatment involves three phases. The initial phase typically lasts for four sessions. During this phase, the therapist evaluates and confirms a diagnosis of major depression. Psychoeducation on depression and the theory and goals of IPT-A are provided to adolescents and their families. The therapist completes an interpersonal inventory with the adolescent to identify an interpersonal problem area and sets a treatment contract with the adolescent.

One or two of the four problem areas—role transition, role dispute, interpersonal deficit, and grief—are identified as the primary and secondary foci of treatment. Adolescence itself is recognized as a transitional period. Life changes such as attending a new school, gaining a new sibling or parent through remarriage could exacerbate existing depression or trigger a depressive episode. In addition, role dispute is particularly common between adolescents and their parents, although it could arise in any of teens' significant relationships when there are discrepancies in expectations. Interpersonal skills are also particularly important during adolescence as teens develop new relationships. When a significant loss happens in a teen's life, grief becomes the primary focus of treatment, as loss is a significant predictor of adolescent depression.

During the second phase of treatment, adolescents learn strategies to improve the primary and secondary problem areas and reduce depression. Through role-playing, adolescents learn to become more aware of the connection between their mood and interpersonal experiences and to improve communication and problem-solving skills that can lead to improved mood and interpersonal experiences. Originally, the second phase of treatment included four weekly skills-training sessions (Moreau et al., 1991; Mufson et al., 1993). However, this phase has been extended to include up to eight sessions or weeks depending on the number of problem areas and severity of interpersonal deficits that a teen has. The final phase of IPT-A is the termination phase. This last phase also includes four sessions of treatment. The goals of this phase are to (1) gradually transition adolescents away from relying on their therapists, (2) use acquired interpersonal skills independently and effectively, and (3) prevent or reduce relapse and reoccurrence of depression.

Empirical Evidence for IPT-A

Mufson and colleagues (Mufson et al., 2004; Mufson, Weissman, Moreau, & Garfinkel, 1999) conducted two RCTs to investigate the efficacy of the individual IPT-A that they had adapted. The first trial included 48 clinic-referred adolescents with MDD who were mostly under-resourced Latinas from single-parent homes. The youth were randomized to receive 12 weeks of IPT-A or to clinical monitoring, which included one or two 30-min meeting(s) with a therapist per month. Mufson et al. (1999) found that 75 % of adolescents in the IPT-A group versus 46 % of adolescents in the clinical monitoring group had depressive symptoms that remitted (Hamilton Rating Scale for Depression ≤ 6; Hamilton, 1960) by the end of the 12 weeks of treatment. In addition, the IPT-A group reported significantly higher social functioning, greater improvement on problem-solving skills, and also had higher adherence rates than the control group.

These positive findings were replicated in another RCT with youth receiving treatment from a school-based mental health clinic. Sixty-three adolescents (again mostly under-resourced Latinas, aged 12–18 years old) were randomized to 12 sessions of IPT-A versus treatment-as-usual (TAU; individual supportive therapy) delivered over 16 weeks (Mufson et al., 2004). The IPT-A group had significantly greater reduction in depressive symptoms and symptom severity, improved functioning on the C-GAS, and improved self-reported social adjustment compared to the TAU group. At 16-week phone follow-up assessment, youth in the IPT-A group maintained significantly greater reduction in depressive symptoms. However, improvements in overall functioning (as measured by the C-GAS) were not maintained.

Although they were not RTCs or comparative trials, Miller, Gur, Shanok, and Weissman (2008) reported two small open studies where IPT-A was used to treat minority (Latina and African American) pregnant adolescents with depression (Miller et al., 2008). One study (10 Latina, 3 African American, and 1 biracial) found that after 12 weeks of IPT-A, 93 % (13/14) of the adolescent girls had 50 % of reduction on their depression scores (Miller et al., 2008). The other pilot study (8 African American, 1 Latina, and 2 biracial) found 91 % (10/11) of the adolescent girls had 40 % of reduction on their depression scores at the end of 12 weeks of IPT treatment and the improvement was maintained at 20-week post-partum follow-up (Miller et al., 2008).

Empirical Evidence for Other Forms of IPT Adaptations for Adolescent Depression

Two other RCTs used a different adaptation (both developmentally and culturally) of the original adult IPT (Klerman et al., 1984) to assess the efficacy of IPT in comparison to Cognitive Behavioral Therapy (CBT) in depressed Puerto Rican adolescents (Rosselló & Bernal, 1999; Rosselló et al., 2012). The Rosselló and Bernal (1999) study included youth aged 13–17 years. Seventy-one depressed Puerto Rican adolescents (MDD or with a depression score of 13 or higher on the Children's Depression Inventory; Kovacs, 1983) were randomized to 12 weeks of IPT, 12 weeks of CBT, or waitlist control. Rosselló and Bernal (1999) found that both IPT and CBT were more effective in reducing depressive symptoms than waitlist. IPT was also superior to CBT in reducing depressive symptom. In addition, the IPT group, but not the CBT group, had significantly greater improvements on self-esteem and social adaptation compared to the waitlist group. There were no differences, however, between the IPT and CBT group at a 3-month follow-up.

The second study compared IPT with CBT in both individual and group therapy formats (Rosselló et al., 2012). One hundred and twelve Puerto Rican adolescents (ages 12–18) with depression were randomly assigned to four treatment conditions: individual IPT, group IPT, individual CBT, and group CBT. Adolescents received either a one-hour individual therapy or two-hour group therapy session weekly over 12 weeks. Rosselló et al. (2012) found that depressive symptoms were significantly reduced at post treatment in all four conditions. No significant differences were found between individual and group therapies. However, CBT was more effective in reducing depression symptoms and improving self-concept than IPT.

Although the original IPT and IPT-A were intended to treat major depression without high suicide risk, Tang and colleagues (Tang, Jou, Ko, Huang, & Yen, 2009) made additional modifications to IPT-A to treat a group of students in a Taiwanese high school who had moderate to severe depression, anxiety, suicide ideation, or previous suicide attempts. Seventy-three students were randomized to a modified IPT-A group or TAU group. The IPT-A group received two 50-minute face-to-face session twice a week and one 30-minute phone session each week for a total of 6 weeks, while the TAU group received 30–60 min of supportive and psychoeducation sessions by school teachers once or twice a week for 6 weeks. Adolescents who received IPT-A had significantly greater reduction in depression, suicide ideation, anxiety, and hopelessness than adolescents who received TAU.

In addition to IPT-A individual therapy format, IPT-A has also been adapted into a group skills-training format (IPT-AST; Young & Mufson, 2003). Several RTC studies compared IPT-AST with school counseling (SC) and found that IPT-AST was effective in reducing depressive symptoms in adolescents with subclinical depression and in preventing depression (Young, Mufson, & Gallop, 2010) as well as in reducing comorbid anxiety (Young et al., 2012).

IPT-AST was compared with a group cognitive-behavioral intervention (CB) adapted from the Coping with Stress Course (Clarke & Lewinsohn, 1995) and a standard wellness class (control) in a large group of high school students. Three hundred and eighty high school students (79 % Caucasian, 13 % African American, 2 % Latino) were randomized to 8 weeks of 90-minute sessions of IPT-AST, cognitive-behavioral intervention (CB) adapted from the Coping with Stress Course (Clarke & Lewinsohn, 1995) or a standard wellness class (control). Horowitz et al. (2007) found that adolescents in both IPT-AST and CB group had lower depression scores at post-intervention assessment than those in the standard wellness class. Furthermore, the results indicated that both IPT-AST and CB were more effective for the subgroup of adolescents with higher pre-treatment depression scores. Neither IPT-AST nor CB group were effective in reducing negative attributional style and conflicts with parents nor did the two treatments increase effective coping compared to the non-intervention group at post treatment. In addition, none of the positive effects were maintained at 6-month follow-up.

Recently, IPT-AST has been adapted to treat adolescent girls at-risk for obesity (Tanofsky-Kraff et al., 2010). Thirty-eight adolescent girls (ages 12–17) with a BMI between the 75th and 97th percentile were randomly assigned to 12 weeks of weekly group IPT adapted from IPT-AST, or group health education (HE). The sample included 47 % African American youth; over 60 % of the sample consisted of girls of color including Asian Americans and Latinas. At 6-month follow-up, adolescent girls in the IPT-AST group who had "loss of control eating" episodes at baseline had greater reductions in the number of episodes than the HE group. Furthermore, at 1-year follow-up, regardless of "loss of control eating" status at baseline, more girls in the IPT-AST group gained less than the expected BMI growth compared to the HE group.

In contrast to DBT-A, RCTs have been undertaken to assess the efficacy of individual (IPT-A) and group IPT (IPT-AST) in treating adolescents with MDD, subclinical depression, suicidal risk, and eating problems, in addition to preventing depression. Unfortunately, little of this research as focused on African American youth and to our knowledge, none of these studies focused exclusively on African American youth. However, similar to DBT-A, IPT-A and IPT-AST are both skills oriented approaches that focus on behavior modification and problem solving. Literature suggests these interventions may appeal to African American youth by offering structure and evidence of solutions to problems, particularly at the critical beginning stage of treatment (Fusick & Bordeau, 2004). Furthermore, IPT-A may be particularly congruent with African American girls' Africentric worldview, which consists of core values and traditions, including but not limited to "interpersonal orientation, collective responsibility, oral tradition, sensitivity to emotional cues, and harmony" (Belgrave, 2002). IPT-A is grounded in the self-in-relation theory, which similarly posits that interpersonal connections to family and close friends are central and the lack of positive relationships may be detrimental to youths' sense of self. Moreover, time-limited, focused and brief approaches may be particularly suited for African American youth and families as such techniques may be viewed as more culturally congruent with African American perceptions of and preferences for psychotherapy (Sue & Sue, 2012). Further evaluation of IPT-A and IPT-AST with a large representation of African American adolescents is sorely needed. Until RCTs become available for these approaches, it may still be useful to incorporate aspects of these interventions into clinical care with this population.

Recommendations

This review suggests several gaps in knowledge related to the use IPT-A and DBT-A with African American youth. As of this writing, we are not aware of any published RCTs of DBT with youth, although randomized studies are underway (e.g., Groves, Backer, van den Bosch, & Miller, 2012). Even though there are several RCTs for IPT in adolescents, the sample sizes have been small and treatment manuals and formats have varied across studies. Very few studies have included a significant African American youth population or males, particularly for DBT. In addition, there is very limited long-term evidence for the effectiveness of either DBT or IPT in adolescents. Although a few studies provided 6-month to 1-year follow-up assessments, overall long-term efficacy data are lacking. Most studies used different assessment tools and procedures, which make comparisons across studies difficult.

While these limitations exist, preliminary evidence from small samples of racially diverse youth, including African American youth, supports the use of IPT. More research is needed to examine DBT with African American and other youth of color, as aspects of these treatments may be culturally congruent. For example, approaches like DBT and IPT that focus on behavior modification and problem solving may be well received by African American youth and their families who are reported to prefer time-limited, directive, individualized treatments (Boyd-Franklin, 2006). While more extensive research is needed to examine the effectiveness of these interventions for African American youth and families, current empirical evidence suggests that the incorporation of skills training into the clinical care of youth with a range of psychiatric and behavioral health problems may be advantageous.

Several areas of investigation could improve care for this population. First, studies to determine specific skill sets that are particularly effective for African American adolescents and their families are needed. Second, examining different delivery methods that are more accessible to youth and their families could lead to treatments that reach more patients. Third, investigations emphasizing psychoeducation and engagement especially at the onset of treatment may be critical to support African American youth's transition into clinical care for mental illness and behavioral problems. Finally, further investigation of group DBT and IPT skills training is recommended since this format has been found to be effective among non-African American youth for decreasing depression (Rosselló et al., 2012), negative behaviors, and aggression, as well as in improving coping (Nelson-Gray et al., 2006; Shelton et al., 2011).

Conclusion

Currently empirical evidence provides some support for the use of DBT in adolescents with emotional dysregulation, suicidal and self-harming behaviors, ODD, eating disorders, and bipolar disorders. There is also emerging evidence to support the use of IPT in youth with depression, emotional dysregulation, self-harming behavior, and eating disorders. Moreover, research has demonstrated that both DBT and IPT can be delivered in a group format for non-suicidal teens. Studies also suggest that these treatments can be delivered in outpatient clinic, school and community settings, as well as in inpatient, residential, and juvenile detention centers. Preliminary findings suggest that IPT and DBT might be effective in treating difficult to reach youth with emotional dysregulation, interpersonal difficulties, those who are high risk and those with multiple problems where pharmacological treatment has limited efficacy. To date, although we are not aware of an IPT and DBT study that has exclusively focused on African American youth, several studies have included racially diverse youth and a few included a representative proportion of African American youth, which suggests IPT and DBT may hold promise as effective therapies for African American youth and their families. More rigorous research using these treatment approaches with a representative sample of African American youth is warranted.

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Mindfulness-Based Therapies

6

Carisa Perry-Parrish, Nikeea Copeland-Linder,
Lindsey Webb, and Erica M.S. Sibinga

Introduction

African American youth and their families are at increased risk of experiencing high levels of multiple types of stressors that may increase maladaptive coping strategies to manage negative affective experiences. Compared to White youth, ethnic minority youth are disproportionately exposed to a range of stressors (American Psychological Association, 2008) from daily hassles to chronic conditions such as poverty and racism (Miller, Webster, & MacIntosh, 2002), stress-related health problems (Woods-Giscombé & Gaylord, 2014), and traumatic events such as exposure to violence (Kliewer et al., 2004). Although emotion regulation and coping protect youth by reducing the impact of negative stressors (Barbarin, 1993), continued exposure to stressors may overload the coping resources of youth (Kliewer et al., 2004). Given the potential for increased exposure to both chronic and acute stressors and the general importance of coping/regulatory efforts in moderating the effect of those stressors, the emotion regulation and coping processes of African American youth are critically important targets of future research and intervention efforts. Mindfulness interventions are theorized to target regulation of emotion and coping processes associated with chronic stress, and thus may represent a helpful branch of psychotherapies to address the suffering experienced by many African American youth.

Mindfulness has been described as "paying attention in a particular way: on purpose, in the present moment, and nonjudgmentally" (Kabat-Zinn, 1994, p. 4). In essence, mindfulness is the complete awareness of what is happening right now, or "being in the zone." Therefore, mindfulness instruction is intended to enhance an individual's innate ability to be aware. Formal mindfulness instruction entails a range of techniques that help foster an intentional focusing of attention on one's present-moment experience while letting go of negative, self-critical judgments. As detailed explicitly in many mindfulness programs, this type of training aims to help individuals accept unpleasant and painful experiences without reactively attempting to change the experience (O'Brien, Larson, & Murrell, 2008). However, as most of us would prefer to reduce or eliminate pain and discomfort as much as possible, some mindfulness-based programs additionally adopt a dialectical position of balancing desire for change alongside intentional acceptance of the inevitability of suffering (O'Brien et al., 2008). As moment-to-moment awareness through the day is the ultimate goal of mindfulness programs, there is also instruction of informal techniques that can be used at any time.

C. Perry-Parrish (✉) • N. Copeland-Linder
L. Webb • E.M.S. Sibinga
Child and Adolescent Psychiatry, Bloomberg
Children's Center, Level 12, The Johns Hopkins
Hospital, 1800 Orleans St., Baltimore, MD 21287, USA
e-mail: cparris5@jhmi.edu

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The application of mindfulness meditation to reduce suffering has been a feature of behavioral medicine in the West for well over 30 years (Kabat-Zinn, Lipworth, & Burney, 1985). Meditation practices complement a group of established psychological approaches to reduce stress and discomfort (Baer, 2003), including cognitive-behavioral therapies and relaxation techniques (see Chap. 4). Mindfulness-based stress reduction (MBSR) is one of the more well-known programs, which initially was developed for use with adults presenting with chronic pain and other chronic and stressful conditions (Kabat-Zinn et al., 1985). Since the establishment of MBSR, several mindfulness-based interventions have been developed and applied to treat a range of psychological problems among adults (Baer, 2003), including Dialectical Behavior Therapy (DBT; Linehan, 1993), Acceptance and Commitment Therapy (ACT; Hayes & Strosahl, 2004), Mindfulness-based Cognitive Therapy (MBCT; Segal, Williams, & Teasdale, 2002), and Mindfulness-based Relapse Prevention (MBRP; Witkiewitz, Marlatt, & Walker, 2005). The common thread among these other approaches is a dual emphasis on mindfulness and behavioral change as core processes to alleviate suffering. In this chapter, we will review the literature pertaining to coping with stressors among African American youth, the role of stress exposure/experience in regulation and coping, and highlight the role of mindfulness-based therapies to improve self-regulation among African American youth.

Role of Stress Exposure in African American Youth

Stressors experienced in childhood and adolescence have been linked to a number of negative mental health outcomes, including internalizing problems, externalizing behaviors, academic difficulties, and health risk behaviors (e.g., Grant et al., 2006; Lambert, Copeland-Linder, & Ialongo, 2008). African American youth, particularly those residing in low-income neighborhoods, encounter a disproportionate share of acute and chronic stressors due to their social position in American society (Garcia Coll et al., 2008). Historical and present-day inequality faced by African Americans has resulted in disparities in exposure to stressors that impact children across a variety of domains including the home, school, and community (Garcia Coll et al., 2008).

A number of cross-ethnic comparison studies suggest that ethnic minority youth experience more stressors than their White peers (e.g., Choi, Meininger, & Roberts, 2006). African American youth are more likely than White youth to experience the death of a loved one, to have a family member who has been arrested or jailed, to have to take care of a loved one, and to be placed in a foster home (Kilmer, Cowen, Wyman, Work, & Magnus, 1998). In addition, African American youth are twice as likely as White youth to experience maltreatment according to data from Fourth National Incidence Study of Child Abuse and Neglect (Sedlack et al., 2010).

In recent years, a number of studies have examined specific domains of stressors that disproportionately affect African American youth including poverty, neighborhood disorder, community violence, and racial discrimination. Census Bureau findings indicate that, in 2012, 27.2 % of African Americans were living in poverty compared to 9.7 % of Whites (DeNavas-Walt, Proctor, & Smith, 2013). In addition, African American youth disproportionately reside in neighborhoods characterized by high levels of neighborhood disorder (Peterson & Krivo, 2005), and they rate their communities as more threatening than adolescents of other racial groups (Aneshensel & Sucoff, 1996). Neighborhood stressors may have more harmful effects than general negative life events (Scheier, Botvin, & Miller, 1999).

Violence exposure is a frequently occurring stressor for African American youth who reside in low-income communities (Sanchez, Lambert, & Cooley-Strickland, 2013). African American youth are disproportionately affected by violence as victims and witnesses. In addition, some research indicates that between 50 and 96 % of urban youth have witnessed community violence (Gorman-Smith, Henry, & Tolan, 2004). The fact that homicide is the leading cause of death for African American youth (Centers for Disease

Control and Prevention, 2012) is evidence of the pervasiveness of community violence in their lives. In addition, exposure to community violence as a victim or witness is associated with a number of adverse outcomes including posttraumatic stress symptoms, internalizing symptoms, suicidal behavior, antisocial behavior, social withdrawal, substance use, and academic problems (e.g., Gorman-Smith & Tolan, 1998). In addition, these negative mental health effects may persist over time (e.g., Lambert et al., 2008).

Experiencing racial discrimination is stressful for youth and has been associated with negative mental health outcomes (e.g., Greene, Way, & Pahl, 2006; Simons et al., 2002). African American youth are at risk for being targets of discrimination (Greene et al., 2006; Romero & Roberts, 1998) and they often report experiencing discrimination in their daily lives (e.g., Greene et al., 2006; Seaton, Caldwell, Sellers, & Jackson, 2008; Sellers, Copeland-Linder, Martin, & Lewis, 2006; Simons, Chen, Stewart, & Brody, 2003). According to data from a nationally representative sample of African American adolescents, 87 % reported experiencing at least one discriminatory incident in the past year (Seaton et al., 2008). Recent research conducted by Seaton and Douglas (2014) indicated that African American adolescents reported an average of 2.5 discriminatory events occurring daily. Simons et al. (2003) reported that 46 % of their sample of preadolescents had experienced racial slurs, 33 % had experienced some form of exclusion due to race, and 18 % reported that they had been threatened with physical harm due to race.

Thus, African American youth are at high risk for experiencing exposure to many stressors that may increase likelihood for developing emotional and behavioral problems. High rates of stressful experiences may result in the reliance on maladaptive coping and emotion regulation strategies that contribute to psychopathology and maladjustment. As reviewed, many sources of stress are difficult to change, and unlike some targets of evidence-based psychotherapy (e.g., cognitive distortions), negative thoughts associated with these stressors may be quite valid and accurately reflect genuinely negative experiences. Mindfulness-based interventions target emotional and attentional processes associated with chronic and acute stress and may therefore support the development of African American children's self-regulation in a unique way. Likewise, mindfulness-enhanced approaches to well-established, evidence-based treatments (e.g., mindfulness-based cognitive therapy, mindfulness-enhanced parent training) may provide complementary benefit. In the next section, we will review theoretical models that further detail how mindfulness-based treatments may reduce the negative effects of stress and influences on emotion regulation and coping. We will then review empirically evaluated mindfulness treatments for youth and their families, with a focus on studies that have included African American youth.

Effects of Mindfulness on Self-Regulation

Empirical interest in the potential theoretical mechanisms of mindfulness-based treatments has grown significantly since the initial introduction of mindfulness into psychotherapy over the past 2 decades. Mindfulness has been broadly theorized to improve affect regulation, a term which encompasses the processes of emotion regulation, mood regulation, and self-regulation, as well as specific strategies such as nonreactivity and acceptance (Jimenez, Niles, & Park, 2010). Similar models pose mindfulness as a catalyst for changes in various forms of self-regulation, with distal improvements hypothesized for psychological symptoms. Emotion regulation has been proposed as a fundamental component of many kinds of youth psychopathology generally (e.g., Frick & Morris, 2004) and a potential mediator of the relationship between exposure to risk and healthy developmental outcomes for African American youth specifically (Barbarin, 1993).

Multiple models have been proposed for explaining mindfulness mechanisms generally, and we will focus a selection of those theoretical models. An information-processing model has been proposed (Breslin, Zack, & McMain, 2002) that identifies several ways in which mindfulness could work by modifying attentional and emotional self-regulation processes: (1) Interrupting automatic, "mindless" habits and cognitive scripts associated with maladaptive behavior; (2) Changing an individual's relationship to his or her own memory activation (e.g., neutrally observing a memory, rather than attempting to inhibit it, or reacting emotionally in a negative way); (3) Becoming desensitized to previous emotional triggers for behavior; and (4) Developing increased attention to and awareness of one's own general cognitive and emotional processes. It has been theorized that mindfulness "may change automatic response tendencies when the patient observes, describes, and participates in emotional experiences without acting on them" (Lynch, Chapman, Rosenthal, Kuo, & Linehan, 2006, p. 465). Indeed, the proposed mechanism of therapeutic change in DBT is the reduction of ineffective action tendencies that are linked with emotion dysregulation (Lynch et al., 2006). Similarly, the reduction of psychological inflexibility and experiential avoidance within ACT theory are proposed to allow individuals to observe their psychological experiences instead of attempting to control them (Hayes, Strosahl, & Wilson, 1999). This psychological shift may promote a number of associated cognitive, emotional, and behavioral changes, including reduced belief in automatic thoughts, increased flexibility of attention, improved intentional shifts in attention, reduced emotional intensity/duration and secondary emotional responses, enhanced ability for learning, and enhanced treatment motivation.

Mindfulness training is also theorized to result in improved self-regulation that emerges from increased acceptance and self-awareness, such as noticing unpleasant emotions and distress as experiences that can be accepted, rather than impulsively reacted to, ruminated over, or chronically avoided in an ineffective manner (Baer, 2003; Kavanagh, Andrade, & May, 2004; Williams, Teasdale, Segal, & Kabat-Zinn, 2007). This enhanced acceptance of one's internal experiences is thought to lead to reduced suffering and distress in response to stress. Thus, mindfulness training may result in symptom reduction through exposure to emotional and psychological sensations, changes in attitude/cognitive stance, greater use of self-regulation and coping skills, and acceptance of psychological experiences (Baer, 2003).

In addition, behavioral and learning theory may also explain the potential utility of mindfulness-based interventions for working with African American youth. First, mindfulness-based interventions may reduce emotion regulation problems that precipitate and follow social/interpersonal conflicts and stressors that often function as triggers for exacerbations in managing chronic stress. Second, mindfulness may also reduce high arousal and emotional reactivity from which individuals may seek immediate relief, thus counteracting the negative reinforcement value that maladaptive coping efforts may have previously provided (e.g., aggression, avoidance). Thus, in many ways, mindfulness may address maladaptive homeostasis, self-soothing, and avoidant responses that may accompany many forms of psychological disorders, including anxiety, depression, inattention/hyperactivity disorder, and oppositional behavior.

In summary, various theoretical models have offered philosophically complementary explanations for the potential benefits afforded by mindfulness training. These models may be relevant for working with African American youth in dealing with the effects of exposure to stress as well as for reducing multiple forms of psychopathology (e.g., anxiety, depression, aggression). As noted in a review (Baer, 2003), mindfulness-based interventions emphasize exposure to internal experiences, cognitive changes in one's relationship to internal events, self-regulation, acceptance of experiences, and relaxation rather than autonomic arousal. In short, mindfulness approaches emphasize approaching and accepting one's experiences, rather than chronic efforts in avoiding uncomfortable or undesired experiences (Hayes & Strosahl, 2004). While this stance of approach is similar to many cognitive-behavioral treatments, it is important to note that mindfulness-based therapies focus on a change in the contextual relationship between a person and his/her experiences, whereas CBT approaches actively change the content of those experiences (e.g., thoughts, behaviors). Our theoretical model

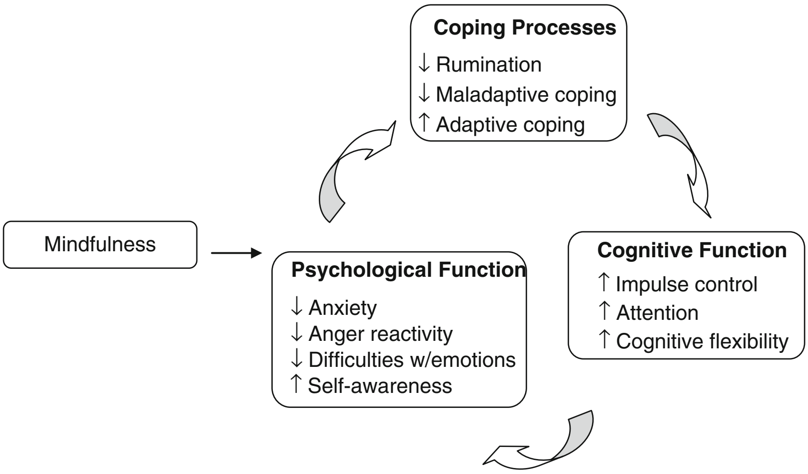

Fig. 6.1 Mindfulness and improved self-regulation

(Fig. 6.1) reflects the range of potential changes associated with mindfulness, including improved coping, positive cognitive changes, and improved psychological self-regulatory abilities.

Practical Application: A Sample Mindfulness Meditation Practice

Many clinicians who teach mindfulness techniques across a variety of empirically supported approaches, such as MBSR, ACT, DBT, and MBCT, emphasize the need for the practitioner to gain personal experience with mindfulness meditation. Experience in mindfulness then enables the practitioner to help children and adolescents learn through their own experiences what mindfulness is and is not (e.g., auto-pilot), and how mindfulness techniques can be used to cope with a range of stressors. Providing a definition of what mindfulness is can be a helpful first step. In our work, we often use Jon Kabat-Zinn's classic conceptualization, in which mindfulness is simply directing attention in a particular way: on purpose, in the present moment, and nonjudgmentally. By contrast, mindfulness is the opposite of mindlessness or being on "auto-pilot" (Kabat-Zinn, 1994).

Mindfulness training on one's breathing is a traditional starting point in meditation. The following text is a sample script for a brief meditation on one's breath:

1. *Sit in a comfortable position in your chair. Sit upright, with your back straight* (but not uncomfortably so) *and your feet flat on the floor.*
2. *Gently bring your attention to your breath. There's no need to change how you are breathing in any way, but just notice each breath as you inhale and exhale.*
3. *Be aware of the sensations in your body as you breathe; notice the sensation of the in-breath as it enters your nose, throat, lungs; notice your out-breath as you exhale.*
4. *Observe what parts of your body move as you breathe. Your shoulders, chest, stomach may move. Perhaps other parts of your body move too—such as your arms and feet.*
5. *If other thoughts come in to your mind as you practice, acknowledge them and then gently shift your awareness back to your breathing again. It is okay to notice these other thoughts; let them go and return your attention to your in-breath and out-breath.*
6. *Continue for two to three minutes or more, as you like.*
7. AFTER: *What did you notice? What was it like?*

Although this is a simple mindfulness exercise, it may not be easy to maintain focus on the breath; this is common and reassurance that lots of practice is needed can be given. Also, it allows what may be a very different experience than a typical moment spent worrying about whether an uncomfortable feeling will not end, or ruminating about how one is frequently bothered by an unwanted experience (e.g., itching in atopic dermatitis; abdominal upset/pain). This simple exercise can be modified and expanded in a number of ways. For example, as one breathes in, a simple phrase to describe that action could be added ("I am breathing in my breath, I am breathing out my breath"). Likewise, a general coping statement could be added (e.g., "I breathe in peace, I breathe out stress"), or an observation of undesired sensations could be noticed and described nonjudgmentally (e.g., "I notice an itch on my arm"). As Thich Nhat Hanh writes in *The Miracle of Mindfulness*, "Mindfulness frees us from forgetfulness…and enables us to live" (Hanh, 1975, p. 15). Since enhancing awareness of what is happening in the present moment is the intention of mindfulness instruction, discussion of what *actually* happens during such an exercise provides an opportunity for the patient to gain understanding of how his or her mind "works." Practice of such techniques allows for more facility in that awareness and greater ability to manage one's attention.

Repeated over days and weeks, the goal of mindfulness training is to help individuals stay in their present experience, whether enjoyable or uncomfortable, and see things nonjudgmentally and clearly as they are. Seeing one's experience clearly means not catastrophizing (i.e., seeing things worse than they are) and not denying (i.e., not ignoring when things are truly undesirable). Rather, purposefully staying in the moment, with full, clear attention and without judgment, can lead to many positive outcomes for psychological and physical health. Mindfulness instruction provides simple techniques to "check in" with oneself to assess what is actually happening in the present moment. This "checking in" often leads to enhanced perspective-taking (Kerrigan et al., 2011; Shapiro, Carlson, Astin, & Freedman, 2006; Sibinga et al., 2008) and enhanced self-regulation (Sibinga, Perry-Parrish, Thorpe, Mika, & Ellen, 2014). While mindfulness techniques can enhance individuals' abilities to see their present-moment lives more clearly, it is typically believed that benefits will be sustained through regular practice.

Clinical Examples

To help illustrate how mindfulness approaches may be used in clinical practice, we present two examples of clinical cases that represent how mindfulness may be used to augment existing evidence-based treatments for working with African American youth and their families. The vignettes will represent the range of potential applications: working with youth individually to reduce psychopathology (e.g., anxiety) and working with parents to improve child behavioral functioning.

Anxiety Anxiety is a common childhood disorder, and many youth experience upsetting somatic symptoms as part of anxiety. Some children develop fears of their own somatic sensations, which then become a focus of experiential avoidance. Consider adolescents who present with anxiety and somatic complaints. Adolescents may report a history of significant stress, declining functioning (e.g., missed school, social isolation), and negative changes in routines (e.g., irregular sleep schedule). After ruling out potential medical and physical explanations, many youth benefit from cognitive-behavioral treatments to reduce avoidance and improve functioning associated with anxiety. Mindfulness training could be used to focus on observing thoughts and working to change one's relationship to those thoughts. For example, youth can practice noticing their thoughts that predicted the worst possible outcome (i.e., throwing up) and consciously attending to actual experience in those moments that demonstrated the opposite (i.e., not throwing up). Over time, youth are increasingly able to accept thoughts as just that—thoughts—that do not necessarily reflect reality. With increasing experience, a mindful stance toward thoughts may allow adolescents to see them as thoughts rather than facts. These mindfulness exercises may help teens reduce anxiety and pain complaints and resume more normative functioning.

Behavioral Problems For children with behavior problems, somatic complaints, and even for healthy children, clinicians working with children have long recognized the need to encourage parents to nurture positive relationships with their children through positive parental attention. The recommendation for regular, recurrent "special time" or child-directed time has been a popular approach to this need (e.g., McMahon & Forehand, 2003; McNeil & Hembree-Kigin, 2011). The practice of mindfulness in its fullest expression means living and attending to the present moment at all times, with implications for how we manage our lives and our relationships (Kabat-Zinn, 2005). Although not typically conceptualized as a formal mindfulness technique, one-on-one parent–child time is intended to increase awareness of the present-moment experience of the parent–child dyad, and can be seen as supporting mindfulness in the parent–child relationship, particularly for the parent. "Special time" is time when child and parent spend time together that is free from other tasks or interruptions such as televisions, cell phones, etc. (Howard, 2002); ideally, the time is fundamentally about being together with a present-focused attitude. Often, it is recommended that the child choose the activity for the time together, that the parent brings an open and positive attitude, and that the parent be in tune with their child for that period of time, however briefly. Thus, the parent is instructed to be aware, open, positive, and attentive to the experience of being with their child as it unfolds in the present; the parent is instructed to be mindful. This mindful attending to one's child is a critical part of existing behavioral parent training programs, and researchers and clinicians are increasingly encouraging mindfulness-based parent programs to address childhood disruptive behavior (Dumas, 2005). A mindfulness-based model of parenting focuses on changing maladaptive behavior that is largely automatic and difficult to change because parents are generally unaware of these transactions (or ways of modifying them) in the moment. Mindfulness in parent training could target nonjudgmental listening, maintaining distance from upsetting emotions, and creating action plans that are consistent with parenting goals (Dumas, 2005). Consistent with this notion, emerging empirical work on this topic would suggest that maternal mindfulness is related to parenting practices among African American families (Parent et al., 2014).

In the examples described here, mindfulness techniques could be added to an array of cognitive-behavioral strategies for supporting improvement in functioning. While the concept of mindfulness may seem simple, its practice and the ability to provide quality mindfulness instruction are far from easy.

Mindfulness-Based Therapies: Empirical Evidence

Mindfulness-based interventions represent a third wave of psychotherapies rooted firmly in the empirically supported therapy movement. We will be focusing on the treatment models that emerged from two major traditions: mindfulness meditation, based on ancient contemplative practices, to reduce stress in medical populations on the one hand, and behavioral and cognitive-behavioral therapies to treat psychiatric disorders on the other. MBSR was developed in 1979 to reduce stress among adults with chronic health conditions (for detailed description, see Kabat-Zinn, 1990). In particular, adults with chronic medical conditions were referred to the MBSR clinic at the University of Massachusetts Medical Center to reduce stress and improve functioning. The structure of MBSR programs is an 8–10 week program of 2 h per session of groups of participants, with an expectation that participants will commit to regular daily practice during program participation (Kabat-Zinn, 1990). MBSR instructional content focuses on mindfulness meditation practice, self-awareness during yoga practice, and use of mindfulness practices during stressful moments.

Early studies examined adults with chronic pain (Kabat-Zinn et al., 1985), psoriasis (Kabat-Zinn et al., 1998), and hypertension (Schneider et al., 1995), with empirical evidence demonstrating significant reductions in psychological symptoms (e.g., present-moment pain, mood symptoms; Kabat-Zinn et al., 1985); increased rate of resolution of psoriatic lesions (Kabat-Zinn et al., 1998), and reduced systolic and diastolic blood pressure among older African American adults with mild hypertension (Schneider et al., 1995). Later studies have demonstrated improved quality of life, reduced physical symptoms, and improved social functioning among samples of heterogeneous adult medical patients (10 % of sample was African American; Reibel, Greeson, George, Brainard, & Rosenzweig, 2001) and improved glycemic regulation among a small group of adults with type II diabetes (approximately 30 % African American; Rosenzweig et al., 2007).

Since the introduction of MBSR in 1979, several other psychological treatments emphasizing mindfulness and mindful acceptance have emerged within the behavioral and cognitive-behavioral movement. A common theme among these third-wave behavioral approaches was a new focus and legitimation of affect and emotional experiences as a primary target for treatment. For example, DBT incorporated mindfulness and acceptance practices to address severe emotional dysregulation among individuals with borderline personality disorder (Linehan, 1993). ACT focused on the importance of the function and context of experiential avoidance in understanding and changing behavior as well as emotions (Hayes & Wilson, 1994). Mindfulness-based cognitive therapy (MBCT; Teasdale, Segal, & Williams, 1995) modified cognitive therapy as applied to depression in an effort to reduce risk for depressive episodes by targeting processes involved in maladaptive mood regulation. In addition to focusing on affect, these mindfulness-based approaches share another common link that distinguishes them from other cognitive-behavioral treatments. In CBT approaches, the clinician helps an individual change the *content* of one's thoughts (e.g., cognitive restructuring) and behavior (e.g., activation). In contrast, mindfulness-based approaches focus on changing the *context* in which those internal experiences occur. Thoughts and feelings are cast as experiences or events rather than facts (Teasdale et al., 2000). Thus, these treatments based on mindfulness actively balance desire for changed experiences on one hand and mindful acceptance of the present moment on the other.

Despite decades of research in adults, studies of mindfulness-based interventions for use with children and youth are still emerging, but few studies focus on African American youth and their families. However, this small literature provides preliminary evidence that mindfulness-based treatments are feasible and beneficial for use in pediatric populations (for reviews, see Meiklejohn et al., 2012; Sibinga & Kemper, 2010) and well accepted by African American youth (e.g., Sibinga et al., 2013, 2014). A number of mindfulness programs have been adapted for use with children and youth. Adaptations typically involve shortening the formal mindfulness techniques when they are introduced, with a gradual increase in duration as the course progresses; clarifying and concretizing language used for instruction; and providing age-appropriate mindfulness activities (e.g., Sibinga et al., 2011). Adaptations specifically for African American populations have noted the need for cultural sensitivity to ensure relevance (e.g., Woods-Giscombé & Gaylord, 2014). For example, in our own studies and clinical work, we have found that many African American youth do not identify themselves as "stressed" despite describing experiences with ongoing stressors (e.g., financial disadvantage, racial tension, community violence); indeed, terms associated with stress may be interpreted as reflecting personal shortcomings or lack of ability to manage one's experiences.

A small feasibility trial of mindfulness-based cognitive therapy for children (MBCT-C) found support for acceptability and reduction of internalizing (e.g., anxiety, depression) and externalizing symptoms (e.g., disruptive behavior) among a non-referred sample of preadolescents (Lee, Semple, Rosa, & Miller, 2008). Another randomized trial of MBCT-C recruited a predominantly ethnic minority sample (25 % African American) and found reductions in attention problems (Semple, Lee, Rosa, & Miller, 2010). The authors also found a strong association between attention problems and behavior problems and speculated that MBCT-C could help promote improved behavioral functioning by reducing inattention (Semple et al., 2010). Studies of MBSR for youth recruited from an urban outpatient primary care clinic (100 % African American) have shown program acceptability, feasibility, and benefit related to improved relationships and coping, and reductions in conflict engagement, anxiety, and stress (Kerrigan et al., 2011; Sibinga et al., 2008, 2011). In African American high school students, mindfulness instruction led to reductions in elevated blood pressure (Barnes, Treiber, & Johnson, 2004). Additionally, mindfulness instruction (with age-appropriate adaptations, such as belly breathing, focusing on breath, and the use of "mind jars") has been studied in younger students, showing benefits in attention and executive function (Flook et al., 2010; Lee et al., 2008; Semple, Reid, & Miller, 2005).

Several studies have examined MBSR with African American youth. A small, randomized control trial of MBSR for urban youth ages 13–21 (all African American) recruited from an outpatient pediatric primary care clinic demonstrated that MBSR could be feasibly and acceptably adapted for African American youth (Sibinga et al., 2014). Qualitative data suggested that African American youth from the MBSR program perceived improved self-regulation following instruction in mindfulness, including increased feelings of calm, self-awareness, and conflict avoidance, compared with youth in the active control program. Another small randomized control trial of MBSR compared with an active control program focused on boys in an urban school setting (95 % African American) and documented decreased anxiety and rumination, with a trend for reduced negative coping and possible attenuation of cortisol response over the academic year (Sibinga et al., 2013).

A small randomized controlled trial of HIV-positive, predominantly African American youth found improvements in both self-regulation and physiological outcomes (Webb, Ghazarian, Perry-Parrish, Ellen, & Sibinga, in preparation). Compared with participants in a health education program, youth aged 14–22 years old, who participated in the clinic-based MBSR program had improved mindfulness, life satisfaction, and problem-solving coping skills, as well as a decrease in aggression. Youth in this group also took more time to dwell in positive emotions when they were given an emotion Stroop task. Moreover, MBSR participants were more likely to have a decrease in their HIV viral load compared to the control group (an age-appropriate general health course; Webb et al., in preparation). These preliminary studies are small but importantly demonstrate that these emerging mindfulness-based psychotherapies can be successfully adapted for use with African American youth.

A larger randomized controlled trial compared a school-based MBSR program with an active control program in two public schools ($n=299$) consisting of 99 % African American youth. This trial showed that MBSR participants had statistically significant reductions in symptoms of depression, negative coping, negative affect, somatization, self-hostility, post-traumatic stress symptoms (depressive and re-experiencing domains), and increased scores on standardized reading tests (Sibinga, Webb, Ghazarian, & Ellen, in preparation).

Other trials of MBSR with primarily White samples are promising as well. A randomized trial of MBSR compared with usual care for adolescents (2 % African American) in outpatient psychiatric treatment showed significant reductions in anxiety and depression and improvements in global psychiatric functioning (Biegel, Brown, Shapiro, & Schubert, 2009). In a study of substance-abusing adolescents (4 % African American; Bootzin & Stevens, 2005), MBSR was well tolerated and accepted and seemed to effectively complement other therapeutic components (sleep hygiene, stimulus control, and cognitive therapy) in reducing sleep problems. Due to the unbalanced group sizes, between-group differences could not be examined, leaving a gap in our knowledge regarding how African

American youth may respond differentially to mindfulness interventions.

Beyond clinic-based evaluations of mindfulness, there are also school-based models for teaching mindfulness to school age youth. One study examined the effects of a teacher-implemented 6-week mindfulness intervention in a private school of predominantly White youth (Britton et al., 2014). This intervention was provided by a history teacher during class, and the materials were based on Integrative Contemplative Pedagogy with three mindfulness components: breath awareness, awareness of thoughts, feelings, and sensations, and body sweeps. Results indicated significant decreases in clinical symptoms from baseline to follow-up for the both meditating and the non-meditating control group; in contrast, unique effects in decreased self-harm tendencies were observed for the mindfulness condition only (Britton et al., 2014).

Another examination used the *Mindful Schools* curriculum in an elementary school with ethnic minority students in one of the largest evaluations of mindfulness instruction for youth ($n = 409$; 95 % ethnic minority; 28 % African American) at two intensity levels; the first group received 15-minute sessions three times per week for 5 weeks, and the second group also received a 15-minute weekly session for an additional 7 weeks, for a total of 12 weeks (Black & Fernando, 2014). The *Mindful Schools* program includes training in attention to breath, body awareness, emotion knowledge, kindness meditations, and mindful activities (e.g., eating a raisin, walking meditation). This naturalistic field evaluation design suggested that students across both groups improved on teacher ratings of behavior, including improved attention, self-control, participation, and respect for others (Black & Fernando, 2014). These results are promising, yet both studies denote the need for ongoing studies that adhere to rigorous study design to enhance the methodological evaluation of mindfulness instruction for youth (e.g., randomization, active control arm, raters blind to assignment).

DBT is a cognitive-behavioral therapy that incorporates mindfulness to treat individuals with emotional dysregulation. As detailed in Chap. 5, DBT involves four major treatment modules: mindfulness; distress tolerance (e.g., self-soothing, radical acceptance); emotion regulation; and interpersonal effectiveness (e.g., communication, social goals). DBT has been modified for use with adolescents (DBT-A) to include an emphasis on improving parent–child interactions. Among adolescents (43 % African American) with oppositional defiant disorder, 16 weeks of DBT-A skills training was shown to reduce self- and parent-reported internalizing and externalizing symptoms (Nelson-Gray et al., 2006).

A year-long trial of DBT-A involving family skills training and individual therapy in a small sample of adolescents (10 % African American) with bipolar disorder demonstrated feasibility and acceptability of the treatment, as well as indicated significant improvements in feelings of suicidality, self-harm, emotional dysregulation, and depressive symptoms (Goldstein, Axelson, Birmaher, & Brent, 2007). DBT-A was well received among adolescents with severe emotional dysregulation (e.g., significant self-harming behavior), with mindfulness and distress tolerance skills were rated as particularly helpful components of the intervention by adolescents (33 % African American; Miller, Wyman, Huppert, Glassman, & Rathus, 2000).

DBT-A has been shown to reduce behavior problems among incarcerated adolescent females with mental health problems, the majority also presenting with comorbid substance abuse (23 % African American; Trupin, Stewart, Beach, & Boesky, 2002). Implementation of DBT-A resulted in decreased premature terminations from residential treatment facilities, due to self-harm and psychiatric hospitalization; it also reduced the number of days spent in psychiatric hospitals among a sample of predominantly White adolescent young women (Sunseri, 2004).

In addition to interventions that provide individual or group-based treatment to target individuals, there is also a growing body of mindfulness-based approaches that target parents of youth (e.g., Coatsworth et al., 2015). Similar to potential mechanisms of individually based approaches, mindfulness-based parenting programs theoretically reduce maladaptive response tendencies. However, rather than working directly with youth, parent programs would instead focus on changing parenting practices to improve child behavior. Many families with disruptive children display evidence of overlearned, habitual response that sustain children's behavioral difficulties (Dumas, 2005), a pattern that may reflect mindlessness or a lack of attention to the role that parent–child interactions play. Mindfulness-based parent training was proposed as a potential intervention to augment and enhance traditional behavioral methods for improving parent–child interactions and reducing child behavioral difficulties.

One early study investigated mindfulness instruction with a small cohort of four African American mothers and their young children (ages 4–6 years old) with developmental disabilities (Singh et al., 2007). Mothers received individual instruction in mindfulness over the course of 12 sessions; course content focused on individual mindfulness practices as well as meditation methods to guide them in practicing mindfulness when interacting with their children. Following this treatment, children's aggressive behavior decreased and social skills increased (Singh et al., 2007).

A larger study ($n=432$; 15 % African American, 16 % other ethnic minorities) focused on youth in middle school in integrated mindfulness practices into a well-established parenting program (Strengthening Families; Coatsworth et al., 2015). Parents and youth participated in seven 2-hour weekly group sessions; parents and youth met separately for one hour and then together for the second hour. Results indicated that this mindfulness-enhanced parent training program was as effective as standard parent training in improving parent–youth relationship quality and improving youth behavior management (Coatsworth et al., 2015). There were some trends that suggested that fathers in particular responded well to the mindfulness-enhanced treatment; for example, youth reported that fathers who received mindfulness instruction displayed a better approach to emotions and were more supportive and understanding.

In summary, evidence suggests that mindfulness-based interventions are beneficial for African American children and adolescents to enhance their self-regulation and coping, which are aspects central to the management of psychological symptoms associated with stress.

Recommendations for Future Research and Clinical Care

Mindfulness meditation instruction has been shown to improve mental health and quality of life outcomes. Mindfulness instruction leads to reduced stress and enhanced self-regulation, which can be thought of as the intertwined processes of psychological functioning, cognitive functioning, and coping (Fig. 6.1). In particular, mindfulness has been found to reduce psychological symptoms, such as anxiety, and improve emotion regulation; improve attention and the ability to focus; and reduce maladaptive coping and rumination. These outcomes have been associated with increased calm, improved relationships, and reduced stress and anxiety. There is a great deal of enthusiasm among many who study mindfulness instruction for youth and are hopeful for the benefits that mindfulness practices may yield. However, as noted above, there is still a need for rigorous scientific evaluation of mindfulness interventions, among youth as well as among African American youth in particular.

There are several promising directions for the future of mindfulness-based interventions for African American youth. Chief among the possibilities is the continued goal of improving the methods for evaluating mindfulness instructions to ensure that African American youth have access to optimal clinical care that is evidence-based. Mindfulness interventions need to demonstrate the same level of clinical and psychological value as other evidence-based treatments, and dissemination of these interventions needs to ensure fidelity. As with other efforts to disseminate treatments that have demonstrated efficacy, it will be crucial to determine how mindfulness-based treatment can survive the transfer from optimal delivery in rigorous studies to more typical settings of care, such as community mental health centers.

A second goal is continue to expand the social contexts in which mindfulness instruction is evaluated. In this chapter, we reviewed clinic-based and school-based instruction, as well as interventions targeting parents of youth. Other exciting avenues for future research could target other important social figures in the lives of African American youth, including teachers. There are several programs under investigation that provide mindfulness instruction to teachers (Frank, Jennings, & Greenberg, 2013); this model may provide sustainability (e.g., Jennings, Frank, Snowberg, Coccia, & Greenberg, 2013). Finally, future research needs to continue to probe for the potential mechanisms of change associated with mindfulness instruction. Assuming that mindfulness instruction does lead to positive changes for African American youth, it will be important to identify which emotional and psychological processes are changed, and how they are improved.

Mindfulness techniques represent a group of complementary treatments that are beneficial for children presenting with a range of behavioral, emotional, and somatic symptoms, as mindfulness instruction supports a positive change in the relationship to one's experiences. Enhancing the mindful awareness of the present-moment experience of the bodily sensation or symptom itself, as well as the thoughts and emotions that may be associated with the symptom, allows the individual to recognize the sensation itself. In turn, individuals may become less attached to the associated thoughts and emotions, which enables more opportunities for flexible responding to stress and psychological symptoms. With practice, the sensation itself becomes more manageable and the child becomes less limited by it. When considering integrating mindfulness techniques into the care of African American youth and their parents, it is essential to identify mindfulness instructors with rigorous training and excellent experience, and ongoing support for their practice. In the right hands, mindfulness meditation instruction has extraordinary potential for benefit.

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Inpatient Psychiatric Hospitalization

7

Kenneth M. Rogers and Cheryl S. Al-Mateen

Introduction

The prevalence of psychiatric illness among African Americans is increasing (Anderson-Butcher & Ashton, 2004; Barnes, 2004). Epidemiological data suggest that the prevalence of psychiatric disorders increased significantly in adolescents between 1996 and 2004 (Blader & Carlson, 2007). There is a marked disparity in African American youth utilization of mental health services (U.S. Department of Health and Human Services, USDHHS, 2001). While it has been estimated that the prevalence of all child and adolescent psychiatric disorders may be as high as 40 % (Merikangas et al., 2010), only about 20 % of children who suffer from mental illness receive treatment (Barksdale, Azur, & Leaf, 2010; Katoaka, Zhang, & Wells, 2002). With this large unmet mental health need among all youth (McMillen et al., 2004), the lack of treatment has been particularly acute for African American youth, who are more likely to suffer from untreated mental health problems and use fewer mental health services than their Caucasian counterparts (Gonzalez, 2005; Rogers, Pumariega, Atkins, & Cuffe, 2006). The number of youth who receive inadequate treatment is higher in African Americans (Breland-Noble, 2004). Yet, the number of youth relegated to inpatient treatment is also higher in African Americans (Lapointe, Garcia, Taubert, & Sleet, 2010).

Utilization of Inpatient Treatment

Mental health treatment is provided to children and adolescents along a continuum of care ranging from acute inpatient treatment, which is the most intensive and restrictive, to outpatient clinic or office visits which can range in frequency from once every several months to several times weekly. Typically, on an inpatient service, the child is evaluated and treated by members of a multidisciplinary team including daily sessions with a psychiatrist, nursing staff, and additional services including clinical pharmacy, psychology, social work, occupational, recreational and creative arts therapies, and education. Length of stay may be as short as a few days to manage a crisis situation. Children can be admitted either to a general hospital with a psychiatric unit, or to a stand-alone psychiatric hospital.

K.M. Rogers (✉)
Department of Psychiatry, Greenville Health System/
University of South Carolina School of Medicine-
Greenville, 701 Grove Road, Greenville,
SC 29605, USA
e-mail: krogers@ghs.org

C.S. Al-Mateen
Department of Psychiatry, Virginia Treatment Center
for Children, Virginia Commonwealth University
Medical Center, P. O. Box 980489,
Richmond, VA 23298, USA

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Residential treatment is a less intensive level of care, which may be a longer term (weeks or months) stay on a more campus-like setting. Referral to inpatient psychiatric treatment can come through a hospital emergency department, the crisis service of community mental health, the juvenile justice system, through transfer from a pediatric service in the hospital, an outpatient mental health/primary care provider, or parent. There are several well-established criteria for admitting a youth into inpatient treatment: (1) danger of harm to self; (2) danger of harm to others; (3) safety issues; (4) problems that could not be adequately addressed in a less restrictive setting; and (5) issues of diagnostic uncertainty requiring testing that cannot be easily obtained outside of a hospital setting. The two most common reasons for psychiatric admission are aggression and suicidality (Lapointe et al., 2010).

Inpatient services provide the most intensive care for youth with severe mental health disturbances. Ideally, children and adolescents should be treated in a "less restrictive, community-based setting…[with] services…coordinated and integrated around the needs of each individual…" (Pottick, Hansell, Gutterman, & White, 1995, p. 425).

Studies are mixed regarding utilization patterns of inpatient services among African American youth. Earlier studies suggested that African American youth underutilize inpatient services and all other levels of care, including outpatient and community-based services (USDHHS, 2001). This underutilization was reported even when diagnosis and clinical measures have shown that services are indicated and has been characterized as "unmet need" (Katoaka et al., 2002; President's New Freedom Commission, 2003). Recent studies have reported increased use of inpatient care (Lapointe et al., 2010). Adult African American patients are also overrepresented in psychiatric inpatient treatment centers (Judge, Estroff, Perkins, & Penn, 2008). Conclusions are elusive. Many of the inpatient utilization studies do not include psychiatric diagnosis and have limited generalizability. Study samples are rarely national. In addition, few studies are recent and may not represent the current role of inpatient treatment in the mental health system. Treatment objectives have changed from long-term therapy to short-term crisis stabilization (Snowden, Hastings, & Alvidrez, 2009).

The existence of ethnic and racial disparities for African Americans in the use of mental health services and treatment has been noted in the literature; in short, African American youth and their families are less likely to seek and use mental health treatment (Barksdale et al. 2010; Breland-Noble, 2004; Garland et al., 2000; Guevara, Mandell, Rostain, Zhao, & Hadley, 2006; Stewart, Simmons, & Habibpour, 2012). Eighty percent of Black youth had unmet need for mental health services, compared to 75 % of children overall and 72 % of white children (Katoaka et al., 2002). Furthermore, if treatment is utilized, this ethnic group tends to have a negative experience and a shorter period of treatment (Cuffe, Waller, Cuccaro, Pumariega, & Garrison, 1996; Guevara et al., 2006).

The use of inpatient psychiatric hospitalization to treat children and adolescents has come under increased scrutiny in recent years (Costello, Egger, & Angold, 2005). Much of this analysis has centered on several issues, including (1) the violation of the principle of treating youth in the least restrictive setting (Rey & Birmaher, 2009), (2) the increased cost of treating youth in these settings, and (3) the possible inappropriate use of inpatient treatment among poor and minority youth (Yeh et al., 2002). In the quest to identify the most appropriate setting for the treatment of youth, the question arises as to whether too many are being placed in restrictive settings without adequate justification (Freeman, Pathare, Drew, Funk, & Saraceno, 2005; Tuma, 1989).

Many third party payers have attempted to limit the use of inpatient services in favor of less expensive services, such as outpatient care and school-based services. While these changes have yielded inpatient cost savings, they have done little to decrease the overall cost of mental health care for youth (U.S. Public Health Service, 2000). Some studies have shown that decreasing the use of inpatient care for youth with severe mental illness has increased the overall cost of care (Harpaz-Rotem, Leslie, Martin, & Rosenheck, 2005; Martin & Leslie, 2003). Between 1996 and 2004, there was a 40 % increase in the number of youth referred for psychiatric inpatient treatment nationwide (Blader, 2006). In fact, approximately 10 % of pediatric hospitalizations in the USA were for psychiatric inpatient treatment (Bardach et al., 2014). The Children's Health Insurance Program (CHIP) and the Affordable Care Act provided more children access to services; however, access remains problematic in many poor communities (Associated Press, 2009; Koh & Sebelius, 2010). The impact of these programs on children of color is unlikely to be fully realized for years.

Help-Seeking Behaviors

A complex interaction of individual, familial, and community factors results in help-seeking for mental illness (see Fig. 7.1). This help-seeking is impacted by societal factors that may result in mental healthcare disparities (see Fig. 7.2). Factors include the individual biopsychosocial characteristics that predispose the patient to mental illness or affect recognition and help-seeking regarding the symptoms that are present. An example is a genetic risk for illnesses such as attention deficit hyperactivity disorder, depression, bipolar disorder, or schizophrenia. Some societal factors may exacerbate existing mental illness, and some patient related factors may delay treatment seeking, resulting in more severe symptoms at presentation for treatment, thus necessitating more intensive treatment and interventions (Breland-Noble, 2004; Kilbourne, Switzer, Hyman, Crowley-Matoka, & Fine, 2006; Pachter & Coll, 2009).

A sense of stigma regarding mental illness, which can result in denial of the seriousness of presenting symptoms can impact help-seeking. Such denial may result in a delay of one or two years in seeking initial treatment for psychotic disorders (Merritt-Davis & Keshavan, 2006). This results in increased need for hospitalization and longer lengths of stay for stabilization as well as a greater likelihood of poorer outcomes. In African Americans, treatment is often sought from primary care providers and may result in a delay in specialty treatment particularly if symptoms are

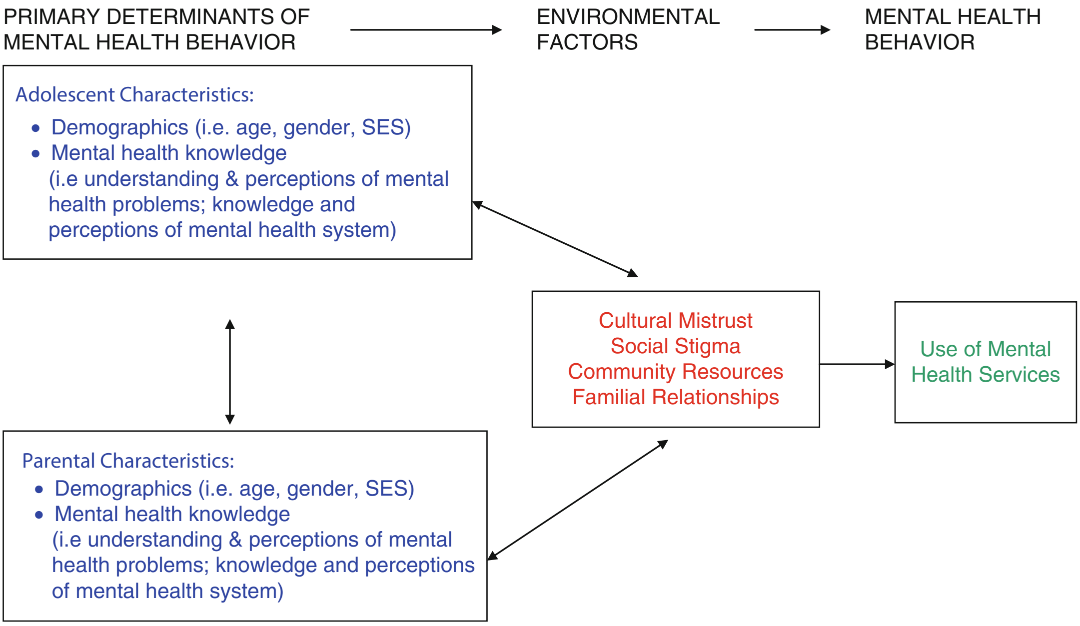

Fig. 7.1 Breland-Noble model of pathways to psychiatric clinical care for black adolescents with mental illness

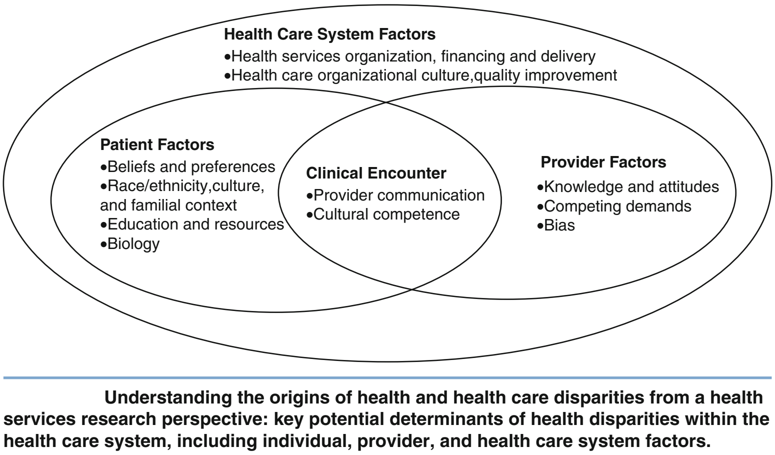

Fig. 7.2 Adapted from: Kilbourne et al. (2006, p. 2116); cited with permission

subtle or if early signs of psychosis are misinterpreted as signs of depression, low motivation, or reaction to relationship stress (Compton, Kaslow, & Walker, 2004; Zimmerman, 2005). Some primary care providers may feel uncomfortable with managing psychiatric disorders (Geller, 1999).

Cultural mistrust of the mental health system can be seen when a parent feels "that healthcare professionals cannot and will not accurately diagnose their health problems, which necessitates vigilance toward more proactive and aggressive interactions with health professionals to secure adequate care" for a child (Breland-Noble, 2004, p. 536). If a parent believes that meeting with a school social worker as part of individualized education plan (IEP) testing for educational purposes will lead to Department of Social Services intervention and refuses this intervention, this may negatively impact educational services as well as a potential referral for mental health treatment (Breland-Noble, 2004).

It is useful to have some understanding of heterogeneity of the Black population in the USA (Snowden et al., 2009). The Black population in the USA is composed of individuals whose ancestry is from many different areas of the world including the Caribbean, Africa, and Latin America (Jackson et al., 2004). Although there are many similarities, there is also considerable ethnic variation with descendants from the Caribbean constituting as much as 10 % of the African American population in the USA (Grieco et al., 2012; Williams, Lavizzo-Mourey, & Warren, 1994). The level of acculturation differs substantially as about 25 % migrated to the USA before 1980 while 30 % have migrated to the USA since 2000 (Grieco et al., 2012). There are no studies specifically comparing the differences in populations from Africa, the Caribbean, and Latin America; available data have shown that the psychiatric symptom presentation of adult blacks of Caribbean ancestry differs from that of African American and Caucasian American populations (Williams et al., 2007). US-born Caribbean blacks have more underutilization of treatment with higher rates of hospitalization (Snowden et al., 2009).

While African Americans are also heterogeneous from a socioeconomic perspective (DeNavas-Walt, Proctor, & U.S. Census Bureau 2014; Tatum, 1999), the psychiatric literature has generally focused on those in urban, lower socioeconomic settings (Lapointe et al., 2010). Two studies, however, did not find an impact of income or insurance on accessing care in an African American population (Alegría et al., 2002; Zimmerman, 2005). African American youth are unequally affected by racism, poor education, poverty, unemployment, and living in communities that lack adequate social, educational, and healthcare infrastructure (Clark, Anderson, Clark, & Williams, 1995; Gonzalez, 2005).

Many African American youth reside in rural areas or poor neighborhoods that are economically disadvantaged and with a paucity of mental health services (Barksdale et al., 2010; Murry, Heflinger, Suiter, & Brody, 2011). These youth and their families are disproportionately affected by poverty, racism, poor education, unemployment, and the sequelae of living in communities with significant infrastructure problems (Jellinek, Henderson, Pumariega, Rothe, & Rogers, 2009). The youth in these communities are at increased risk for violence, delinquency, juvenile justice system contact, and poor school performance (Lindsey et al., 2006; Pumariega et al., 1999). They frequently do not have available community resources to engage in outpatient, school-based, or other evidence-based treatments designed to address mental health needs of youth. Many of these youth lack health insurance and this inability to pay out-of-pocket is frequently an obstacle to receiving mental health care (Lewit, Terman, & Behrman, 1997; Pottick et al., 1995) even when mental health services are available. As a result, many of the mental health problems in this population are not addressed until the problems have become more severe or result in episodes of aggressive behavior, which often leads to inpatient treatment. If the underlying reasons for the behavior were managed earlier, use of this most intensive resource could be prevented or decreased.

Shim et al. (2014) noted the importance of social determinants at both the individual and societal/political levels in the presence of mental health disparities. The Adverse Childhood Experiences Study (Felitti et al., 1998) has identified the additive effect of experiences such as being bullied; experiencing neglect, emotional, physical, or sexual abuse; household dysfunction; parental mental illness or substance abuse; divorce; death; or criminal behavior in leading to chronic physical and mental disorders. The study has been replicated in youth and diverse populations (Mersky, Topitzes, & Reynolds, 2013; Schilling, Aseltine, & Gore, 2007). Pachter and Coll (2009) reviewed the literature and found a clear association between experiencing racism and the mental health of African American youth as early as age three. Internalizing and externalizing behaviors, lower self-esteem, and higher levels of hopelessness, tobacco and alcohol use were found (Caughy, O'Campo, & Muntaner, 2004). Studies also found that parental experiences with racism increased anxiety, depression, and substance use in the adolescent (Gibbons, Gerrard, Cleveland, Wills, & Brody, 2004). There was more perceived racism in youth from higher socioeconomic status families (Brody et al., 2006). Effects of racism could be diminished by prosocial peer support and nurturing parents (Scott & House, 2005). Shim et al. (2014) called for an understanding of these social determinants of health to improve prevention efforts by educating the patient, family, and primary care provider about factors that contribute to mental illness (see Table 7.1). Innovation with mental health policy should follow.

The Impact of Foster Care

While the numbers of children in foster care annually are decreasing (USDHHS, 2012, 2014), African American and other minority youth remain overrepresented in the foster care system. The overall number of children in foster care has decreased from 488,285 in 2007 to 402,378 in 2013. Thirty-five percent and 24 % of children in care were Black/non-Hispanic in 2003 and 2013, respectively (USDHHS, 2006, 2014). Most recently, 46 % of these children were in care for less than 12 months (USDHHS, 2014). Fifty percent of youth in foster care will have more than one placement. Twenty-five percent will have three or more placements (Forkey & Szilagyi, 2014). African American and Latino children and other children of color or those with severe behavioral/developmental disabilities are more likely to stay in care for longer periods (Forkey & Szilagyi, 2014). Many of these children are frequently removed from their homes because of abuse, abandonment, neglect, parental separation/death, or parental incarceration. Removal

Table 7.1 Factors involved in help-seeking for clinical care, adherence, and treatment (Breland-Noble, 2004; Shim et al., 2014; Work Group on Community Based Systems of Care, 2012)

Primary determinants of health	Family environment	Social determinants of health
Child/adolescent characteristics: – demographics, – genetic risk, – mental health literacy – adverse childhood experiences	– Family relationships – Familial concepts of stigma related to mental illness and treatment – Cultural mistrust	– Long-standing socio-cultural context – short-term economic contexts – disparities and cultural competency in available/involved systems of care: – primary healthcare – early childhood services – education – mental health – child welfare – juvenile justice – developmental disabilities – substance abuse treatment
Parent characteristics: – Demographics – Adverse childhood experiences – Mental health literacy		

from one's home results in significant stress which is further heightened when forced to move to one or more foster homes (Hussey & Guo, 2005; Villodas, Litrownik, Newton, & Davis, 2015).

Working with patients from foster care on an inpatient unit is frequently complicated for several reasons. There may not be a parent engaged in treatment. Obtaining an adequate history is difficult when there is no available adult with a long-term understanding of the child's issues. A patient may be placed into another home after discharge from the hospital, especially when there is no consistent adult figure in the child's life. The literature supports that each of these factors is associated with negative outcomes for children and adolescents (Persi & Sisson, 2008; USDHHS, 2012; Villodas et al., 2015).

In their review of the literature, Pecora, Jensen, Romanelli, Jackson, and Ortiz (2009) found that half of children in foster care have chronic medical problems which likely increases the occurrence of emotional problems. The use of inpatient and residential psychiatric treatment is very high for those in foster care (McMillen et al., 2004). African American children who have been in foster care present to inpatient psychiatric settings at higher rates than Caucasians from stable home settings (Baeder, 2013; Child Welfare Information Gateway, 2013). Since many poor African American youth are in foster care or other out of home placements, these youth may lack the family stability which is often protective against the negative impact of life stressors on mental health (Snowden et al., 2009; Villodas et al., 2015).

Inpatient Points of Entry

The reliance on inpatient treatment rather than outpatient services is likely influenced by the fact that many African American youth receive much of their psychiatric treatment in the emergency department related to limited utilization of outpatient care (Merritt-Davis & Keshavan, 2006). These findings are consistent with the Surgeon General's report that showed the overrepresentation of African Americans among patients receiving psychiatric inpatient treatment (USDHHS, 2001).

Many patients' first contact with the mental health system is through the emergency department (Ziegenbein, Anreis, Brüggen, Ohlmeier, & Kropp, 2006). Approximately 51 % of inpatient adolescent admissions are initiated as referrals from the emergency department (Holder, Rogers, Peterson, Blackhurst, & Shoenleben, in press). In one 10-year study of a pediatric psychiatry emergency room service, suicidality was the most common reason for inpatient psychiatric admission from the emergency department (Peterson, Zhang, Lucia, King, & Lewis, 1996). Despite the fact that suicidality is often the presenting complaint, there are a variety of psychiatric disorders that present in this manner which may include psychotic, affective, anxiety, and substance use disorders. Many youth may also become suicidal due to life stressors precipitated by conflicts with family, friends, or interpersonal difficulties in school or the community.

Recidivism

Unfortunately, 40 % of all youth who are released from inpatient care will be readmitted within a year of discharge. This is especially true for African American youth (Arnold et al., 2003; Lapointe et al., 2010; Romansky, Lyons, Lehner, & West, 2003). African American adolescents are more likely to have frequent psychiatric hospitalizations than to be engaged in less restrictive, evidence-based, outpatient treatments such as functional family therapy, multisystemic therapy, or wraparound services (Lapointe et al., 2010).

While psychiatric hospitalization may address an acute crisis, it does not necessarily lower the risk for future crises or prevent rehospitalization from occurring (Pumariega & Winters, 2003). Longitudinal data suggest that youth who are rehospitalized are more vulnerable to future impairments than those who are engaged in community-based interventions (Romansky et al., 2003).

There are a number of variables that increase the rate of rehospitalization for children and adolescents. These include family characteristics such as harsh parental discipline, poor parent–child interaction, and high parental stress (Blader, 2006). These issues are intensified for youth presenting from communities with high levels of socioeconomic disparity, resulting in an inability to access social supports that may be available in more affluent communities (Snowden et al., 2009).

Of the many demographic variables studied, age has the strongest effect on rehospitalization (Lapointe et al., 2010) and may contribute to involuntary commitment (Lindsey et al., 2010). Studies have suggested that older youth are more likely to be rehospitalized (Yamada, Korman, & Hughes, 2000). Older adolescents frequently display more defiant behavior than younger youth. These behaviors frequently contribute the rehospitalization of these youth. Admissions for defiance appear to be correlated with race.

Stigma

Inpatient psychiatric treatment is stigmatizing to patients and may increase mistrust of the mental health care system (Laresen et al., 2006). African American youth are more likely to be involuntarily committed to inpatient psychiatric treatment than their Caucasian counterparts (Muroff, Edelsohn, Joe, & Ford, 2008). A history of involuntary hospitalization contributes to African American avoidance from seeking future mental health treatments (Snowden et al., 2009). In addition, there is often a fear of being viewed negatively by peers and family as an additional barrier to psychiatric care (Barksdale et al., 2010).

Many African American parents are more likely to focus on the potential implications of externalizing symptoms as opposed to internalizing ones. These behaviors are more likely to draw the attention of school administration or law-enforcement personnel (Breland-Noble, 2004). Internalizing behaviors may be more easily tolerated (Lambert, Puig, Lyubansky, Rowan, & Winfrey, 2001). Parental beliefs about the cause of problematic behaviors are an important factor in seeking treatment. If a parent believes that externalizing behaviors are due to the child being “bad,” mental health treatment will not be sought, in favor of punishment instead.

Stigma is the ultimate barrier and is experienced by the individual, family, and community. It delays or even circumvents connecting with outpatient treatment until the child or adolescent is so ill that inpatient treatment is required (Murry et al., 2011). A study of rural African American parents found three important potential barriers to seeking mental health assistance (Murry et al., 2011). First, they often assume that there is no affordable mental health care, second, that non-African American providers could not understand their problems. Third, that professional involvement would worsen, not improve the situation.

African Americans are most likely to seek assistance for mental health concerns with their primary care provider (Murry et al., 2011) or clergy (USDHHS, 2001). Cultural mistrust may play a large part in stigma and in trusting available resources (Breland-Noble, 2004). Diagnostic bias on the part of some providers may contribute to this mistrust.

Diagnostic Bias

Potential diagnostic bias in inpatient settings has been the subject of several studies (Angold et al., 2002; Kilgus, Pumariega, & Cuffe, 1995). Once in treatment, African American youth are more likely to be diagnosed with psychotic disorders and conduct disorders while anxiety and affective disorders are underdiagnosed and undertreated (Delbello, Lopez-Larson, Soutullo, & Strakowski, 2001). For example, African Americans are more likely to be diagnosed with schizophrenia compared to whites and Latinos in similar treatment settings (Anglin & Malaspina, 2008; Mukherjee, Shukla, Woodle, Rosen, & Olarte, 1983). Racial differences in the evaluation and diagnostic process can have a significant impact on the clinical and social outcomes of African American youth (Neighbors et al., 1999).

Despite the high rates of psychosis in clinical settings, it must be noted that epidemiologic surveys in community samples using structured interviews and strict adherence to diagnostic criteria have found no ethnic differences in schizophrenia diagnoses (Kessler et al., 2005; Robins & Reiger, 1991). Several possible conclusions have been reached: (1) African Americans are more likely to describe Schneiderian first-rank symptoms as part of an affective disorder; (2) differences in presentation may account for ethnic differences in diagnosis; (3) Black patients may display psychotic symptoms during affective episodes, perhaps because of their later presentation for treatment with more severe symptomatology of an affective disorder; and (4) African American patients demonstrate higher rates of first-rank symptoms during an affective disorder compared to their white counterparts (Adebimpe, Klein, & Fried, 1981; Arnold et al., 2003; Delbello et al., 2001; Strakowski et al., 1996). Clinicians who are aware of variations in presentation and their contributions to diagnostic biases will be able to recognize when less restrictive alternatives to hospitalization are indicated.

Examples of Alternatives to Psychiatric Hospitalization

Although a young person may meet criteria for inpatient hospitalization, other less restrictive, evidence-based treatments may be more effective at addressing the underlying presentation and/or psychopathology. These interventions may not currently be used due to lack of availability, bias in referral patterns, or a belief on the part of the referral source that the treatments are inadequate (Olson et al., 2002). Longitudinal studies are needed to determine which evidence-based treatments are most effective in reducing the readmission rates of ethnic minority youth (Lapointe et al., 2010). We will review two models here.

Functional Family Therapy (FFT) is an evidence-based model that focuses on identifying the strengths of a youth (Barton, Alexander, Waldron, Turner, & Warburton, 1985). The model incorporates a focus on acceptance and respect. FFT works to identify the risk and protective factors within the community and the family. By addressing these factors, the young person is better able to overcome the obstacles that are presented to them. The model is strength-based and built on a foundation of acceptance and respect.

FFT is a short-term model that is designed to last 3–5 months. The model has demonstrated effectiveness in 11–18 year olds with engagement in the mental health, juvenile justice, child welfare, or school systems. The intervention is delivered in clinical and home based settings over 12–14 sessions (Sexton, 2011).

FFT has demonstrated effectiveness across cultural settings, including African American youth (Flicker, Turner, Waldron, Brody, & Ozechowski, 2008). It has been shown that youth and families are highly engaged, with a dropout rate that is lower than many other treatments at 28 % (Sexton & Alexander, 2004). The effectiveness of FFT has been demonstrated across diverse diagnoses and referral sources (Alexander & Robbins, 2011). FFT has demonstrated effectiveness at decreasing aggression, which is the primary reason for child and adolescent psychiatric hospitalization (Gordon, Arbuthnot, Gustafson, & McGreen, 1988).

Multisystemic Therapy (MST) is an evidence-based treatment that is currently being successfully used in over 400 sites in 30 states (Henggeler, 1999). MST is an intensive family and community-based treatment program that focuses on addressing all environmental systems that influence chronic and violent juvenile offenders—their homes and families, schools and teachers, neighborhoods and friends. MST attempts to impact each system that plays a critical role in a youth's world. By equipping and empowering the family and the youth to engage with each system, effective change can occur. These changes lead to improved quality of life for youth and their families. MST has a demonstrated record of accomplishment in working with youth from school, child welfare, and juvenile justice settings (Henggeler, Schoenwald, Borduin, Rowland, & Cunningham, 2009). MST has demonstrated effectiveness in treating youth from diverse backgrounds and has been shown to be effective in preventing psychiatric hospitalization and placement in juvenile detention facilities (Henggeler et al., 1999).

Creating Culturally Competent Care

Beginning with the monograph, *Toward a Culturally Competent System of Care* (Cross, Bazron, Dennis, & Isaacs, 1989), there has been an increased focus in the mental health community to incorporate cultural sensitivity into the treatment paradigms of patients. This approach grew out of the understanding that African American and other minority groups experienced fewer contacts with the mental health system than whites (Hu, Snowden, Jerrell, & Nguyen, 1991) and that African Americans are more likely to be psychiatrically hospitalized than to engage in outpatient treatment (Lawson, Hepler, Holladay, & Cuffel, 1994). Interestingly, little data exist on treatment outcomes; however, African Americans appear to fare less well in most settings than Caucasian patients (Takeuchi & Kim, 2000). The use of ethnically focused inpatient units for adults has shown that rehospitalization rates are lower for African Americans; however, the average length of stay was 1–2 days longer than for patients treated on general treatment units without an ethnic focus (Mathews, Glidden, Murray, Forster, & Hargreaves, 2002). These data have not been replicated on child and adolescent treatment units.

Summary

There are a number of issues affecting the identification, evaluation, and treatment of youth with mental illness. Confounding social determinants of mental health include but are not limited to the lack of available services in many poor and minority neighborhoods, and the underutilization of services because of stigma and poor education about mental health. Even when youth are identified, many are misdiagnosed. These racial differences are also affected by the location of the youth, with urban and rural African American youth being misdiagnosed at higher levels.

There is a spectrum of treatment settings ranging from the least restrictive (i.e., outpatient care) to the most restrictive (i.e., inpatient hospitalization). Although there are a number of individual, family, and community integrated evidence-based options including Functional Family Therapy and Multisystemic Therapy, many youth are not afforded these treatments. They are admitted to inpatient psychiatric hospitals instead. These most restrictive dispositions raise concern because patients at greatest risk of experiencing the worst complications of inpatient care are denied the proven benefit of these community-based interventions. Patients managed in their own community are more likely to generalize the coping skills and other treatment benefits than youth who are hospitalized for 3–5 days.

Future Directions

Future research needs to critically examine the entire evaluation and management process of African American youth who present with symptoms and signs of mental illness. Special attention to symptom patterns and variations from other populations over the course of care will help us make the most appropriate diagnoses and treatment decisions. Youth presenting for psychiatric care should receive a comprehensive evaluation free of diagnostic bias from a culturally competent clinician to determine the most appropriate diagnosis and level of care. Clinicians evaluating youth should engage in training in cultural competence to understand the cultural issues affecting diagnosis and treatment of children and adolescents. Hospital emergency departments (EDs) are a primary referral source for inpatient psychiatric hospitalization. EDs should have mental health clinicians available to screen and evaluate youth. These EDs should be part of an organized system of care where there is the ability to refer to a full array of services rather than only hospitalization, which should be the disposition of last resort along a continuum that includes outpatient care, intensive outpatient care, partial hospitalization, and evidence-based treatments such as Functional Family Therapy or Multisystemic Therapy. These comprehensive evaluations and multiple treatment options will help ensure that children are directed to the most appropriate, least restrictive level of community, and family based care when indicated while minimizing the risk of unnecessary inpatient hospitalization.

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Community Approaches to Promoting Positive Mental Health and Psychosocial Well-Being

8

Faye Z. Belgrave and Brittany M. Berry

Introduction

The World Health Organization (WHO, 2014) defined mental health as "a state of well-being in which every individual realizes his or her own potential, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to her or his community." Positive mental health for children includes having emotional, psychological, and social well-being. Positive mental health among children is seen in positive family and peer interactions and relationships; a high sense of self-worth and identity; involvement in prosocial activities; the ability to negotiate in and adapt to the environment; and the ability to resist risky behaviors including drugs, delinquency, and risky sexual behavior. The term psychosocial well-being will be used interchangeably with the term mental health to encompass these diverse conceptualizations of mental health. This chapter begins with a discussion of community and community-based participatory approaches to research, programs, and interventions. This is followed by a discussion of specific community-based programs that target African American children and adolescents' mental health and psychosocial well-being across several domains.

What Is a Community?

Understanding community approaches to psychosocial well-being starts with an understanding of community and how the community impacts well-being. Community, as defined by Chaskin and Richman (1992), is the local context in which people live and is referred to by geographical location but also a place of reference and belonging. The community includes aspects of space, place, sentiment, and action or behaviors. The dynamic network of relationships and interconnections among individuals, families, institutions, and organization make up communities. This definition assumes that communities are not just a place where individuals live but that communities provide social connections and belongingness. Community approaches to positive mental health and psychosocial well-being among African American children recognize that children's well-being can be enhanced within the community they live and attend school in. These include families, schools, and other institutions and organizations within the community (e.g., faith-based institutions, youth-serving organization, clinics, parks).

Community is also a term used to describe the "Black Community." From this perspective,

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F.Z. Belgrave (✉) • B. Berry
Department of Psychology, Virginia Commonwealth University, 820 West Franklin Street, Richmond, VA 23284-2018, USA
e-mail: fzbelgra@vcu.edu

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community can be seen as a national community of Americans of African descent with a common peoplehood, history, heritage, and values (Belgrave & Allison, 2013). When used in this context, the Black community can encompass racial and ethnic pride and behaviors. Feelings of belongingness to a "Black community" are an aspect of racial identity that has been linked to several indices of psychosocial well-being for African American youth (Belgrave, Brome, & Hampton, 2000; Townsend & Belgrave, 2000).

The term neighborhood also has other meanings. Neighborhood may describe an area surrounding a local institution, such as a school, faith-based institution, or health clinic. Neighborhoods also consist of boundaries defined by a political ward or precinct. Similar to the term community, a neighborhood includes both geographic and social components (American Planning Association, 2014).

What Types of Communities Do African American Children and Families Live in?

African American children are more likely to reside in the south and in urban rather than rural communities. About 60 % of African Americans live in ten states: New York (3.3 million); Florida (3.2 million); Texas (3.2 million); Georgia (3.1 million); California (2.7 million); North Carolina (2.2 million); Illinois (2.0 million); Maryland (1.8 million); Virginia (1.7 million), and Ohio (1.5 million). African Americans are also more likely to live in the South. The ten cities with populations greater than 100,000 with the highest percentages of Blacks are: Detroit, Michigan; Jackson, Mississippi; Miami Gardens, Florida; Birmingham, Alabama; Baltimore, Maryland; Memphis, Tennessee; New Orleans, Louisiana; Flint, Michigan; Montgomery, Alabama; and Savannah, Georgia (U.S. Census Bureau, 2011).

While most research and interventions with African Americans have included those living in urban communities, African American children from rural communities may be as disadvantaged as those in urban communities due to shortages in mental health infrastructure and fewer culturally competent mental health professionals (Logan et al., 2013). In fact, rural African American children living in poverty have a higher prevalence of mental health disorders than those living in urban communities. Moreover, African American rural residents also face substantial obstacles to mental health care and help seeking (Murry, Heflinger, Suiter, & Brody, 2011). For example, research has found that substance use among adolescents is as problematic if not greater in rural areas as in major cities (Brody et al., 2012; Gfroerer, Larson, & Colliver, 2007; Kogan, Berkel, Chen, Brody, & Murry, 2006; Van Gundy, 2006).

What Is the Impact of the Community on Psychosocial Well-Being of African American Children and Youth?

Understanding where African Americans live has implications for access to mental health services and programs that promote psychosocial well-being. Living in urban versus rural communities affects cultural experiences and expectations. For example, African Americans living in urban versus rural communities are much more likely to report discrimination, a major contributor to poor mental health (PEW, 2013). The type of community one lives in also determines resources available to youth and the presence or lack of resources impacts psychosocial well-being. For example, African American youth who live in poor communities often do not have access to role models that encourage academic and vocational success (Ceballo, McLoyd, & Toyokawa, 2004; Oyserman, Johnson, & James, 2011; Plybon, Edwards, Butler, Belgrave, & Allison, 2003).

The community context has been implicated in many studies as a factor in mental health and psychosocial well-being for African American children. Research shows that poor neighborhood context (e.g., crime, community violence, high unemployment) is linked to several negative emotional and behavioral problems among African American children. Findings across many studies of African American youth show that community violence is linked to internalizing and externalizing behaviors including depression, anxiety, and aggression (Busby, Lambert, & Ialongo, 2013; Kaynak, Lepore, & Kliewer, 2011), feelings of low self-worth (Copeland-Linder, Lambert, & Ialongo, 2010), hopelessness (Gonzalez, Jones, Kincaid, & Cuellar, 2012), delinquency (Mrug & Windle, 2010), substance use (Brenner, Zimmerman, Bauermeister, & Caldwell, 2013), and suicidality (Lambert, Copeland-Linder, & Ialongo, 2008). Fowler, Tompsett, Braciszewski, Jacques-Tiura, and Baltes (2009) reviewed 114 studies in a meta-analysis on exposure to community violence and mental health outcomes among children. They found that community violence effects were strongest on posttraumatic stress disorder (PTSD) and externalizing problems. Community poverty and unemployment are also linked to poor mental health including depression among African American children (Dallaire et al., 2008).

The effects of poor community conditions on psychosocial well-being are cumulative. In a longitudinal study, Copeland-Linder, Lambert, Chen, and Ialongo (2011) found that contextual stress (e.g., community violence, neighborhood disorders, and experiences with racial discrimination) was linked to aggressive behaviors and substance abuse. They found that contextual stress in eighth grade was predictive of substance use and aggressive behavior 2 years later for African American boys.

Neighborhood factors have been shown to impact cortisol levels among African American youth (Dulin-Keita, Casazza, Fernandez, Goran, & Gower, 2012; Kliewer, 2006). Kliewer (2006) found among African American children and adolescents that witnessing violence was linked to lower baseline cortisol levels along with increases in cortisol when exposed to a mild stressor such as a video showing community violence. Dulin-Keita et al. (2012) found that exposure to neighborhood stressors (e.g., poverty, physical disorder) was predictive of lower serum cortisol levels among African American children over time.

On the other hand, several features of neighborhoods have been linked to positive psychosocial health among African American children. Unfortunately, research is not as plentiful on the beneficial or protective effects of neighborhood and communities as it is on the adverse effects. Woolley et al. (2008) found that neighborhoods with high levels of social capital, specifically neighborhood bonding, along with lower levels of poor neighborhood physical conditions were predictive of higher academic performance among students.

Using data collected from over 1600 adolescents, Fagan, Wright, and Pinchevsky (2014) found a protective effect for neighborhood collective efficacy on violence exposure for substance use. Specifically, the relationship between victimization and substance use was weaker for youth in neighborhoods with higher versus lower levels of neighborhood collective efficacy. These findings indicate that social support at the neighborhood level can attenuate the negative impact of violence exposure. Neighborhood connective efficacy is the bond between individuals in the community, which drives them to work for the common good (Sampson, Raudenbush, & Earls, 1997). Brevard, Maxwell, Hood, and Belgrave (2013) examined the impact of intergenerational connections (e.g., the perception of availability of supportive adults in one's neighborhoods) on perceptions of neighborhood disorganization among 564 youth living in urban and rural neighborhoods. Intergenerational connections are one component of collective efficacy. The authors found that collective efficacy was related to perception of less neighborhood disorganization. Intergenerational connections lowered perceptions of disorganization in urban neighborhoods but not in rural neighborhoods. The Brevard et al. finding also showed that protective factors might differ depending on neighborhood type (i.e., rural versus urban neighborhood). Similarly, Nebbitt, Lombe, Yu, Vaughn, and Stokes (2012) identified perceived neighborhood social cohesion as a protective factor for mental health, substance abuse, and other problem behaviors for urban youth who reside in public housing communities.

Intersectionality of Community and Individual and Family Risk and Protective Factors on Psychosocial Well-Being

When considering effective community approaches to promoting positive psychosocial well-being among youth, the intersection or interaction of characteristics of the child and his or her family and the environmental or community context is important to consider (Bronfenbrenner & Bronfenbrenner, 2009; Spencer, 1995). Individual and family level factors that contribute to poor psychosocial outcomes among African American youth may be exaggerated when they occur within low-resource communities. Conversely, family protective factors can attenuate problem behaviors among African American children residing in low-resource communities. For example, Obeidallah, Brennan, Brooks-Gunn, and Earls (2004) examined early puberty, a risk factor for problem behaviors, and neighborhood disadvantage among African American girls ages 13–15. They found that the adverse effects of early puberty only occurred among girls who lived in disadvantaged neighborhoods. There were no adverse effects of early puberty for girls who lived in neighborhoods that were not disadvantaged.

Other studies have shown protective effects of cultural attributes such as ethnic identity when living in low-resource communities. For example, Corneille and Belgrave (2007) found that ethnic identity had a direct and indirect effect on drug use. High ethnic identity was linked to attitudes that disapproved of drug use and greater intentions to refrain from drug use. Moreover, ethnic identity was a protective factor against drug use when youth lived in a high-risk neighborhood.

Factors such as parental monitoring and racial socialization have been shown to be protective and are especially needed to reduce stress and associated negative behavioral outcomes when children reside in low-resource neighborhoods (Caldwell, Bell, Brooks, Ward, & Jennings, 2011; Spano, Rivera, & Bolland, 2011). Beliefs and practices and traditional family practices were associated with reduced substance use.

The interaction of poor neighborhood conditions and deviant peer relationships is another pathway through which poor neighborhoods negatively impact African American youth's psychosocial well-being. African American youth are more likely to associate with neighborhood peers than peers from school (DuBois & Hirsch, 1990). While peer associations are linked to both positive and negative youth behaviors (Bolger, Patterson, & Kupersmidt, 1998; Hussong, 2000), peer influence tends to be more negative for youth who reside in low-resource communities. Within low-resource communities peer relationships can lead to gang affiliations, drug use, and other risky behaviors (Deutsch, Crockett, Wolff, & Russell, 2012; Nebbitt & Lombe, 2007; Oetting & Beauvais, 1986). Contact with delinquent peers is also linked to poor mental health. Nebbitt and Lombe (2007) found among 238 adolescents who lived in public housing communities that exposure to delinquent peers was correlated with higher levels of depression for these youth.

Research suggests that poor neighborhood conditions can be attenuated by positive family factors, and cultural factors, and when this occurs, the psychosocial well-being of the youth is not compromised. Conversely, the negative impact of individual, peer, and family level risk factors can be exaggerated when living in poor neighborhoods.

In summary, the community context is important to consider. Community factors can have a positive or negative impact on the mental health and psychosocial well-being of African American youth. Understanding the mechanisms linking community factors and child well-being has important implications for improving African American youth's psychosocial well-being. The community can also be a viable institution for providing mental health services for African American children and families.

Mental Health Services and Treatment in Community Settings

Many African American children and families live in low-resource urban communities where traditional mental health services may not be accessible (Alicea, Pardo, Conover, Gopalan, & McKay, 2012). Other African American families live in rural communities where mental health services are lacking or limited. In both community contexts, traditional sources of mental health services such as hospitals, clinics, or private practices may be physically inaccessible and culturally inadequate. Community-based mental health services provided by schools, faith-based institutions, or other community organizations may be more accessible and acceptable to African American families. In a study of mental health seeking among 163 African American rural families, Murry et al. (2011) found that while mothers expressed confidence that mental health care providers could help their children, they preferred mental health support from the family, church, and schools.

Mental health services provided in community settings may reduce the stigma surrounding mental health perceived by some African Americans. Although there have been some decreases in stigmatization of mental health problems, some African Americans still believe that having a mental health problem is stigmatizing. Stigmatization is based on beliefs that mental health is attributed to non-biological causes and that people can overcome these problems if they just work at it hard enough (Breland-Noble, Bell, & Burriss, 2011). Other African Americans may look to God or religious practices to deal with mental health issues and may view seeking services for mental health as a lack of trust in God (Cook & Wiley, 2000). In fact, some African American churches, especially conservative African American churches (e.g., Pentecostal and Holiness Churches) may espouse the view that counseling and mental health services are not needed and that all one needs is to have faith in God (Cook & Wiley, 2000). However, more recently many African American churches are including mental health services and activities such as counseling and addiction support as part of their mission.

Other cultural values of strength as a key trait of black womanhood and black masculinity also may contribute to the avoidance of mental health services. African Americans may believe it is important to “keep it moving” and disregard emotional and mental struggles, rather than dealing with emotional problems. This type of avoidance has implications for African American youth’s mental health, as parents may be less likely to seek mental health treatment for their children. African American parents may also focus more on behavioral indicators of their child’s mental health issues rather than acknowledging and seeking help for the mental health issues. Given these cultural beliefs surrounding mental health, African American parents may be more comfortable utilizing community-based mental health services for their children rather than traditional services provided in hospitals, clinics, or like settings. Community-based services offered in settings that are familiar to parents may feel less formal or intrusive.

Still another reason why community-based mental health may be preferred is because of mistrust of those in the medical and health field due to historical (e.g., Tuskegee) and contemporary medical abuses of African Americans (Washington, 2006). This mistrust likely carries over to the provisions of mental health services (Breland-Noble et al., 2011). Community-based mental health services may be seen as less threatening for African American families, as they are typically housed in the community and often programs, services, and treatments are carried out by community members.

Cultural competency, more likely to be a feature of community-based programs than non-community-based programs, increases engagement and retention of participants. Cultural competency of the mental health provider is essential for optimizing mental health outcomes. Most African American youth and adults prefer to receive services from people who look like them and to whom they can relate. Therapists, receptionists, and other staff at community-based agencies may be African American and more relatable to families seeking services than those in settings such as hospitals and clinics.

In summary, there are several reasons why African American families may prefer community-based mental health services and programs. Some of these include continuing stigma about mental health, distrust of the health and medical systems, and increased cultural competency in community settings. The inclusion of community members across multiple levels may help African American families to be more trusting of an organization to provide mental health care to their child. Community-Based Participatory Research and Practices (CBRP) are discussed next.

Community-Based Participatory Research and Practices

Community-based participatory approaches to promoting positive psychosocial well-being among African American children and youth may be especially useful for addressing the psychological well-being of children in African American communities. Community-Based Participatory Research (CBPR) relies on communities as partners in research and intervention efforts. The Kellogg Foundation defined CBPR as a "collaborative approach to research that equitably involves all partners in the research process and recognizes the unique strengths that each brings" (Community-Campus Partnerships for Health, 2013). CBPR begins with a topic important and relevant to the community. While CBPR has shown much effectiveness in improving health outcomes among ethnic/racial minorities particularly in public health, less research has been done in the mental health field (Mulvaney-Day, Rappaport, Alegría, & Codianne, 2006; Stacciarini, Shattell, Coady, & Wiens, 2011).

Stacciarini et al. (2011) conducted a systematic review of CBPR approaches to mental health. The majority ($N=20$) of the studies reviewed focused on mental health issues among adults and only two studies focused on CBPR and children. One of these programs was a school community partnership. One study included in the meta-analysis was a study by Epstein, Kadela-Collins, Bailey-Burch, Walker-Thoth, and Pancella (2007). Epstein et al. collaborated with a faith-based community to develop and evaluate a substance education curriculum for fourth, fifth, and sixth graders. The research team invited 12 African American churches to participate in the project. A series of focus groups were held with youth attending the church to get feedback on the educational video. Pastors and youth ministers helped to recruit youth and to facilitate the focus groups. Several meetings were held with Pastors and church leaders who provided input as to what the curriculum should look like (e.g., have a grandmother figure tell the story and have a male counterpart with the grandmother figure). The church community was also involved in providing cast members for the project. A sample video demonstrated what the final program would look like based on recommendation of the pastors to involve their congregants in the production of the video.

Communities are places in which programs and services can be implemented to increase psychosocial well-being, and communities can provide resources and assets that improve psychosocial well-being. Community-based programs that target mental health and psychosocial well-being of African American children will be discussed later in this chapter.

Using Community Partnerships to Engage African American Children and Families in Research and Treatment

There has been limited research on how to involve members of the African American community in mental health treatment and research. Breland-Noble and colleagues work with the AAKOMA project (Breland-Noble, 2012; Breland-Noble, Bell, Burriss, Poole, & AAKOMA Project Advisory Board, 2012) provide a model of how to engage African American children and families in mental health research and treatment. Breland-Noble et al. (2012) implemented a systematic and integrative community participatory approach that involved the community in a multi-phase clinical intervention for depressed African American adolescents and their families. Three community engagement efforts were used. These included (1) re-establishing the village, (2) providing access to health care, and (3) improving bonding and attachments. To begin the project, researchers recruited and engaged a 14-member community advisory board that included community leaders. Communication between researchers and the advisory board was ongoing via face-to-face and telephone meetings, and email communications. The advisory board provided community information, reviewed and provided feedback on the cultural relevance of the protocol, and assisted in the development of a sustainability plan.

Breland-Noble and colleagues met their enrollment goals and successfully enrolled 57 adolescents in a Phase 1 study. The Phase 1 study was a qualitative examination of African American youth's and caregivers' perceptions of barriers to depression treatment and research engagement. Adolescent participants were between the ages of 11 and 17, self-identified as Black or African American and had been offered mental health care or research participation. Breland-Noble and colleagues identified the methods used that were most helpful for recruitment. Community outreach events resulted in the most participants being recruited (26.3 %), followed by community liaisons, specifically one liaison (21.05 %). Media, specifically radio and television, resulted in very little recruitment (1.75 %). This work shows how communities can be engaged in community-based research and treatment. Notably, this model was effective because it substantially involved community members in all activities. It also provided information on the most effective ways to recruit African American youth within a specific community. Moreover, it identified the barriers to treatment prior to the treatment being offered. We will return to this work later in the chapter.

In summary, community-based participatory research and practices are likely to be useful when working with African American families. This partnership should be non-hierarchical and community members should be integrated and substantially involved at all levels and in all activities. We next discuss a variety of community-based programs that have been successful in increasing psychosocial well-being and mental health among children and adolescents and their families.

Community-Based Programs

Variations in Community-Based Approaches

Community-based programs may be implemented in a variety of community settings. These include the home, community-based organizations, churches and other faith-based organizations, schools, libraries, recreational facilities, and even in field settings. Our conceptualization of poor mental health is broad and includes disorders such as depression and anxiety as well as poor social and interpersonal skills and relationships, the absence of prosocial behaviors, low self-worth and identity, and involvement in risky behaviors. Consequently, there are many services provided to youth by community organizations that have not been traditionally thought of as providers of mental health services. These include programs and activities provided by community organizations that specifically focus on youth, such as Big Brothers and Big Sisters and the Boys and Girls Club. There are also youth-oriented programs and activities housed in community organizations that do not specifically focus on youth but provide youth programming (e.g., YMCA). In addition, some programs target parents, which indirectly impact the mental health of youth.

Community programs and services address mental health needs directly and indirectly. For instance, a trained therapist may address mental health issues directly by providing intensive in-home therapeutic services. Other programs may improve youth's mental health indirectly through increasing self-worth and developing positive peer relationships. For example, Girls Scouts may engage girls in fundraising activities to build self-esteem and interpersonal skills. Community athletic leagues may focus on engaging youth in sports to increase discipline and prevent violence. Youth vary in the type and severity of mental health needs. Therefore, a variety of approaches and programs are necessary to help a population with diverse needs and lifestyles.

Community-Based Programs in Schools Schools are desirable community settings in which mental health needs of youth can be addressed. Schools are located in communities and the demographics, characteristics, and problems of students in schools often parallel the demographics and problems of the community in which schools are located. Schools provide up to 70 % of all mental health services (Hoagwood & Johnson, 2003).

Schools provide an optimal environment for addressing children's mental health needs for several reasons (Huberty, 2012). One, there are more opportunities to identify problems early in child development before a mental health problem gets out of hand. Poor social and peer relationships are often first observed in a school environment as youth may exhibit behaviors in school that they do not exhibit in the home. Two, the vast majority of all children attend public or private schools and youth spend a significant amount of time in school for the first 17–18 years of life. Three, parents may be more willing to participate in a school-based program rather than a clinic or hospital-based program. African American parents in particular may welcome school-based mental health services because these services may not be viewed as mental health services but educational services. Four, schools can provide the environment where comprehensive services that address all major areas of a child's life can be addressed.

Community-Based Programs in African American Churches Churches are also an optimal setting for mental health intervention, given the centrality of religion and spirituality in the lives of African Americans. The African American Church has historically been a cornerstone of the African American community and thus has an important role as a source of mental health support and resources. African Americans are one of the most religious ethnic groups in the USA and about 79 % of African Americans believe religiosity is important (PEW, 2009). African American youth are also more likely to consider themselves religious and attend church activities at higher prevalence than White or Hispanic youth.

Many churches offer opportunities for youth to engage in positive activities and to learn together. These may include weekly Bible studies, prayer meetings, youth group meetings, and choir rehearsals. Other youth-specific activities involve athletic teams, service groups, field trips, and cultural enrichment activities. These activities provide opportunities for positive peer relationships, character development, and growth in self-awareness. Moreover, religious activities provide a context for faith messages, principles, and health messages that reinforce healthy living and staying away from problem behaviors (e.g., drug use, delinquency, risky sexual behavior). Participation in religious activities may help youth understand how to apply the principles and religious doctrine to their own lives. The application of these principles may then lead to fewer mental health issues and improved psychosocial well-being.

Finally, religious institutions can be places in which mental health and other positive interventions can be implemented. The study by Epstein et al. (2007) described earlier is an example of how community-based participatory research involving 12 African American churches resulted in a culturally congruent drug education curriculum for African American children.

Programs that Address Mental Health Needs and Psychosocial Well-Being

The National Registry of Evidence-Based Programs and Practices (NREPP) is a registry of more than 330 substance abuse and mental health interventions for children and adults. We searched NREPP for interventions that met the following criteria: (1) ages: between 0 and 17; (2) ethnicity: African American or Black; (3) settings: school, home, and other community; and (4) areas of interest: mental health promotion and mental health treatment. One hundred and six interventions met these criteria. We conducted a second search of the NREPP registry using criteria 1–3 and changed criterion 4 to substance abuse prevention and substance abuse treatment. Seventy-eight interventions met these criteria.

Most of the NREPP interventions targeted social skills, delinquency, academic performance, and other problem behaviors, along with mental health and substance use. The majority of interventions on NREPP were not developed specifically for African American youth although a few were developed for racial and ethnic minority youth. In addition to community-based programs and interventions in the NREPP, we identify and provide examples of cultural programs that have been implemented in African American community settings. These programs and interventions are not meant to be exhaustive, but to provide examples of the diversity of programs responsive to the mental health of African American children and adolescents. These programs are organized by domain including (1) community-based programs that promote positive emotional and behavioral well-being; (2) community-based programs that deter risky behaviors; (3) community-based programs that address depression and anxiety; and (4) community-based programs that promote cultural attributes.

Community-Based Programs to Promote Positive Emotional and Behavioral Well-Being

Community programs, such as Boy Scouts and Girl Scouts and the Boys and Girls Club, promote positive emotional health and prosocial behavior through several mechanisms: (1) These programs connect youth to other peers in their communities who are involved in similar positive and prosocial activities. Peers are the most influential source in preventing or contributing to delinquency, substance use, and risky sexual behavior (Bolger et al., 1998; Hussong, 2000). (2) These programs provide monitoring and structured after-school activities that deter youth from engagement in risky activities. Research suggests that participation in structured after-school activities is linked to fewer problem behaviors and better academic performance (Fashola, 2011). For this reason, the US Department of Education (2014) has funded after-school programs such as the Empowerment Zone and 21st Century Community Learning Centers located in high-poverty and low-performing school districts to provide the structure that these types of programs provide. (3) These programs generally link youth to an adult mentor, or coach who is culturally similar to them and who can become a supportive adult. Natural mentorship such as these developed from a coach, or teacher, or club leader during adolescence has been linked to improved psychological well-being among young African American adults (Hurd & Zimmerman, 2014). (4) These programs provide opportunities for youth to develop leadership and interpersonal skills that promote efficacy, and positive self-worth. Many of these programs provide opportunities for youth to engage in service activities within their communities, increasing their prosocial behavior along with their leadership skills.

Boys and Girls Club The Boys and Girls Club of America (BGCA) is a well-known and long-standing community program that promotes positive psychosocial development for African

American youth, as well as youth of other ethnic groups (Anderson-Butcher, Newsome, & Ferrari, 2003; BGCA, 2014b). The mission of the Boys and Girls Club is to cultivate productivity, care, and citizenship. Members of the Boys and Girls Club gain opportunities for lasting relationships with caring adults, a safe place to learn, and experiences to develop character and hope. They also engage in sports, art, and academic activities, among many other activities. Experiences in the BGCA may promote self-esteem as well as overall emotional and behavioral well-being.

The Boys and Girls Club has been in existence for over 100 years with participation by approximately 4 million youth through its various programs and outreach strategies (BGCA, 2014a). There are over 4000 chartered club locations across the nation, including 1400 in schools and 300 in public housing. Approximately 55 % of club members are males and 45 % are females. Boys and Girls Clubs reach a diverse population of youth. Thirty percent are African American.

Boy Scouts and Girl Scouts Many African American youth participate in Boy Scouts and Girl Scouts, which are in both rural and urban communities. Boy Scouts and Girl Scouts groups are also found in many African American churches. Boy Scouts and Girl Scouts have longstanding histories as community programs serving African American youth. Although there has been some historical controversy about membership in the Boy Scouts due to the exclusion of gay boys, this has changed recently as membership in Boy Scouts cannot be denied based on sexual preference (Boy Scouts of America, 2014). Founded in 1910, the Boy Scouts' purpose is to help boys to cultivate character, citizenship, and physical fitness (Boy Scouts of America, 2014). The Cub Scout program is open to boys ages 7–10 and Boys Scouts is for boys ages 11–18.

Girl Scouts was founded in 1912. Currently, there are approximately 2.3 million girl scouts across 92 countries. Scout subgroups include the Daisies (grades K-1), Brownies (grades 2–3), Juniors (grades 4–5), Cadettes (grades 6–8), Seniors (grades 9–10), and Ambassadors (grades 11–12). Girl Scouts seeks to develop courage, character, and confidence in its scouts in order to better the global community (Girl Scouts, 2014b). Girl Scouts has a commitment to diversity and seeks to maintain diversity across its members. In fact, executive leadership of Girl Scouts has been historically and currently African American women and other women of color (Girl Scouts, 2014a). Scout groups are housed in a variety of community locations including schools, and churches.

Boy and Girl Scouts engage in many enrichment activities. They participate in outdoors and sports activities that develop discipline and environmental responsibility. Scouts also complete community service projects that bolster citizenship and character. Teamwork and peer bonds are important aspects of all activities the scouts engage in, from service projects, to selling cookies each year. Scouts gain leadership and social skills that aid in their success within and outside of scout activities. Through participation in various activities, scouts earn badges and receive awards. Badges and awards may encourage participation, increase self-esteem and self-efficacy, motivate youth to set and work toward goals, and reinforce the values taught by Boy and Girl Scouts.

Schoenberg, Salmond, and Modi (2012) conducted an evaluation of the long-term impact of participating in Girl Scouts using quantitative and qualitative methods. A nationally representative sample of approximately 3550 women ages 18 and older was surveyed via telephone or online survey, with roughly 50 % being scout alumni. Additionally, qualitative data was collected via focus groups (10 groups), interviews ($N=20$), discussions in an online community ($N=30$–50), and video oral histories ($N=12$). Girl Scout alumni reported higher sense-of-self, education, community service, civic engagement, and income relative to non-alumni. These findings suggest that participation in scouts may be a viable community-based program to promote positive emotional and behavioral health for African American youth.

Big Brothers Big Sisters Big Brothers Big Sisters (BBBS) is a long-standing, community-based mentorship program that pairs adult mentors with youth mentees (Tierney, Grossman, & Resch, 2000). Youth "littles" as they are called, are between the ages of 5 and 18 and most live in single-parent households. The application process includes a written application, and interview with parent and child, and a home assessment to determine eligibility for participation. The volunteer "big" and the youth "little" meet two to four times monthly for at least 1 year, with each meeting lasting approximately 4 h. The BBBS program does not target particular emotional or behavioral issues, but focuses on the overall positive development of the child. The youth's positive development in the program is centered on the relationship of trust and mentorship that grows between the adult volunteer and youth.

In an evaluation study of the BBBS program, 1138 10- to 16-year-olds were assessed to determine the impact of participating in the program (Tierney et al., 2000). The sample was comprised of approximately 57 % minority youth, of which 70 % were African American. Participants were randomly assigned to the treatment or wait-list control conditions. Upon determination of eligibility, participants in the treatment group were immediately matched with a big brother or sister and began the mentorship program. Control participants were placed on an 18-month wait-list (Tierney et al., 2000). Findings indicated that youth in the treatment group were less likely to initiate drug or alcohol use than youth in the control group during the study period (Tierney et al., 2000). They were also less likely to hit someone. Moreover, treatment youth skipped class and school less frequently, reported greater competence in completing schoolwork, and reported modest improvement in their grade point average compared to control youth. Based on these findings, the BBBS program stands as an example of an effective one-on-one mentorship program for African American youth.

Community-Based Programs that Prevent and Decrease Risky Behaviors (e.g., Substance Use, Delinquency, and Sexual Risk)

Delinquency, substance use, sexual risk, and other risky behaviors are of great concern because of the consequences of these behaviors. The community, including schools, provides a valuable context for prevention and intervention programming to protect against these risky behaviors. Most of the programs described next were developed specifically for African Americans and other ethnic minority youth. These programs also attend to the culture of African Americans and seek to promote cultural constructs such as racial socialization and racial pride while decreasing risk.

The Aban Aya Youth Project The Aban Aya Youth Project (also known as the Collaborative HIV Prevention and Adolescent Mental Health Project, CHAMP) is a program that targets risky behaviors of African American youth (Li & Flay, 2009). Aban Aya comes from the Akan language of Ghana and represents the terms for "fence" or "protection" and "self-determination." The Aban Aya Youth Project was developed to target five risky behaviors, including violence, provoking behavior, school delinquency, substance use, and risky sex behaviors. The program includes a social component that is implemented by teachers in the classroom, along with a community component that involves the community that surrounds the school. The social development component is implemented with African American youth over 4 years, from fifth to eighth grade. Teachers lead sessions lasting 40–45 min that focus on cultivating different skill sets, such as conflict resolution and drug refusal skills. The sexuality component of the curriculum provides an emphasis on abstinence as well as safe sex practices for youth who are sexually active.

The program also attends to the development of intrapersonal factors such as self-esteem and cultural pride along with strengthening ties within the family and the community. The school community component utilizes empowerment sessions held in the community to reinforce and disseminate the skills the youth learn in the classroom. These empowerment sessions include parent workshops, as well as an initiative to foster community ties between parents, schools, and local agencies and businesses.

An evaluation compared the Aban Aya Project to a general health curriculum (Flay, Graumlich, Segawa, Burns, & Holliday, 2004). Schools were randomly assigned to a treatment condition in which Aban Aya was implemented, and to the general health curriculum condition. Students from 12 schools were followed and surveyed at various time points from fifth to eighth grade. Findings indicated that participation in the Aban Aya program was related to a reduction in the rate of increase for several risky behaviors among African American boys. The rates of increase in violent behavior, provoking behavior, delinquency, drug use, and recent sexual intercourse were all reduced (Flay et al., 2004). Additionally, the rate of increase improved for condom use. The Aban Aya Youth project was found to be an effective intervention for African American male youth ages 10–14; however, no significant effects were found for African American girls. This evaluation shows that programs may differ in effectiveness for boys and girls; therefore, it may be important to develop gender-specific programs for reducing risk.

Strong African American Families (SAAF) SAAF is primarily a substance abuse prevention program whereby African American youth and parents participate in 14 h of skill-building sessions for 7 weeks (Brody, Chen, Beach, Philibert, & Kogan, 2009). The SAAF program was designed to prevent substance use and behavior problems among youth by strengthening family interactions and preparing youth for a successful transition into adolescence. Each week youth and parents participate in one hour of separate, concurrent sessions, followed by a one-hour joint session. During these joint sessions, families practice the skills they learn in the separate sessions. Parent sessions include topics such as, monitoring, racial socialization, communication about sex with youth, and establishing clear expectations for youth alcohol use. Topics covered in the youth sessions include, the importance of household rules and goal setting, how to behave when encountering racism, and characteristics of peers who are sexually active and/or alcohol users.

Brody et al. (2006) evaluated the SAAF program using a cluster-randomized design. Participants included African American 11-year-olds and their primary caregivers. A total of 332 families from nine rural communities participated. Community-level randomization was used to separate prevention and control communities. The investigators found that youth in the prevention condition were less likely to initiate alcohol use. Of the youth who reported using alcohol, participants in the prevention condition reported slower increases in alcohol consumption over time compared to those in the control condition. These findings held true in the long-term, indicating that participation in SAAF as a preadolescent may be protective against alcohol use during adolescence (Brody, Chen, Kogan, Murry, & Brown, 2010).

In another study, Brody et al. (2009) examined the impact of the program on rural youth with a higher genetic risk for problem behaviors. Participants included 641 African American families from rural Georgia. Youths' participation in risk behaviors was evaluated at three time points across 29 months (pretest, posttest, and long-term follow-up). The genetic vulnerability factor of interest was assessed 2 years following the long-term follow-up assessment. Participants in the control condition who had the genetic risk showed greater increases in risk behaviors over the 29 months than SAAF youth with the genetic risks, as well as youth in both conditions who did not have the genetic risk factor. These findings are significant as they imply the potential mitigating impact SAAF may have on genetic risk for problem behaviors among rural African American youth.

In still another study of the effectiveness of the SAAF, Brody et al. (2012) examined the impact of the SAAF program on conduct problems and substance use. Data were collected from 502 black families in rural Georgia, who were assigned randomly to SAAF or an attention control condition. Self-report measures on conduct problem behaviors, substance use, substance use problems, and depressive symptoms were collected from teens (mean age = 16) at pretest and again at posttest (mean age = 17 years, 10 months). The authors found that participants in the SAAF lowered increases in conduct problem behavior, substance use, substance use problems, and depressive symptom. Adolescents in SAAF reported lower problem behavior than did adolescents in the attention control condition across the 22 months between pretest and long-term assessment.

REAL (Responsible, Empowered, Aware, Living) Men REAL is an HIV prevention program that targets adolescent boys, ages 11–14, and their father figures (DiIorio, McCarty, Resnicow, Lehr, & Denzmore, 2007). The program is intended to reduce risky sexual behaviors and negative outcomes by focusing on HIV prevention, delaying sexual intercourse, increasing condom use for boys who are sexually active, and increasing boys' communication with fathers or father figures. Fathers attend seven sessions where they engage in discussions about how to communicate with their sons, parental monitoring, and their sons' relationships with peers. Topics also include general sex discussions as well as information about how HIV is transmitted and prevented. Sons attend the final session with their father figure. Participation in REAL has been shown to be effective at delaying sexual intercourse and increasing condom use if sexually active 6 months post-intervention. Moreover, father figures who participated in the intervention reported more sex-related discussion with their sons compared to father figures in the control group. REAL may be beneficial in protecting African American boys against sexual risk and enhancing their relationships with men who are influential in their lives (DiIorio et al., 2007).

Community-Based Programs for Addressing Depression and Anxiety

Community-based mental health initiatives should also address barriers to mental healthcare seeking. Breland-Noble et al. (2012) developed and tested a motivational interviewing intervention that encouraged African American youth with depression to engage in a 2-phase treatment intervention trial. The African American Knowledge Optimized for Mindfully Healthy Adolescents (AAKOMA) Project (Breland-Noble, Burriss, Poole, & AAKOMA Project Advisory Board, 2010) is a 2-phase depression intervention. Phase 1 was a qualitative study in which a community sample of African American youth and adults discussed perceptions of adolescent depression, as well as barriers to engagement in treatment and research. During Phase 2, a manualized treatment on motivational interviewing was developed to be used to increase African American youth's readiness for depression treatment.

AAKOMA FLOA The AAKOMA FLOA intervention is described in a manual (AAKOMA Family Leadership over Adolescent Depression [FLOA]) and included four steps (Breland-Noble, 2012). The first step was a phone screening to ensure that participants meet the inclusion criteria. Adolescents who met the inclusion criteria were scheduled to attend an initial in-person meeting that involved informed consent, verification of inclusion criteria, and collection of baseline data. Next, youth were randomized to a treatment or delayed control condition. Adolescents in the treatment condition received a brief phone call to go over treatment resistance based on the baseline assessment. Intervention sessions were then scheduled for the clinician to meet with the youth and parents. These sessions were focused on decreasing cultural and psychological barriers to treatment engagement for depression. Clinicians and parents discussed barriers to seeking treatment for youth in session one. Some of these barriers included confidentiality, depressive disorders in adolescents, roles of mental health workers, negative past experiences with mental healthcare, and skills to motivate youth to engage in treatment. Clinicians and adolescents discussed the adolescents' readiness to engage in depression treatment as well as any family concerns that could hinder treatment engagement.

In session two, the clinician and family discussed the work that was needed for obtaining treatment, any homework or leftover topics from the first session, and a plan for the suggestions provided by the clinician. Fifteen-twenty treatment referrals were provided to families to assist them in choosing a clinician and obtaining treatment.

Breland-Noble (2012) conducted a pilot test of the treatment engagement intervention. A sample of 16 youth was randomized to the treatment and delayed control conditions. Inclusion criteria included youth aged 11–17, with a diagnosis of unipolar depression. All of the intervention participants initiated depression treatment following the intervention compared to 75 % of the delayed control participants. The motivational interviewing intervention was found to be effective in increasing engagement in treatment. The author suggested that this may be due to increased self-efficacy in treatment-seeking and greater comfort with the treatment process, among other factors. This study highlights the necessary steps that need to be taken to engage African American youth and families in mental health treatment.

LAST Grief and Trauma Intervention for Children African American youth are more likely to experience grief and trauma than adolescents from other racial/ethnic groups (National Research Council, 1993; Viboch, 2005). The Project Loss and Survival Team (LAST) is a manualized intervention developed to help elementary aged (7–12) youth work through grief and trauma resulting from death, disaster, or violence (Salloum & Overstreet, 2008). The program consists of 10 weekly sessions that lead participants through three phases including, (1) safety and resilience, (2) restorative retelling, and (3) reconnecting. Sessions are approximately 1 h in duration. Project LAST is grounded in an ecological systems approach and is intended to be developmentally and culturally appropriate for the target population. It has been delivered in group and individual formats, with participants in the group format receiving an additional one-on-one session. The primary goals of Project LAST are to (1) educate youth about grief and trauma; (2) help youth develop a coherent narrative of the traumatic experience, as well as express their thoughts and emotions in a meaningful way; and (3) reduce traumatic stress symptoms.

Following Hurricane Katrina, the Children's Bureau of New Orleans implemented Project LAST in three new elementary schools opened to accommodate children in flooded areas of the city (Salloum & Overstreet, 2008). All three schools offered the intervention as part of an after-school program and one school also offered it as a part of their in-school mental health services. A total of 56 youth with at least moderate PTSD symptoms were randomly assigned to either the group or individual format of the intervention. The majority of the participants were African American (89 %). Although Project LAST was implemented as a response to trauma and grief brought on by Hurricane Katrina, several of the participants reported having previously experienced violence-related trauma. Participants completed measures of disaster-related exposure, PTSD symptoms, depression, traumatic grief, and distress at pretest, posttest, and 3 weeks following the posttest. All of the outcome variables significantly decreased from pretest to posttest and follow-up. There was no difference in effects for participants in the individual versus group format (Salloum & Overstreet, 2008). These findings support the utility of this school-based grief and trauma intervention for elementary school-aged children.

Coping and Support Training (CAST) CAST is a suicide prevention program that has been used for African American youth as well as youth of other ethnic groups (Eggert, Thompson, Randell, & Pike, 2002). The program targets youth ages 14–19 who are at risk for suicide, as determined by a psychological screening. Youth participate in a 6-week series of 12 55-minute sessions in a group of 5–7 other youth. Trained high school teachers, counselors, and nurses facilitate the sessions. The goals of CAST include decreasing depression, anger, and drug involvement, as well as improving academic performance. The intervention employs life skills training and social support from fellow group members to facilitate attainment of these goals. Session topics include goal setting and monitoring, decision-making skills, anger and depression management, "school smarts," and control of drug use and relapse prevention. Moreover, youth work on building self-esteem and recognizing their own progress, as well as supporting one another through the program.

A randomized clinical trial was employed to evaluate the impact of participation in CAST on youth at risk of suicide. Participants were randomized to the treatment condition or a usual care condition. CAST participants reported less suicidal risk behavior at the posttest than participants in the usual care condition (Eggert et al., 2002; Thompson, Eggert, Randell, & Pike, 2001). CAST participants also indicated decreases in their positive attitudes toward suicide, suicidal ideation, and depression at 9-month follow-up. Moreover, intervention participants' reported a greater sense of perceived personal control in life and greater problem-solving skills at the 9-month follow-up than control participants. The findings support the effectiveness of the school-based CAST as a support for youth at risk of suicide.

Community-Based Programs that Promote Cultural Attributes

Considerations of culture are particularly important to the mental health of African Americans. Ethnic identity and other cultural attributes are linked to personal well-being for African American youth and other youth of color (Rodriguez, Umaña-Taylor, Smith, & Johnson, 2009; Smith & Sylva, 2011). High racial/ethnic identity is associated with several favorable developmental outcomes including increased academic achievement (Bernal, Saenz, & Knight, 1995), more positive self-esteem and self-worth (Townsend & Belgrave, 2000), more prosocial behaviors (Smith, Walker, Fields, Brookins, & Seay, 1999), and less substance use and risky sexual behaviors (Belgrave, Brome, et al., 2000; Belgrave, Marin, & Chambers, 2000).

Culturally competent interventions that consider racial and ethnic identity (and related cultural constructs) are likely to be more effective than those that do not. Griner and Smith (2006) conducted a meta-analysis of culturally adapted mental health interventions to examine the benefit of adapting mental health interventions to be culturally salient for a particular group rather than using a more universal approach. The results indicated that across 76 studies, there was a moderately strong benefit of culturally adapted interventions. Culturally salient interventions that were modified for a specific group were four times as effective as generic interventions delivered to a diverse group of clients. Thus, culture is important to address in mental health efforts. Programs that promote cultural pride and other positive cultural attributes may be especially important and may attenuate discrimination and unfavorable community context on mental health outcomes for African American youth. We describe two programs that have promoted cultural attributes among African American youth next.

Sisters of Nia This is a cultural enrichment program that focuses on topics related to African and African American culture (Belgrave, Cherry, Butler, & Townsend, 2008). *Nia* is a Swahili word meaning purpose. The 15-session program was created for African American girls in grades five through nine. The program has been implemented in several community settings including Boys and Girls Clubs, low-resource housing communities, middle schools, and in other community settings.

The content and the format of Sisters of Nia are designed to enrich African American girls cultural experiences and promote racial identity. At the first session, girls are organized into small groups called *jamaas* (Kiswahili for family). A leader, called an *mzee*, facilitates discussions and activities with the participant groups. Weekly group sessions are focused on themes around the seven principles of Kwanzaa that include, *umoja* (unity), *kujichagulia* (self-determination), *ujima* (collective work and responsibility), *ujamaa* (cooperative economics), *nia* (purpose), *kuumba* (creativity), and *imani* (faith). Participants engage in group discussions and activities and work on planning for the future, building relationships, and increasing self-esteem and ethnic pride.

Fifty-nine African American adolescent females participated in an evaluation study of Sisters of Nia (Belgrave et al., 2004). Participants were recruited from two middle schools in the Southeast and had an average age of 11.8 years. Participants in the control group participated in after-school tutoring sessions. Intervention and control participants completed baseline and posttest assessments of ethnic identity, gender roles, and relational aggression. Girls in the intervention group reported a significant increase in ethnic identity and a marginally significant increase in androgynous gender roles. Findings also showed that girls in the intervention had decreases in relational aggression. These changes were attributed to the communal and relationship-oriented sessions that focus on the cultural attributes of African Americans. Changes in protective cultural attributes (e.g., ethnic identity, gender roles, and relationships) following participation in Sisters of Nia provide support for the inclusion of culturally relevant materials and format for mental health interventions.

Brothers of Ujima The program is similar to Sisters of Nia for African American boys (Belgrave, Allison, Wilson, & Tademy, 2011). Brothers of Ujima has been implemented in churches, Boys and Girls Clubs, and in low-resource housing communities. Similar to Sisters of Nia, African American boys (ages 10–14) are divided into *jamaas* and sessions are facilitated by an *mzee*. The objectives of Brothers of Ujima are to cultivate creativity, increase awareness of African American culture, and provide opportunities of boys to learn from successful, African American male role models. Brothers of Ujima enables African American males to work together to set goals, and gain increased self-esteem, racial identity, and personal responsibility.

Evidence supporting the effectiveness of Brothers of Ujima curriculum is limited due to an insufficient control group. However, an evaluation of the implementation of Brothers of Ujima showed high levels of engagement and satisfaction among program participants and their parents (Belgrave, 2010). Interviews conducted with parents, mostly mothers' revealed high parental endorsement of their son's participation in the program. Parents liked the relationship building between facilitators and participants, which yielded strong bonds similar to those with a father figure. Mothers also reported that boys engaged in more communication with them including sharing of academic successes and difficulties. Mothers also commented on behavioral changes they observed in their sons following participation in Brothers of Ujima. Mothers reported that their sons were more responsible for homework and house duties, younger siblings, and required repeated instruction less frequently. Brothers of Ujima appears promising in positively impacting African American boys' self and identity. However, given the lack of a control group, further examination is necessary to assess the effectiveness of this cultural curriculum. Both Sisters of Nia and Brothers of Ujima can be adapted for implementation in a variety of community settings.

In summary, there are several community-based programs that can be used to address African American children and adolescents' mental health. These range from community-based programs such as the Boys and Girls Club to evidenced-based programs. However, much more is needed.

Conclusion

Communities offer an optimal context in which to provide a broad array of mental health services for African American children and adolescents. Communities can be sources of both risk and protection for African American children. Family and cultural protective factors can attenuate the poor mental health and psychosocial outcomes that occur from residing in low-resource communities. Communities can also provide social bonding and other sources of support and deter youth from problem behaviors. Mental health services provided in the community are more likely to resonate culturally with African Americans than those provided in more traditional settings such as hospitals and clinics. Community-based participatory research and practices is the preferred way for engaging African American youth and families in mental health research and services.

Community-based mental health services can be provided in schools, faith-based institutions, the home, and other community organizations. There are several types of mental health programs for African American youth and families, including programs such as the Boys and Girls Club, as well as programs that have undergone a rigorous process of development, implementation, and evaluation. However, much more is needed, as there are limited culturally congruent, community-based programs that have been developed specifically for African American youth.

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Part III

Treatments

Conduct Disorder and Oppositional Defiant Disorder

9

Phillippe B. Cunningham, Jeff Randall,
Stacy R. Ryan, and Beata DaNine Fleming

Introduction

The leading cause of mental health referral for children and adolescents are Disruptive Behavior Disorders (DBDs: e.g., conduct disorder, oppositional defiant disorder). Numerous studies have documented that youth diagnosed with DBDs experience poor outcomes across multiple areas of functioning including disrupted interpersonal relationships with family (Barrett, Katsiyannis, & Zhang, 2010) and friends, lower educational and vocational functioning, and health risk (Hinshaw, 1992). In addition, youth diagnosed with a DBDs are at an increased risk of comorbid substance abuse and a variety of other mental health problems that often persist into adulthood (Chan, Dennis, & Funk, 2008). For example, youth diagnosed with conduct disorder are at increased risk for significant negative adult outcomes that can include being diagnosed with an antisocial personality or substance abuse disorder, criminal or violent offending, and imprisonment (Moffitt & Scott, 2008). Thus, it is not surprising that DBDs among children and adolescents have become a major public health concern for many parents, community leaders, policy makers, clinicians, and researchers. This concern is particularly heightened for African American youth who are at risk for developing a DBD (Crystal, Olfson, Huang, Pincus, & Gerhard, 2009). This chapter will examine two of the most prevalent disruptive behavior disorders of childhood: Oppositional Defiant Disorder (ODD) and Conduct Disorder (CD) in African American youth (Roberts, Roberts, & Xing, 2007).

As the US Surgeon General observed, “Striking Disparities” in mental health treatment is a major public health challenge for people of color who are burdened by unmet mental health needs that undermine their overall health, productivity, and longevity (US Department of Health and Human Services, 2001). Many in the mental healthcare community have voiced concerns that current psychotherapies may not be particularly relevant for or helpful with ethnic minority populations (Nieuwsma, 2007). A well-established literature indicates that compared with Whites, ethnic minority youth underutilize mental health services (Atkinson & Gim, 1989; Garland et al., 2005), terminate treatment prematurely (Armbruster & Fallon, 1994; Miller, Southam-Gerow, & Allin, 2008; Sue, 1977), attend fewer sessions (Bui & Takeuchi, 1992), and realize

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P.B. Cunningham (✉) • J. Randall • B.D. Fleming
Department of Psychiatry and Behavioral Sciences,
Family Services Research Center, Medical University
of South Carolina, 176 Croghan Spur Road,
Suite 104, Charleston, SC 29407, USA
e-mail: cunninpb@musc.edu

S.R. Ryan
University of Texas Health Science at San Antonio,
San Antonio, TX, USA

A.M. Breland-Noble et al. (eds.), *Handbook of Mental Health in African American Youth*,
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fewer clinical benefits (Weersing & Weisz, 2002). This should not be surprising as mental health treatment is embedded in Western culture and derived from studies mainly with Anglo/European populations (Jezewski & Sotnik, 2001).

The primary purpose of this chapter is to examine the prevalence and treatment of ODD and CD and associated health disparities among African American youth. We first discuss the prevalence of ODD and CD among children and adolescents in general, and specifically with African American youth; present an overview of the DSM-V (American Psychiatric Association, 2013) diagnostic criteria for ODD and CD; and followed by a section on treatment of ODD and CD in African American youth. Each section includes pertinent empirical information on existing health disparities in the prevalence and treatment of ODD and CD for African American youth.

ODD and CD Prevalence Rates: General Population

There are several literature reviews summarizing prevalence rates of psychiatric disorders in youth, including ODD and CD specifically (e.g., Canino, Polanczyk, Bauermeister, Rohde, & Frick, 2010; Costello, Messer, Bird, Cohen, & Reinherz, 1998; Roberts et al., 2007). While prevalence rates for the presence of any psychiatric disorder in youth vary widely across studies (e.g., 13–51 %; Vicente et al., 2012), prevalence rates for ODD and CD seem to follow a consistent pattern. Estimated rates of ODD in the past 30 days to 3 months range between 2.7 % and 2.9 % (Costello, Mustillo, Erkanli, Keeler, & Angold, 2003; Kessler et al., 2012; Roberts et al., 2007), and increase to approximately 8.3 % as the timeframe for assessment increases (i.e., previous 12 months; Kessler et al., 2012). Estimated rates of CD in the past 30 days to 3 months range between 1.5 % and 2.7 % (Costello et al., 2003; Kessler et al., 2012), and increase to 2.1–5.4 % for the previous 12 months (Kessler et al., 2012; Merikangas et al., 2010; Roberts et al., 2007), and increase still further to 9.5 % when the timeframe is lifetime (Nock, Kazdin, Hiripi, & Kessler, 2006). When clinical impairment is adjusted, prevalence rates for ODD and CD decrease similarly across estimates. For example, Roberts et al. (2007) estimated the rates of ODD to be 2.7 %, which decreased to 1.3 % when adjusting for impairment. Similarly, Merikangas et al. (2010) estimated the rates of CD to be 2.1 %, which decreased to 1.7 % when adjusting for impairment.

In addition to considering assessment windows and clinical impairment, prevalence rates for ODD and CD vary slightly depending on age and gender. More specifically, while the above noted total prevalence rates for ODD appear to be consistent across sampled age ranges, prevalence for CD varies slightly depending on the ages of youth sampled. Primarily, as age increases, prevalence of CD increases as well. For example, lower prevalence rates for CD include children ages 8–15 (1.7–2.1 %; Merikangas et al., 2010). When 16 is the upper age limit, prevalence rates increase slightly to 2.7 % (Costello et al., 2003), and when 17 and 18 year olds are included, prevalence rate increases more substantially to 5.4 % (Roberts et al., 2007).

To our knowledge, there are few reports of recent prevalence rates for ODD by gender within the USA. Of the available reports, males (3.1 %) have a slightly higher prevalence rate than girls (2.1 %; Costello et al., 2003). Earlier reviews of the literature revealed inconsistent findings for gender differences in ODD (Lahey, Miller, Gordon, & Riley, 1999). Quantitative analyses of gender differences in prevalence rates of ODD revealed ODD is significantly more common in boys (Maughan, Rowe, Messer, Goodman, & Meltzer, 2004). A limitation of this study, however, is that estimates used clinically confirmed diagnoses of ODD. Research shows that girls are less likely to receive a clinically confirmed diagnosis of ODD (Heflinger & Humphreys, 2008), therefore these analyses may underestimate the prevalence of ODD in girls. Studies with power to detect gender differences in the examination of ODD are needed.

It is well established that CD is more prevalent in males (Lahey et al., 1999; Maughan et al., 2004). Our review of more recent prevalence rates coincides with these previous reports. Prevalence rates of CD for boys range between 2.3 % and 4.2 % (Costello et al., 2003; Merikangas et al., 2010), and decrease when impairment is considered. Prevalence rates for girls range between 2.1 % and 2.7 %, and also decrease when impairment is considered.

ODD and CD Prevalence Rates: Cross-Cultural Comparison

The aforementioned prevalence rates are not without limitations, several of the studies use samples from specific areas of the USA. For example, Costello et al. (2003) focused on a rural area of a Southern state and Roberts et al. (2007) focused on a metropolitan area within a Southwestern state. Still, these rates are likely representative of the population as a whole.

Epidemiological and cohort studies from several countries in other continents report similar prevalence rates of ODD and CD to that reported from studies in the USA: North America (Benjet, Borges, Medina-Mora, Zambrano, & Aguilar-Gaxiola, 2009), South America (Anselmi, Fleitlich-Bilyk, Menezes, Araújo, & Rohde, 2010; Fleitlich-Bilyk & Goodman, 2004; Goodman et al., 2005; Petresco et al., 2014), Europe (Ford, Goodman, & Meltzer, 2003; Frigerio et al., 2009; Heiervang et al., 2007; Kim-Cohen et al., 2005; Lynch, Mills, Daly, & Fitzpatrick, 2006; Petersen, Bilenberg, Hoerder, & Gillberg, 2006; West, Sweeting, Der, Barton, & Lucas, 2003; Zwirs et al., 2007), and Asia (Alyahri & Goodman, 2008; Farbstein et al., 2010; Gau, Chong, Chen, & Cheng, 2005; Leung et al., 2008; Pillai et al., 2008). More specifically, prevalence rates for ODD are reported to range between 1.2 % and 3.2 % when assessed in the previous 3 months, and increase with age and length of assessment window to 4.0–8.7 %; and similar to prevalence studies in the contiguous USA, rates decrease significantly when impairment is adjusted (e.g., Canino et al., 2004; Ford et al., 2003; Leung et al., 2008). Prevalence rates for CD are reported to range between .6 % and 9.0 % also decreasing when impairment is adjusted (Canino et al., 2004; Ford et al., 2003; Leung et al., 2008) and are highest among older populations and when the timeframe for assessment increases. Furthermore, CD is more prevalent in boys than in girls, with rates ranging from 1.4 % to 14.5 % compared to .4–3.5 %, decreasing to 3–4 % and 0–.9 % (respectively) when impairment is considered. Contrary to studies in the USA, there are consistent reports of gender differences in ODD in other countries, with boys expressing more symptoms than girls (Alyahri & Goodman, 2008; Farbstein et al., 2010; Fleitlich-Bilyk & Goodman, 2004; Ford et al., 2003; Kim-Cohen et al., 2005; Petresco et al., 2014; Zwirs et al., 2007).

ODD and CD Prevalence Rates: African American Youth

Given that African American youth are less likely to initiate care (Cook, Barry, & Busch, 2013) even when their mental health condition is associated with severe impairment (Merikangas et al., 2011), and African American youth are less likely to have specialty mental health care or general medical services for mental health issues (Angold et al., 2002; Costello, He, Sampson, Kessler, & Merikangas, 2014), one might expect ODD and CD to disproportionately affect African American youth.

A thorough literature search has revealed inconsistent results regarding prevalence rates for ODD and CD in African American youth. Various investigators and research teams have found prevalence rates of ODD and CD in African American youth lower or similar to Caucasian American youth (Angold et al., 2002; Costello, Keeler, & Angold, 2001; Roberts, Roberts, & Xing, 2006), prevalence rates that match that of Caucasian American youth (Angold et al., 2002; Costello et al., 2001), or prevalence rates that are higher than Caucasian youth (Bird et al., 2001). For example, Angold et al. (2002) and Costello et al. (2001) both found 3-month prevalence rates for ODD to be lower in African American youth (1.1–1.7 % and 1.5–3.6 %, respectively) compared to Caucasian American youth (2.7–4.2 % and 1.5–3.6 %, respectively) between the ages of 9 and 17. Similarly, Angold et al. (2002) and Costello et al. (2001) both reported similar 3-month prevalence rates of CD for 9-17 year old African American youth (1.4–4.0 % and 5.3 %, respectively) and Caucasian American youth (1.2–4.4 % and 5.5 %, respectively). Roberts et al. (2006) found that when the definition of disruptive behavior disorder (usually defined as just ODD and CD) included Attention Deficit/Hyperactivity Disorder, African American youth had lower prevalence for CD (African American: 5.7 %, Caucasian American: 7.5 %) and when adjusting for impairment (defined similarly to other studies), rates decreased and African American youth remained lower than Caucasian American youth (African American: 4.5 %, Caucasian American: 6.4 %).

As previously mentioned, other investigators have found higher prevalence rates of ODD and CD among African American youth compared to that of Caucasian American youth. Using a sample drawn from four geographic regions of the USA, Bird et al. (2001) as part of the National Institute of Mental Health Methods for the Epidemiology of Child and Adolescent Mental Disorders (MECA; Lahey et al., 1996) study found a prevalence rate of ODD of 9.1 % for African Americans that was higher than the rate found for Caucasians (8 %; Bird et al., 2001). Braun et al. (2008) using NHANES data found that African Americans had a higher rate of CD (2.98 %) compared to Caucasians (1.94 %), Mexicans (1.36 %), or "other Hispanics" (2.68 %). Similarly, Bird et al. (2001) in a cross-sectional study of 9–17 year olds found that African American youth had a significantly higher prevalence rate of CD (9.9 %) compared to that of Hispanics (5.8 %) and Caucasians (5.4 %). Studies that specifically examine prevalence rates among low-income African American youth generally find that the rate of CD is considerably higher compared to studies using nationally representative samples. For example, Byck, Bolland, Dick, Ashbeck, and Mustanski (2013) using a community-based sample found that the prevalence rate of CD among low-income African American adolescents was 7.7 %, which is almost 30 % higher than the rate found in studies using NCS-A data (see Kessler et al., 2012). Given that some prevalence studies show lower rates, that some show similar rates, and that others show higher rates, more research is needed to fully understand and identify factors that contribute to the discrepancy in prevalence rates found across studies.

Diagnostic Criteria

The Diagnostic and Statistical Manual of Mental Disorders (DSM) is a manual published by the American Psychiatric Association and is used by mental health professionals to make formal psychiatric diagnoses. The American Psychiatric Association released the latest version of this manual, the DSM-V, in 2013. While the prevalence rates discussed above are all based on the DSM, Fourth Edition (DSM-IV)/DSM-IV, Text Revision (DSM-IV-TR) definitions of ODD and CD, rates reported here are similar to prevalence rates estimated using the prior DSM version, DSM-III (for a review see, Canino et al., 2010; Roberts, Clifford Attkisson, & Rosenblatt, 1998; Vicente et al., 2012).

ODD Diagnostic Criteria

According to the DSM-IV, criteria for ODD include a pattern of behavior lasting at least 6 months and include at least four of the following:

1. Often loses temper
2. Often argues with authority figures/adults
3. Often actively defies or refuses to comply with adults' requests or rules
4. Often deliberately annoys people
5. Often blames others for his or her mistakes or misbehavior
6. Is often touchy or easily annoyed by others
7. Is often angry or resentful
8. Is often spiteful or vindictive

These behaviors must meet three criteria: (1) must be displayed more than what is typical for same age peers, (2) must cause significant clinical impairment in a major area of functioning (i.e., social, academic, occupational), and (3) must not occur exclusively during the course of a Psychotic or Mood Disorder. In addition, the child may not meet diagnostic criteria for Conduct Disorder, and for those older than 18, Antisocial Personality Disorder.

CD Diagnostic Criteria

According to the DSM-IV, criteria for CD include a pattern of behaviors that violate social and cultural norms and infringe upon the rights of others and can be grouped into four problematic clusters:

1. Aggression to people and animals,
2. Destruction of property,
3. Deceitfulness or theft, and
4. Serious violations of rules.

Across all clusters, three (or more) behaviors must be present for the past 12 months, with at least one present for the past 6 months. Similar to the diagnostic criteria for ODD, in addition to meeting this threshold, these behaviors must meet two additional criteria: (1) must cause significant clinical impairment in a major area of functioning (i.e., social, academic, occupational), and (2) if the individual is 18 years or older, they cannot meet criteria for Antisocial Personality Disorder.

Changes Made to DSM-V

There were several changes made from the DSM-IV-TR to DSM-V criteria for ODD and a minor, yet notable, change for CD. First, DSM-V now provides cluster types for ODD symptoms, including: angry/irritable (often loses temper, is often touchy or easily annoyed, is often angry and resentful), argumentative/defiant behavior (often argues with authority figures/adults, actively defies or refuses to comply with adults' requests or rules, deliberately annoys others, and blames others for his or her mistakes or behavior), and vindictiveness (spiteful or vindictive). Criteria for vindictiveness are now specified as at least twice within the past 6 months. Second, DSM-V now states that the symptoms cannot occur during interactions with siblings. Third, DSM-V no longer considers CD and ODD distinct constructs as the criteria for DSM-IV suggest. More specifically, ODD may be diagnosed in the presence of a CD diagnosis. Fourth, additional information concerning the severity of the symptoms based on the number of settings in which symptoms were seen was added to the DSM-V. A notable change from the DSM-IV-TR to DSM-V criteria for CD is the specification of whether an individual demonstrates lack of remorse or guilt, callousness or lack of empathy, lack of concern about performance, or shallow or deficient affect.

Given the changes from the DSM-IV-TR to DSM-V, it is likely that future studies will show a change (probably an increase) in estimated prevalence rates for ODD. As discussed above, prevalence rates for ODD decrease with age. Given the new diagnostic criteria, we may see prevalence rates of ODD increase as more clinicians will consider this diagnosis when also considering a diagnosis of CD.

Distinctions Between CD and ODD

The distinction between Conduct Disorder (CD) and Oppositional Defiant Disorder (ODD) is based on violations of legal statutes and social mores. Children with ODD do not typically engage in repeated physical assault, destruction of property, or deceit. On average, ODD-type behaviors appear 2–3 years earlier, and "the diagnosis implies more circumscribed disturbances of lesser severity than CD" (Steiner & Remsing, 2007, p. 128). Though behaviors of children with ODD and CD may overlap, there are distinctions to be made between different types of problematic behaviors.

Although ODD and CD represent very different types of behavior problems, follow-up statistics reflect the overlap between them. About 25 % of children diagnosed with ODD will later exhibit behaviors associated with CD. At least 80 % of adolescents showing symptoms of CD have a prior history of ODD. Thus, while most children with CD include a significant history and presentation of oppositional and defiant features, far fewer children with ODD will develop the more severe symptoms of CD. It should be noted, however, that there is still debate in the field whether ODD and CD are age-related manifestations of the same condition (Moffitt & Scott, 2008).

Disparity in the Diagnosis and Epidemiology of ODD and CD

An additional discussion in the field regarding ODD and CD is racial disparity. Any discussion of racial disparities in the diagnosis and epidemiology of ODD and CD must be couched within the context of the current state of epidemiological research in mental disorders of childhood and adolescence, which is still in its infancy relative to that of adults. As of the 1990s accurate information was unavailable on the number of children and adolescents in the USA with mental health disorders; a condition that led the President's Commission on Mental Illness and Health (Nemeroff et al., 2008) to highlight the need for scientifically rigorous studies to examine the incidence and prevalence of mental disorders in the USA. Responding to this need, the National Institute of Mental Health (NIMH) requested applications "to develop feasible, reliable, and valid methods for the assessment of mental disorders, risk factors, and service utilization in youths aged 9–17 years in large scale, population-based surveys" (p. 856; Lahey et al., 1996). The MECA (Lahey et al., 1996) study ushered in such studies designed to identify the distribution of mental health disorder including the more recent National Health Interview Survey (NHIS; Froehlich et al., 2007), NHANES (Braun et al., 2008; Merikangas et al., 2010), and the NCS-R (Kessler, Berglund, et al., 2005; Kessler, Chiu, Demler, Merikangas, & Walters, 2005) and NCS-A (Kessler et al., 2012).

Unfortunately, because of different methods of determining diagnostic status used in the previously reported epidemiological studies and major methodological challenges of these studies in systematically tracking the prevalence and distribution of mental disorders using nationally representative samples, our current understanding of multicultural similarities and differences in the magnitude, risk factors, course, treatment, and service utilization of mental disorders in children and adolescents is limited. In addition, the recent change to DSM-V with the inclusion of culture and cultural factors in psychiatric diagnosis, with its required changes to existing instrumentation for diagnosing and assessing mental disorders, may even further lessen our understanding of racial disparities, at least in the short-term.

Although DSM-V (American Psychiatric Association, 2013) presents a better understanding of biological and cultural variations in human psychopathology and now notes that impulse control and conduct problems often occur to some degree in developing individuals, the frequency, persistence, pervasiveness, and cross-situational consistency in behavior relative to what is normatively expected given a person's age, gender, and culture that determine whether diagnostic criteria are met for these disorders need further development (DSM-V, 2013). That is, noting that behaviors consistent with the diagnostic criteria for ODD/CD can be impacted by culture has failed to address adequately concerns of racial disparity in diagnosis and treatment of African American youth.

There are several reasons for this continued concern. First, African American youth are disproportionately exposed to environmental risk factors (e.g., SES, parental stress, harsh discipline) and environmental toxins (e.g., tobacco smoke, lead exposure) associated with problems of self-control of emotions and behaviors relative to their Caucasian counterparts (Yung & Hammond, 1997) yet their rates of treatment access are comparatively much lower (Kodjo & Auinger, 2004). Second, there is a strong association between race and misdiagnosis (McNeil, Capage, & Bennett, 2002; Worthington, 1992). For example, Loring and Powell (1988) found that the more severe labels of psychopathology were given to African Americans. Third, African

American youth who display antisocial behaviors are more likely to be referred to the justice system than to the mental health system (Teplin et al., 2002) as evidenced by their disproportionate overrepresentation in correctional facilities (Timmons-Mitchell et al., 1997). For example, while African Americans comprise one third of youth in the general population, they account for two thirds of youth in juvenile detention facilities (Soler, 2007).

The evidence is strong of racial disparities in confinement of minority youth in juvenile correctional facilities, due in part to societal factors such as economics, education, policing decisions, discrimination, and unfortunately, mental health treatment or the lack thereof. The overrepresentation of African American youth in correctional facilities is particular troubling as such "interventions" are often iatrogenic and serve to exacerbate conduct problems—one of the most consistent predictors of problem behavior is association with deviant peers. Finally, compared to Caucasians, racial/ethnic minorities have less access to mental health services, receive poorer quality services, are less likely to receive mental health services, and are underrepresented in mental health research (Feinstein et al., 1998; Garland et al., 2005; US Department of Health and Human Services, 2001; Wu et al., 2002). Furthermore, minorities are significantly less likely than Caucasians to seek mental health services (Cuffe, Waller, Cuccaro, Pumariega, & Garrison, 1995; McMiller & Weisz, 1996; Padgett, Patrick, Burns, & Schlesinger, 1994), experience greater barriers to receiving services when they do seek treatment, and are more likely to drop out of treatment once they receive services.

Given the aforementioned disparities, more strategies to facilitate African American youth and their families entering and completing evidence-based treatments (EBTs) are needed. If strategies are successful in enrolling more African American youth into EBTs, then the next logical question is what EBTs would be beneficial to African American youth with CD and ODD? We will examine this issue in next section that looks at the effectiveness EBTs for CD and ODD with African American youth and also examine if cultural adaptations are needed to further enhance their effectiveness with African American youth.

ODD and CD Treatment

Identification of effective EBTs for African American youth with CD and ODD is a major public health priority (Loeber, Burke, Lahey, Winters, & Zera, 2000). If African American youth do not receive adequate treatment early during childhood, a higher degree of impairment and unfavorable long-term prognosis is likely (Lahey, Loeber, Quay, Frick, & Grimm, 1997). An area in treatment outcome research with African American youth that has begun to receive increasingly more attention is to examine whether current EBTs are cultural appropriate in meeting the mental health needs of African American youth with CD and ODD. Specifically, researchers have begun to ask if treatments need to be culturally designed or do existing empirically supported treatments need to be adapted to be effective with African American youth? Although such questions are important they have been difficult to ask given that historically African Americans in general, and African American youth, specifically, have been underrepresented in clinical trials (USDHHS, 2001). Thus, the overwhelming majority of EBTs examined to date have largely been developed for and implemented with Caucasian youth (Eyberg, Nelson, & Boggs, 2008). The following section will review evidence-based treatments that have been to be effective in treating ODD/CD.

ODD and CD Treatments: General Population

Historically, few interventions have demonstrated effectiveness in treating serious disruptive and externalizing behaviors (e.g., delinquency, drug use)—more often than not the major reason for mental health referrals in children and adolescents

(Burns & Friedman, 1990; Jensen, Hoagwood, & Petti, 1996). More recently, however, family-based EBTs for youth with externalizing disorders have been quite encouraging to the field. Family-based treatments are superior to other treatment modalities in dealing with serious disruptive and externalizing behaviors (Diamond & Josephson, 2005). Family-based EBTs for DBDs often teach parents and other caregivers how to set limits, respond consistently and non-abusively to misbehavior, and monitor a youth's behavior and whereabouts. In addition, individual child treatments have been developed that have shown promise in addressing specific diagnostic symptoms as well as skill and behavioral deficits often observed in children and adolescents with DBDs (Burke, Loeber, & Birmaher, 2002). These treatments have included psychopharmacological treatments and cognitive behavioral therapy (CBTs). Before describing family-based treatments for ODD/CD we briefly review individual child-focused EBTs that have demonstrated effectiveness with youth presenting with ODD/CD.

Psychopharmacological treatments have demonstrated effectiveness with some ODD/CD. Psychopharmacological interventions have included mood stabilizers, typical and atypical antipsychotics, clonidine, and stimulants (Burke et al., 2002). For example, two randomized clinical trials comparing the effects of lithium to placebo reported that lithium was efficacious for short-term treatment of aggressive inpatient children and adolescents with CD (Campbell et al., 1995; Malone, Delaney, Lueber, Carter, & Campbell, 2000).

Individual EBTs, such as child-focused problem-solving skills programs (Kazdin, 1996; Webster-Stratton & Hammond 1997) and moral development interventions (Arbuthnot, 1992) have been effective in reducing DBD behaviors and building prosocial skills. Additionally, interventions in anger control/stress inoculation, assertiveness training, and rational-emotive therapy are considered probably efficacious for ODD and CD problems (Brestan & Eyberg, 1998).

Parent and family-based treatments, having been examined in numerous randomized clinical trials, are considered by many to be the treatment of choice for treating youth with DBD (Burke et al., 2002). These interventions are generally based on behavioral and systemic models of human behavior and often target child DBD by providing parents (or other caregivers) with the skills and competencies needed to effectively manage problem behavior. For example, parent management training (PMT) strategies are considered well established in treating DBDs (Brestan & Eyberg, 1998; Kazdin, 1997). Similarly, Parent Child Interaction Training (PCIT) is considered effective. In several randomized clinical trials PCIT has produced significant decreases in problem behavior in children diagnosed with ODD relative to comparison conditions (Barkley, Edwards, Laneri, Fletcher, & Metevia, 2001; Schuhmann, Foote, Eyberg, Boggs, & Algina, 1998). PCIT consists of two phases: a child-directed interaction in which parents are trained in nondirective play skills and parent-directed interaction, which focuses on improving parenting skills by teaching parents how to give clear instructions to their children, to praise children for compliance, and to punish children for noncompliance (e.g., timeout from reinforcement).

Several family-based treatments have been found to be particularly effective for conduct disorder and delinquency in adolescents (Henggeler & Sheidow, 2012). For example, Multisystemic Therapy, Functional Family Therapy, Multidimensional Treatment Foster Care, and Brief Strategic Family Therapy have significantly reduced CD and serious problem behavior in adolescents.

Overall, several psychopharmacological treatments, individual treatments, and parent and family treatments have resulted in reductions of ODD and CD problem in the general population. In the next section, we will examine the effectiveness of some of these treatments for African American youth.

ODD and CD Treatments: African American Youth

Several peer-reviewed meta-analyses and literature reviews have examined the effectiveness of EBTs in treating minority youth exhibiting externalizing disorders such as ODD and CD. For example, Huey and Polo (2008) and Ho, McCabe, Yeh, and Lau (2011) examined studies that included samples of minority youth (e.g., African American, Hispanic, Native Americans). In each of these reviews (Ho et al., 2011; Huey & Polo, 2008), treatments were classified using a treatment classification system developed by Chambless et al. (1996). This classification system classifies treatments as well established, probably efficacious, or possibly efficacious. To be classified as well established, a treatment must have had two or more between group trials conducted by independent investigators and must find that the treatment produced significantly better outcomes than a placebo or a comparison treatment condition. Probably efficacious is defined as treatments with one trial that found that a treatment produced superior clinical outcomes relative to a placebo or another treatment or two trials comparing the treatment to a no-treatment control group. Possibly efficacious treatments only require one study showing that the treatment was efficacious without conflicting evidence (Chambless & Hollon, 1998).

In addressing the issue of whether a treatment is effective with African Americans (i.e., culturally appropriate) we will also use the Chambless et al. (1996) classification system, as well as a classification framework used by Ho et al. (2011) that placed studies in one of three categories: (1) A treatment developed specifically for African American youth and evaluated using samples that include a large proportion of African American youth and families; (2) A treatment developed without African American youth in mind but evaluated using a sample that includes a substantial proportion of African American youth and their families; and (3) A treatment developed without African American youth in mind and then culturally adapted and evaluated using a sample that includes a substantial proportion of African American youth and families. Consistent with an earlier observation of the extant treatment literature, we found that the overwhelming majority of treatment outcome studies being conducted were not specifically designed with African American youth in mind.

The next section will describe treatments that fall within one of Ho et al. (2011) categories beginning with a description of a study where a treatment was developed for and evaluated with African American youth.

EBTs Developed for and Evaluated on African American Youth

Few treatments have been specifically developed for African American youth with ODD or CD and then tested specifically with African American youth. One of the few exceptions is Multiple Family Groups (MFG; McKay et al., 2011) designed for African American children with behavioral difficulties. Specifically, MFG was developed for urban African American youth (age 7–11 who met diagnostic criteria for ODD or CD) and their adult caregivers who received treatment at 13 urban outpatient clinics. MFG is 16-week group treatment that typically includes 6–8 families. MFG intervention-protocols guide each group session. These protocols were specifically designed in collaboration with urban African American parents.

The goals of MFG are to increase a parent's skills in improving family relationships (e.g., parental discipline, monitoring, family communication, family support, stronger affective bonds between youth and adult caregivers), managing parental stress, increasing emotional and instrumental supports, and reducing stigma associated with mental health care. Each of these goals were targeted as research has shown that each of these area can impact inner-city child and parent outcomes as well as families' enrollment and retention in mental health services. MFG specifically targets ODD problems, parental stress, and factors that can affect treatment engagement and retention.

In one study, 321 youth (7.79 % Caucasian American; 29.60 % African American; 48.91 % Latino American; 2.49 % Native American; 0.31 % Asian/ Pacific Islander; and 6.54 % others) from 13 outpatient clinics were randomly assigned to either MFG or standard outpatient mental health care services (McKay et al., 2011).

The study included 4 assessments (baseline, 8 weeks [midway through treatment]; post-treatment [16 weeks]; and 6-month follow-up). Each MFG session entailed five stages: (a) creating social networks; (b) information exchange; (c) group discussions; (d) individual family practice; and (e) homework assignment. Results indicated that parents in the MFG reported significantly fewer ODD symptoms in their children and significant less parental stress than parents in the comparison condition at post-treatment and 6-month follow-up. While the study found that results were not significantly different across racial groups, the findings do suggest that MFG is possibly an efficacious treatment in addressing ODD problems in African American youth.

EBTs Developed without African American Youth in Mind, Then Evaluated Treatment Effects on African American Youth

EBTs developed without African American youth in mind, but then evaluated with samples that include African American youth include cognitive behavioral therapy (CBT), parent management training, parent–child interaction therapy, and several of the family-based treatments mentioned earlier. In general, EBTs described in this section can be categorized as well established, probably efficacious, and possibly efficacious.

Multisystemic Therapy. Multisystemic Therapy (MST) is an intensive home- and community-based treatment, which focuses on the entire ecology of chronic and violent juvenile offenders: their family, peer, school, community, and individual factors (Henggeler, Schoenwald, Borduin, Rowland, & Cunningham, 2009). MST is based on nine treatment principles that, in part, enable therapists to do the following:

(a) Understand the relationship between a youth's presenting problems and the broader systemic context in which the youth is embedded (e.g., family, school, peer, community, and individual factors).
(b) Leverage systemic strengths that the youth and family may have to facilitate change.
(c) Identify and understand sequences within and between systems that may contribute to youth and family problems.
(d) Create interventions that are developmental and culturally appropriate given the youth's and family's context.
(e) Promote generalization of treatment effects by ensuring that interventions are being developed with and carried out by adult caregivers of youth.

MST is considered a well-established EBT (Ho et al., 2011) based on outcomes from a number of randomized clinical trials (Borduin et al., 1995; Henggeler, Melton, & Smith, 1992; Henggeler, Melton, Brondino, Scherer, & Hanley, 1997; Henggeler, Clingempeel, Brondino, & Pickrel, 2002; Henggeler et al., 2006)—several conducted by independent investigators (Butler, Baruch, Hickey, & Fonagy, 2011; Ogden & Halliday-Boykins, 2004; Timmons-Mitchell, Bender, Kishna, & Mitchell, 2006). In most of these randomized clinical trials there was significant African American representation. For example, 56 % of 96 participants in Henggeler et al. (1992) were African American; in Borduin et al. (1995) 30 % of 200 participants were African American; in Henggeler et al. (1997) 81 % of 155 participants were African American; in Henggeler et al. (2002) 50 % of 118 participants were African American; and in Henggeler et al. (2006) 67 % of the 161 participants were African American.

Across studies, MST produced greater reductions in criminal offending, re-arrests, time incarcerated, and substance use than comparison conditions (Henggeler et al., 1992, 1997, 2002, 2006). A long-term follow-up study of 13.7 years indicated that MST participants had significantly lower recidivism rates (50 % vs. 81 %) than participants in the comparison condition (Schaeffer & Borduin, 2005). Similarly, MST participants had fewer arrests and fewer days of confinement in adult detention centers than participants in the comparison condition. Overall, results were not significantly different across racial groups. In fact, across studies the effectiveness of MST has not been moderated by demographic characteristics such as age, race, gender, social class, or pretreatment criminal offending (Henggeler et al., 2009).

One question that has risen in the evidence-based practice movement is what happens when an EBT is transported out of the comfortable and rather sterile environments of academic settings where the vast majority of randomized clinical trials are conducted. MST is one of the few EBTs that has generated evidence of its efficacy in effectiveness contexts (i.e., real-world practice settings). For example, a randomized clinical effectiveness trial of MST was conducted by an independent investigator that found outcomes favoring MST (Timmons-Mitchell et al., 2006). Timmons-Mitchell et al. (2006) randomly assigned 93 youth (i.e., 77.5 % Caucasian American youth, 15.5 % African American youth, 4.2 % Latino American youth, and 2.8 % Bi-racial youth) to MST or a treatment as usual (TAU) comparison condition. MST youth had a lower recidivism rate than TAU youth at 18-month follow-up. Results were similar across racial group, which indicate that MST is an effective treatment for African American youth even when implemented by independent investigators in effectiveness contexts. It should be noted however, that reductions in recidivism in this trial represented a lower effect size than typically found in efficacy trials conducted by MST model developers. This lower effect size is not surprising as effect sizes are dramatically reduced when EBTs are delivered in real-world practice settings where the majority of African American youth are treated. Taken together, MST is a well-established EBT that was not developed with African American in mind, but has proven effectiveness with African American youth.

Parent Management Training The goals of Parent Management Training (PMT) are to reduce problems, such as physical and verbal aggression, property destruction, defiance, and noncompliance. Intervention strategies include didactic teaching, role-plays, modeling, practice, homework (to teach adult caregivers how improve their problem-solving), monitoring, and discipline skills. PMT has been shown to be an efficacious treatment for youth with conduct and oppositional defiant problems (Miranda et al., 2005).

One empirically validated PMT is the Incredible Years (IY) Parent Program (Taylor & Biglan, 1998; Webster-Stratton, Hollinsworth, & Kolpacoff, 1989; Webster-Stratton & Hammond, 1997). IY is a school-based prevention program for low-income families. In one study, a racially diverse sample ($N=426$, 17 % African American, 6 % Hispanic American, 6 % Multiracial, 4 % Asian American, and 4 % Native American) enrolled in Head Start was used.

Results demonstrated that IY participants across racial groups demonstrated significantly fewer conduct, noncompliance, and negative affect problems than youth in the comparison condition. Additionally, IY youth demonstrated significantly higher social competence than youth in the comparison condition (Webster-Stratton, 1998).

In another IY study (Reid, Webster-Stratton, & Beauchaine, 2001), 370 Caucasian American, 120 African American, 71 Hispanic American, and Asian American mothers and Head Start youth were randomly assigned to IY or a comparison condition. IY mothers were more positive, competent, consistent, and satisfied than comparison condition mothers at post-treatment. IY youth demonstrated greater positive affect than comparison youth at 1-year follow-up. Results indicate that IY is an effective treatment for African American youth. Significant differences across racially diverse groups during treatment, at post-treatment and at follow-up were not reported. However, there were significant differences between Caucasian families and minority families (17 % vs. 28 %) who chose not to enroll in the program indicating recruitment of minority families into an IY treatment program may be more difficult than recruitment of Caucasian American families. Other researchers have found similar results (Harachi, Catalano, & Hawkins, 1997).

Cognitive Behavioral Therapy and Skills Training Although not adapted for African American youth, several Cognitive Behavioral Therapy (CBT) interventions have been found to reduce conduct- and oppositional-related problems in African American youth. Larkin and Thyer (1999) used several CBT interventions including problem-solving, self-instructions, modeling, role play, social skills training, and covert imagery to treat a group of randomly assigned ethnically diverse elementary school youth (32 % African American, 19 % Caucasian American, 5 % Asian American, 2 % Latino American, and 2 %) with behavioral problems. Youth across ethnic groups improved on perceived self-control and self-esteem measures.

Social-Cognitive Interventions with African American adolescents have been examined in three investigations (Hudley & Graham, 1993; Huey & Rank, 1984; Lochman, Coie, Underwood, & Terry, 1993). Lochman et al. (1993) examined the effectiveness of a program entitled, Social Relations Interventions Program for aggressive, rejected children with social-cognitive difficulties. These researchers used social problem-solving, positive play training, group skill training, and strategies to deal with strong negative emotions to treat 52 African American aggressive and rejected, and nonaggressive and rejected youth who were randomly assigned to the intervention condition or control condition. Post-treatment and 1-year follow-up data indicated the intervention condition was effective only for aggressive and rejected youth with reductions in aggression and social rejection and improvements in peer prosocial behavior.

Hudley and Graham (1993) examined the effectiveness of an Attributional Intervention to train aggressive African American youth not to infer hostile intent in negative social encounters to ambiguous causes. These researchers randomly assigned 100 African American youth (aggressive and nonaggressive) to Attributional or Attention Control conditions. Youth in the Attributional Intervention group were less likely to infer hostile intent in ambiguous situations, less likely to endorse hostile retaliation or to use verbally aggressive behaviors at post-treatment. Teachers also rated the Attributional Intervention youth as less aggressive.

Huey and Rank (1984) examined the effectiveness of a Group Assertiveness Training on 48 aggressive African American youth who were randomly assigned to Group Assertiveness Training, a discussion group, or a no-treatment group. Participants in the Group Assertiveness Training exhibited less aggressive behavior than participants in the other two groups.

Parent–Child Interaction Therapy Parent–Child Interaction Therapy (PCIT: Eyberg & Robinson, 1982) uses developmental principles to teach parents behavioral interventions to address disruptive behaviors in young children. PCIT teaches youth's adult caregivers an Authoritative Parenting Style. An Authoritative Parenting Style includes nurturance, good communication, and firm control. Authoritative parenting has been linked to reductions in child behavior problems in a number of studies (e.g., Linver, Brooks-Gunn, & Kohen, 2002) that included African American families (Querido, Warner, & Eyberg, 2002).

Fernandez, Butler, and Eyberg (2011) examined the impact of PCIT on a small group of low socioeconomically disadvantage American families ($N = 18$) with preschoolers with disruptive disorders. Following PCIT mothers of preschoolers reported significant improvements in their youth's disruptive disorders but not in maternal depressive symptoms or parenting stress. Unfortunately, there was a 56 % dropout rate for these African American families from this PCIT trial. Although favorable behavior changes occurred for disadvantage young African American youth when the youth and families completed treatment, recruitment, engagement, retention, and addressing treatment barriers, such as maternal depression and parental stress, need to be a focus of future studies. Overall, this study demonstrates that PCIT is a possibly efficacious treatment in addressing disruptive problems.

Multicomponent Treatments Several researchers have examined the synergistic effects of treatments that include multicomponents on the conduct-related problems in African American youth. Kazdin, Siegel, and Bass (1992) examined the impact of three interventions conditions (i.e., Problem-Solving Skills Training [PSST] alone, Parent Management Training [PMT] alone, and PSST and PMT combined) in a randomized trial of 30 African American and 60 Caucasian American youth with severe antisocial behaviors. PSST combines CBT techniques to teach problem-solving skills. PMT teaches parents positive reinforcement, shaping, negotiating and contracting, time out, and appropriate reprimands. While all three conditions led to significant improvements in youth problem behavior (decreased delinquency and aggression, increased prosocial behavior), combining PSST and PMT led to significantly more improvements in antisocial behavior, delinquency, and symptoms of parental dysfunction. Additionally, the combined PSST and PMT condition placed a greater proportion of youth into the nonclinical range of functioning at post-treatment (Kazdin et al., 1992).

Coping Power (Lochman, Lenhart, & Wells, 1996) is a multicomponent prevention intervention that has been used effectively with African American youth. Coping Power consists of a child component (developed from an Anger Coping Program [Lochman, Lampron, Gemmer, & Harris, 1987]) that teaches contingency reinforcement, alternative solutions, problem-solving, anxiety reduction, and anger-reduction skills. Coping Power includes a parent component (derived from social learning theory-based parenting programs for aggressive youth [Patterson, Reid, Jones, & Conger, 1975]) that teaches parents to identify prosocial and disruptive behaviors, reward appropriate behaviors, set rules, and to apply consequences. To examine the efficacy of Coping Power, 116 African American youth and 77 Caucasian American males were randomly assigned to Coping Power with child only component, Coping Power with both child and parent components, or a no-treatment control condition. Results demonstrated that Coping Power improved adolescent males' social informational processing (e.g., attributions related to aggression), temperament, and views of their parents being consistent with parenting. The two Coping Power interventions at 1-year follow-up assessment led to greater reductions in youth's reports of delinquent behavior and parents' report of youth's alcohol and marijuana use, and teacher-rated improvements in youth's school performance than the control condition. Moreover, parents in the Coping Power condition with both child and parent components reported greater reductions in their youth's substance use and delinquent behavior than parents in the other two conditions. Additional studies of Coping Power (Lochman & Wells, 2002a, 2002b, 2003) have continued to demonstrate Coping Power's favorable results with African American youth.

Although the aforementioned treatments were not designed with African American youth in mind, they have produced significant reductions in conduct and oppositional problems at post-treatment and follow-up assessments for African American youth. Of the interventions reviewed, only one treatment, MST, is considered well-established EBT. Five treatments (parent management-based protocols [IY], two CBT-based protocols [Attributional Treatment and Group Assertiveness Training], and two multi-component treatments [the Coping Power Program and Combined PSST+PMT]) are considered probably efficacious. Three treatments (Cognitive Behavioral Group therapy, Social Relations Interventions, and PCIT) are considered possibly efficacious for African American youth. Overall, results indicate that the aforementioned treatments can deliver positive treatment outcomes for African American youth with conduct and oppositional problems.

Conclusions

As previously mentioned, DBDs among children and adolescents have become a major public health concern for many parents, community leaders, policy makers, clinicians, and researchers. This concern is particularly heightened for African American youth who are exposed to a number of factors (e.g., low SES) that increase their risk for developing a DBD (Crystal et al., 2009).

In the general population, the total prevalence rates for ODD appear to be consistent across sampled age ranges, whereas the prevalence rate for CD varies slightly depending on youth ages. Primarily, as youth's age increases, prevalence of CD increases as well. Regarding gender, reports of recent prevalence rates for ODD by gender within the USA indicate that males (3.1 %) have a slightly higher prevalence rate than girls (2.1 %) (Costello et al., 2003). It is well documented that CD is more prevalent in males (Lahey et al., 1999; Maughan et al., 2004). Epidemiological and cohort studies from several countries report similar prevalence rates for ODD and CD to that reported from studies in the USA.

Given that African American youth are less likely to enter care (Cook et al., 2013) even when their mental health condition is associated with severe impairment (Merikangas et al., 2011), and African American youth are less likely to have specialty mental health care or general health care services for mental health issues (Angold et al., 2002; Costello et al., 2014), it would be reasonable to expect that ODD and CD to disproportionately affect African American youth. A thorough search of the literature, however, has revealed mixed results regarding prevalence rates for ODD and CD in African American youth. As noted above researchers have found that prevalence rates for ODD and CD among African American youth are either lower (Angold et al., 2002; Costello et al., 2001; Roberts et al., 2006) or similar to that of their Caucasian counterparts (Angold et al., 2002; Costello et al., 2001), whereas other investigators have found higher prevalence rates of ODD and CD in African American youth compared to that of Caucasian youth (Bird et al., 2001; Braun et al., 2008; Byck et al., 2013).

While the discrepancy in prevalence rates can be attributed to methodological differences in studies (types of measures used to identify disorder, regional versus national sample, geographical location from which a sample is drawn, etc.) these rate differences may also reflect that there is still much we need to learn to assess, diagnose, and treat African American youth. As such, additional research is necessary that focuses specifically on identifying the circumstances under which prevalence rates for African American youth are similar to or different than those of other racial and ethnic groups.

In addition to prevalence rates, we examined current diagnostic criteria for ODD and CD in the recently released DSM-V. We noted several changes that were made from the DSM-IV-TR to DSM-V criteria for ODD and CD. For example, one change is that DSM-V no longer considers CD and ODD distinct constructs as the criteria for DSM-IV suggested, with ODD now being allowed to be diagnosed in the presence of a CD diagnosis. In addition, with the inclusion of culture and cultural factors into DSM nomenclature it is likely that future epidemiological studies will show an increase in estimated prevalence rates for ODD and CD.

Unfortunately, the inclusion of culture and cultural factors into DSM-V (American Psychiatric Association, 2013) has failed to squelch concerns about racial disparity in diagnosis and treatment of African American youth. There are several reasons for continued concern. First, African American youth are disproportionately exposed to a host of environmental risk factors (Yung & Hammond, 1997); have lower access rates to treatment, particularly EBTs, have higher rates of misdiagnosis (McNeil et al., 2002; Worthington, 1992); and have a higher likelihood of being referred to the criminal justice system than to the mental health system (Teplin et al., 2002) as evidenced by their disproportionate overrepresentation in the correctional facilities (Timmons-Mitchell et al., 1997).

Given the aforementioned disparities, strategies are needed to facilitate African American youth and their families entering into and completing EBTs are sorely needed. The latter point is especially critical given that meta-analyses conducted by Huey and Polo (2008) clearly indicate that when AA youth enter and complete an EBT their rate of improvement is consistent with that of Caucasian youth. If African American youth can be more successful in entering and completing EBTs, the next logical question is how effective are these EBTs with African American youth? We began to explore this question by reviewing the effectiveness EBTs for CD and ODD in African American youth and exploring if adaptations to these treatments are needed. We examined EBTs used to address CD and ODD in African youth with two frameworks (Ho et al. 2011; Huey & Polo, 2008).

Regarding treatments developed for and tested with African American youth, we found that very few treatments have been developed and tested specifically for African American youth with CD and ODD. MFG was one exception. We considered MFG as a possibly efficacious treatment.

Concerning EBTs developed without African American youth in mind, but evaluated treatment effects on African American youth, we found a greater number of treatments. Although the treatments were not designed with African American youth in mind, they have produced significant reductions in conduct and oppositional problems at post and follow-up treatment assessment periods. One treatment in this group, MST, is considered a well-established EBT. Five other treatments (parent management-based protocols [IY], two CBT-based protocols [Attributional Treatment and Group Assertiveness Training], and two multicomponent treatments [the Coping Power Program and Combined PSST+PMT]) are considered probably efficacious. Three treatments (Cognitive Behavioral Group therapy, Social Relations Interventions, and PCIT) are considered possibly efficacious for African American youth. Overall, results indicate that the aforementioned treatments can deliver positive treatment outcomes for African American youth with CD and ODD problems.

Although several unadapted EBTs had produced favorable results with African American youth with CD and ODD, the question of whether treatment effect varied due to ethnicity remains mostly unanswered due the overall small number of studies and sample sizes. Cautiously, one could suggest that the very limited literature seem to indicate that these treatments were not more efficacious or effective for different ethnic groups. This assertion is consistent with some researchers (Kazdin, 1993) who have asserted that there is little empirical support for the superiority of culturally adapted treatments over unadapted treatments. Other researchers (Forehand & Kotchick, 2002) have argued that culturally adapted treatments are necessary and worthwhile in certain circumstances. Given our findings related to issues pertaining to enrollment, retention, and completion of some CD and ODD treatments by African American youth, support for adaptation in certain situations can be argued. Perhaps, a reasonable middle ground has been proposed by Lau (2006) who suggested that ethnic-specific treatment adaptation may be necessary when the available evidence shows significant variability in outcome across ethnic groups.

Given that EBTs for CD and ODD in African American youth are in their infancy, we concur with Huey and Polo's (2008) recommendation to use EBTs as the first choice for interventions for African American youth with CD and ODD. As mentioned previously, there are a number of EBTs for CD and ODD in African American youth that are well established, probably efficacious, or possibly efficacious. Similar to Ho et al. (2011), we also suggest that researchers examine the effectiveness of unadapted and adapted EBTs for African American youth with CD and ODD.

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Anxiety and Obsessive-Compulsive Disorder

10

Ryan C.T. DeLapp, Monnica T. Williams,
Darlene M. Davis, and Broderick A. Sawyer

Introduction

African American youth are underrepresented in studies examining the efficacy of treatment for symptoms of anxiety, excessive worrying, and obsessive-compulsive behaviors. Despite this limitation, it is important to utilize the few extant studies that provide recommendations for implementing empirically supported treatment in African American youth to optimize mental health services for this population. As such, the following chapter provides an overview of existing literature that can be used to guide mental health professionals in the treatment of African American children and adolescents. Specifically, this chapter highlights important sociocultural factors that influence symptom expression, provides a general overview of current empirically supported treatments, and identifies important cultural considerations for the application of such treatments for pediatric anxiety and obsessive-compulsive disorders (OCDs).

Child and Adolescent Anxiety

Pediatric anxiety, including generalized anxiety disorder, separation anxiety, and social anxiety disorder, is experienced by as many as 31.9 % of children and adolescents in the USA (Bufferd, Dougherty, Carlson, Rose, & Klein, 2012; Merikangas et al., 2010). These disorders can lead to impairments in school attendance, academic performance, interpersonal relationships, and family functioning (Ginsburg & Schlossberg, 2002). Prior research has found that adolescents with an anxiety disorder are two to three times more likely to develop an anxiety disorder or depression in adulthood (Pine, Cohen, Gurley, Brook, & Ma, 1998). For African American youth, rates of anxiety disorders can range between 6.7 % and 7.9 % (Merikangas et al., 2010; Roberts, Roberts, & Xing, 2006) and may be similar relative to other ethnic groups (Angold et al., 2002). However, some studies have found the prevalence of anxiety disorders to be greater in African Americans (Merikangas et al., 2010; Roberts et al., 2006) with African American youth endorsing significantly more separation anxiety relative to European American youth (Angold et al., 2002; Compton, Nelson, & March, 2000). Overall, the prevalence of childhood and adolescent anxiety disorders among African American youth, especially when placed within the appropriate sociocultural context, warrants an understanding of available treatments for pediatric

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R.C.T. DeLapp • M.T. Williams (✉) • D.M. Davis
B.A. Sawyer
Department of Psychological & Brain Sciences,
Center for Mental Health Disparities, University of
Louisville, Louisville, KY 40292, USA
e-mail: m.williams@louisville.edu

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anxiety as well as considerations on how these treatment options can best be tailored to the needs of this population.

Generalized Anxiety Disorder GAD is characterized by excessive anxiety and worry that is difficult to control and persists for at least six months (American Psychiatric Association, 2000, 2013). More specifically, the apprehensive expectation that a feared event will occur is out of proportion to its true likelihood. For children, the focus of the worry is often performance-oriented or related to their competence in a given area (American Psychiatric Association, 2013). Additionally, Pina, Silverman, Alfano, and Saavedra (2002) demonstrated in a sample of 111 children and adolescents (3.6 % African American) that domains of worry can differ based upon the child's age. In particular, according to self-report for younger children, excessive worries related to health of self, family, and school were approximately 10 times more likely to be endorsed by children diagnosed with GAD than children who did not endorse worries in at least one of those domains. However, based upon adolescent self-report, Pina and colleagues found that adolescents who endorsed worries related to health of self and health of others were approximately 25 times more likely to be diagnosed with GAD than adolescents who did endorse worries in at least one of these domains. Regardless of the child's age, the focus of worry can shift from one domain to another throughout the course of GAD. Moreover, the excessive worry in children and adolescents is accompanied by at least one of the following: restlessness, fatigue, difficulties with concentration, irritability, muscle tension, and sleep disturbances (American Psychiatric Association, 2000, 2013). In a sample of 62 children ages 7–17 years of age (0 % African American), Tracey, Chorpita, Douban, and Barlow (1997) found that the child's endorsement of these symptoms associated with worry increased with child age, indicating that older children are more likely to endorse these symptoms. Lastly, according to the DSM-5, there are several factors that differentiate subthreshold from clinically diagnosable worry (American Psychiatric Association, 2013). In particular, the excessive worries captured by GAD cause considerable impairment or distress in important areas of a child's life (e.g., school, family, or social), whereas typical, daily worries do not reflect a similar degree of impairment or distress and are perceived as more manageable in nature (American Psychiatric Association, 2013). Also, the worries associated with GAD are focused on a wider variety of life circumstances and typically occur for a longer duration of time (American Psychiatric Association, 2013).

Separation Anxiety Disorder SAD is defined by excessive and developmentally inappropriate fear or anxiety associated with being separated from important attachment figures, such as one's parents (American Psychiatric Association, 2000, 2013). In children and adolescents, the core fear of separation must be characterized by at least three out of eight symptoms, such as marked distress when anticipating or experiencing separation from home, persistent fears about the well-being of a loved one (e.g., contracting an illness or death), or extreme reluctance in going places due to a fear of potential separation (American Psychiatric Association, 2000, 2013). Additionally, the child or adolescent must experience considerable impairment or distress in an important area of their life (e.g., school, family, or social; American Psychiatric Association, 2000, 2013). According to Allen, Lavallee, Herren, Ruhe, and Schneider (2010), there may be disparities in child-reported and parent-reported SAD symptoms, resulting in subtle differences regarding diagnostic impression. In particular, parents reported significantly more SAD symptoms compared to their children, causing more diagnoses based upon their report. Moreover, the most frequently endorsed SAD symptom by parents was repeated distress caused by the anticipation or experience of separation from home or important attachment figure; whereas for children, they reported a reluctance to go to sleep without a major attachment figure near or having to sleep away from home most frequently (71.4 %). Also, researchers found evidence suggesting that parents are better reporters of impairment whereas child-report is a more accurate indicator of distress. Altogether, Allen and colleagues proposed that their findings may be influenced by their predominantly White, Swiss sample (0 % Black) consisting of parent-referred participants, which may contribute to the parents heightened endorsement of SAD symptoms. Nonetheless, these findings highlight the importance of utilizing multi-informant reports to garner a more comprehensive understanding of the child's SAD symptomology (Allen et al., 2010). Particularly, the use of a multi-informant assessment protocol (e.g., parent, child, and teacher) is germane when working with African American youth considering that there is such a distinct paucity of literature outlining any racially specific presentations of SAD. By utilizing such an assessment protocol, it may increase the diagnostic validity and subsequently inform the client's treatment goals.

Previously, the DSM-IV required the onset of SAD symptoms to occur prior to age 18 (American Psychiatric Association, 2000); however, the DSM-5 permits a diagnosis of SAD in adults as long as symptoms have been present for approximately six months (American Psychiatric Association, 2013). Such changes are bolstered by findings that a considerable number of adults experience the onset of these symptoms in adulthood (Shear, Jin, Ruscio, Walters, & Kessler, 2006). Consistent with the DSM-IV-TR criteria, the DSM-5 continues to require that SAD symptoms are present for at least four weeks in children and adolescents. Moreover, evidence has demonstrated that approximately 36.1 % of adult cases of SAD first onset during childhood (approximately 12 % of African Americans; Shear et al., 2006), which emphasizes the potentially chronic nature of the disorder and highlights the importance of early intervention for youth with SAD.

Social Anxiety Disorder SoD is characterized by a fear or marked anxiety of at least one social situation in which others may evaluate the individual. A core concern for individuals with SoD is the fear of being negatively evaluated or potentially humiliating themselves in a social setting or during a social interaction. More specifically, for children and adolescents, the anxiety and fear they experience must not be circumscribed to interactions with adults, but must occur in their interactions with peers. Moreover, when in social situations where they feel they will be negatively evaluated due to various concerns (e.g., acting in an odd way, showing signs of anxiety), children and adolescents experience fear, anxiety, or other child-specific behaviors, such as crying, tantrums, or freezing. Regarding changes in the diagnostic criteria that are relevant to children and adolescents, the DSM-5 no longer includes a "Generalized" specifier to characterize individuals who fear "most social situations," but now includes a "Performance only" specifier to describe individuals whose fears are primarily related to speaking or public performance. Despite the elimination of the "Generalized" specifier, Kerns, Comer, Pincus, and Hoffmann (2013) provide evidence suggesting that there is a significant cluster of adolescents who still "fear most social situations." Specifically, in their sample of 204 adolescents (22 % of whom were identified as youth of color), 64.2 % of adolescents diagnosed with SoD were specified as Generalized, which occurred most often among older youth and was significantly predictive of depressive symptoms. Also, Kerns and colleagues examined the relevance of the "Performance only" specifier in adolescents and determined that 0 % of their sample was characterized by this specifier. Although the aforementioned findings suggest that the Generalized specifier is still a valid descriptor in adolescents, there is evidence suggesting the application of the Generalized specifier is variably applied by clinicians and that the content-area of performance only fears have garnered considerable evidence in individuals with SoD (Bögels et al., 2010). Lastly, the DSM-5 has included criteria explaining that a child's fear or anxiety is deemed excessive if it is "out of proportion to the actual threat posed by the social situation and to the sociocultural context" (American Psychiatric Association, 2013).

Pertaining to African American youth, there are several unique sociocultural factors endemic to this population that must be considered when interpreting any socially anxious behaviors. In particular, Chapman, DeLapp, and Williams (2013) propose that for ethnic minorities (e.g., African American youth), experiences of race-based stress (e.g., discrimination) and acculturative stress are important to consider when diagnosing and using cognitive behavioral therapy to treat SoD. Specifically, Hunter and Schmidt (2010) conceptualize that African Americans with social anxiety might experience more distress from having to perform a given task (e.g., speech, presentation) in front of a small, all-White audience relative a larger, all-African American audience. In such cases, the salience of one's minority status (e.g., being the only African American) and an awareness of the pathological stereotypes often linked with their minority status (Williams, Gooden, & Davis, 2012) may increase threat-appraisals in social settings where African American youth must engage in anxiety-provoking social interactions. Along these lines, "an awareness of an identity (e.g., racial identity) that is negatively stereotyped to perform inferiorly" (or stereotype threat; Chapman et al., 2013, p. 166) can be theorized to be a racially specific factor influencing the performance anxiety for African American youth. Moreover, given that individuals are most susceptible to stereotype threat when the stereotyped identity is self-relevant and the performance domain is appraised as threatening (Steele, 1997), it seems plausible that African American youth whose racial identity is particularly salient will experience more anxiety in social situations where he/she is concerned about confirming negative stereotypes about his/her ingroup (e.g., African Americans are lazy, unintelligent, violent; Williams et al., 2012).

In summary, the diagnostic criteria for GAD, SAD, and SoD have largely remained unchanged between the DSM-IV-TR and the DSM-5, except for subtle changes in age restrictions (i.e., SAD) and specifiers (i.e., SoD). Also, for the purposes of this chapter, we have only included a description of these three disorders due to the increased comorbidity of these disorders in children and adolescents and because these disorders have yielded a similar response to empirically supported treatments of pediatric anxiety (for a more detailed review, see Strawn, Sakolsky, & Rynn, 2012).

Sociocultural Context of Anxiety in African American Youth

Aside from the identification of effective interventions that can minimize the distress and impairment experienced by anxious youth, it is also important to understand relevant factors that may uniquely influence symptom expression (Cooley & Boyce, 2004). As such, a general review of the literature has identified individual characteristics and environmental factors that help provide a sociocultural context for the expression of anxiety in this population.

Of the studies solely focusing on African American youth, somatic complaints appear to be a particularly salient factor for anxiety compared to children of other ethnicities (McLaughlin, Hilt, & Nolen-Hoeksema, 2007). In particular, the relevance of physical sensations in African American youth has been concurrently predictive of anxiety symptoms (Gray, Carter, & Silverman, 2011) and has demonstrated the ability to predict the future severity of anxiety symptoms six months following the initial assessment (Kingery, Ginsburg, & Alfano, 2007; White & Farrell, 2006). Specifically, evidence suggests that the frequency of somatic complaints can differentiate highly anxious African American youth from low anxious youth and that somatic sensation is particularly germane to the anxiety expression of African American adolescent females (Kingery et al., 2007). Additionally, several somatic complaints that appear particularly relevant to highly anxious African American youth include feeling tense, getting shaky, being jumpy, hands shaking, dizziness, chest pains, racing heart, stomach sickness, and sweaty hands (Kingery et al., 2007; White & Farrell, 2006). Furthermore, the fear of somatic sensations associated with anxiety (or anxiety sensitivity) has been shown to be a significant predictor of anxiety in African American youth as well. In particular, Gray and colleagues (2011) compiled data from 266 elementary age African American youth to demonstrate the significant relationship between anxiety sensitivity and various anxiety symptoms. Notably, researchers found that African American youth with high anxiety sensitivity experienced greater physical anxiety symptoms, social anxiety, separation anxiety, and harm avoidance (Gray et al., 2011).

Given that the frequency and fear of somatic sensations appears to be quite pertinent to the expression of anxiety in African American youth, it is also important to understand what factors are associated with physical symptoms of anxiety in this population. Evidence suggests that parenting factors, such as parental control (or the perceived denial of personal autonomy), can impact the endorsement of anxiety sensitivity in African American youth (Gray et al., 2011; Nebbitt & Lambert, 2009). While Gray and colleagues did not find that parental acceptance (or perceived parental warmth and acceptance) was related to anxiety sensitivity, their findings indicated that African American youth who perceive their parents as controlling endorsed greater anxiety sensitivity, which in turn was associated with higher ratings of anxiety symptoms. Moreover, evidence suggests that the influence of parenting factors on anxiety sensitivity may be moderated by child age given that Nebbitt and Lambert (2009) found that environmental factors (e.g., neighborhood context, peers) were more salient predictors for African American adolescents. In particular, their findings suggest that neighborhood context (e.g., perceived neighborhood hazards) and peer influence (e.g., “exposure to delinquent peers”) are more predictive of anxiety sensitivity than parenting (e.g., parental encouragement and monitoring) for their sample, which consisted of African American adolescents residing in low-income, urban environments. Altogether, these findings highlight the relevance of somatic complaints to the experience and expression of anxiety symptoms in African American youth, which has been proposed as a common facet of anxiety in the African American community (Hunter & Schmidt, 2010). Moreover, it is suggested that African Americans’ description of anxiety includes more physical symptoms rather than cognitive-affective symptoms due to the heightened susceptibility of certain physical ailments (e.g., cardiovascular diseases) in this population (Hunter & Schmidt, 2010). Hunter and Schmidt (2010) propose that African Americans may be more likely to endorse physical symptoms of anxiety due to the higher incidence of these physical ailments in this population and a desire to avoid cultural stigma attached to mental illness. As such, the apparent salience of somatic sensation to African American youth provides a sociocultural context for working with this population and their families.

It is also important to highlight the potential influence of environmental climate on anxiety symptoms in African American youth. Evidence shows that impoverished and violent neighborhoods do not uniquely impact traumatic disorders and can contribute to the overall psychological stress of this population (Copeland, 2005). For example, community violence was associated with later self-reported anxiety (measured by the Revised Children’s Manifest Anxiety Scale; Reynolds & Richmond, 2002) in a socioeconomically diverse urban sample of middle school-aged youth from a New York City school district located in a high-risk area for violence (32 % African American; Goodearl, Salzinger, & Rosario, 2014). This study demonstrated that protective factors, like peer social support, were only influential at lower levels of exposure to violence, indicating that chronic violence exposure can overburden available resources and influence anxiety expression. Additionally, Slopen, Fitzmaurice, Williams, and Gilman (2012) utilized a sample from inner city Chicago (35.97 % African American) and found that the risk of GAD was higher for adolescents with greater exposure to neighborhood violence, traumatic news, and violence in multiple settings when compared to adolescents with low violence exposure. As indicated by these studies, it is imperative that the environmental and socioeconomic context of African American youth be considered when interpreting the expression of chronic worry, social anxiety, and separation anxiety within this population as factors such as violence exposure, can contribute to the onset and expression of anxiety.

Finally, extant literature has also identified family components that are relevant to the manifestation of pediatric anxiety. Ginsburg and Schlossberg (2002) summarize existing family studies that provide support for the role of family in childhood anxiety from two perspectives: (1) anxious parents are more likely to have children diagnosed with anxiety ("top down" perspective) and (2) anxious children are more likely to have parents diagnosed with an anxiety disorder ("bottom up" perspective), which suggests that anxiety transmission within families is bidirectional. Aside from the influence of biological predispositions (e.g., genetics, temperament), there are several parental behaviors that can act as environmental vulnerabilities in pediatric anxiety. Particularly, evidence suggests that parental over-control (restricting child autonomy and individuality using excessive commands and instruction), overprotection (extreme protective behaviors without cause or reason), modeling of anxiety (behaviorally exhibiting anxiety responses in anticipation or presence of a stimuli), reinforcement of avoidant behaviors (condoning or validating child's avoidance of feared stimuli), and rejection/criticism (excessively judgmental or critical towards child) are related to higher levels of anxiety in children (Ginsburg & Schlossberg, 2002).

Regarding African American youth, there is support for the familial transmission of anxiety in African American families as evidenced by Chapman, Petrie, Vines, and Durrett (2012) finding that African American youth of parents with high anxiety were nearly four times more likely to have an anxiety diagnosis. In terms of specific parenting behaviors, evidence has yielded mixed findings concerning whether parental control increases anxiety symptoms within African American youth (Carter, Sbrocco, Lewis, & Friedman, 2001; Gray et al., 2011). Some researchers argue that a highly protective, authoritarian, and demanding environment may be perceived as a buffer against harmful environmental stressors encountered by African American youth (e.g., community violence), thus resulting in less anxiety symptoms (Carter et al., 2001). However, as mentioned previously, Gray and colleagues (2011) found that child-reported parental control was predictive of more anxiety symptoms (e.g., separation anxiety and anxiety sensitivity), thereby suggesting that parental control may increase the expression of anxiety symptoms in elementary school-aged African American children. Moreover, parental care and acceptance have demonstrated negative relationships with anxiety symptoms in African American youth, suggesting that the absence of a warm and loving parent–child bond is related to more anxiety in African American children (Gray et al., 2011). Finally, nascent literature has also demonstrated that childhood familial factors, such as adaptive coping and effective communication, are related to anxiety symptoms in adulthood (Sawyer, Williams, Chasson, Davis, & Chapman, 2015). Altogether, these findings demonstrate that an understanding of familial factors is pertinent to the current and potentially future anxiety symptoms of African American youth.

Psychosocial Treatment: Treatment Outcomes

Cognitive behavioral therapy (CBT) has been recognized as the most effective psychosocial treatment approach in ameliorating symptoms associated with separation anxiety, chronic worry, and phobias in children and adolescents (Miranda et al., 2005; Mohatt, Bennett, & Walkup, 2014); CBT for childhood and adolescent anxiety typically includes modules to teach coping skills (e.g., relaxation, understanding of anxious feelings, cognitive strategies) intended to help the child manage her/his anxiety and opportunities for the child to practice the acquired skills (e.g., graded in vivo exposures, cognitive restructuring, and problem solving; Cobham, Dadds, & Spence, 1998). Existing literature has supported the efficacy of CBT as evidenced by findings of 50–80 % of anxious children experiencing short-term improvement (Cartwright-Hatton, Roberts, Chitsabesan, Fothergill, & Harrington, 2004; Ginsburg & Schlossberg, 2002; Wood, Piacentini, Southam-Gerow, Chu, & Sigman, 2006) and CBT has yielded medium to large effect sizes when compared to a waitlist control (WL) group (Kendall, Hudson, Gosch, Flannery-Schroeder, & Suveg, 2008). Notably, randomized control trial studies establishing the efficacy of CBT in American youth have included a range of 2.5–22 % of African American children and adolescents within their samples, which questions the generalizability of the efficacy studies for CBT in this population (Breland-Noble, Childers, & Boyce, in press; Kendall, 1994; Kendall et al., 2008; Wood et al., 2006).

During the treatment of childhood and adolescent anxiety, family involvement can be kept minimal (e.g., short mid-treatment updates and brief discussions about skills learned by the child at the end of sessions; Wood et al., 2006) or treatment can include an adjunctive family training component that teaches various skills (e.g., psychoeducation, cognitive restructuring, contingency management, parent anxiety management; Ginsburg & Schlossberg, 2002). There are mixed findings regarding the importance of adding a family component as some studies have demonstrated that CBT-plus-family component (FCBT) is superior to child-only CBT in treating childhood anxiety (Barrett, Dadds, & Rapee, 1996; Wood et al. 2009, 2006) whereas other studies characterize family training as a treatment component that does not enhance the efficacy of CBT (Barrett, Duffy, Dadds, & Rapee, 2001; (In-Albon & Scneider, 2007) Nauta, Scholing, Emmelkamp, & Minderaa, 2003). A potential explanation for these mixed findings is that parent/guardian anxiety may moderate the treatment response for the FCBT as children with highly anxious parents/guardians may benefit most from an adjunctive family training program (Cobham et al., 1998). Additionally, evidence suggests that family training programs can help families avoid reinforcing their child's anxiety by teaching them how to limit the attention and support provided to the child during his/her anxious or avoidant behaviors (Mohatt et al., 2014). Treatment options involving family may be particularly important for African Americans due to an increased emphasis on the centrality of family in this community as well as the potential protective nature of familial support for African American youth (McCabe & Clark, 1999).

Aside from CBT, nascent findings suggest that the child and adolescent psychodynamic psychotherapy (CAPP) protocol may be a potential alternative for youth who have limited accessibility or poor treatment response to CBT (Abbass, Rabung, Leichsenring, Refseth, & Midgley, 2013; Milrod et al., 2013; Silver, Shapiro, & Milrod, 2013). The CAPP protocol is administered across 20–24 sessions and attempts to utilize the therapist–client relationship to develop the child's ability to reflect as well as explore the psychological meaning of his or her anxious symptoms (for more detail, see Silver et al., 2013; however, there are no specific guidelines for working with African American youth provided). Though there still remains a dearth of empirical evidence supporting the application of the psychodynamic therapeutic orientation in childhood and adolescent anxiety, Milrod and colleagues have begun to establish the efficacy of the CAPP protocol in anxious youth by using a sample of 10 children between the ages of 8 and 16 (no ethnic/racial demographic information provided). Researchers found that all children, who each received 12–14-weeks of the CAPP treatment, no longer met criteria for their primary anxiety diagnosis (as evidenced by clinician ratings) and experienced significant reductions in overall anxiety symptoms at treatment termination and at 6 month follow-up (as indicated by scores on the Pediatric Anxiety Rating Scale, RUPP, 2002). In addition to the small sample size and lack of a treatment comparison condition, the current study does not report any consideration regarding its application in African American youth. Future research on the efficacy of the CAPP protocol is warranted particularly for African American youth given the promising results demonstrated in the Milrod et al. (2013) study.

Pharmacotherapy: Treatment Outcomes

Though pharmacological treatments of generalized anxiety disorder, separation anxiety disorder, and the phobias are less studied relative to CBT, a review of literature suggests that selective serotonin reuptake inhibitors (SSRIs) are efficacious and tolerable in anxious youth (Seidel & Walkup, 2006). Several studies have demonstrated that

SSRIs implemented as a monotherapy yield superior outcomes relative to no medication in children with GAD (fluoxetine also known as Prozac or Sarafem—Maslowsky et al., 2010; sertraline also known as Zoloft—Rynn, Siqueland, & Rickels, 2001) and SoD (fluoxetine—Birmaher et al., 2003; sertraline—Compton et al., 2001; paroxetine as known as Paxil—Wagner et al., 2004). However, none of these studies included African American youth or provided any reference to the racial or ethnic composition of their samples.

Also, given the increased likelihood that several anxiety disorders co-occur in child and adolescent patients (Strawn et al., 2012), extant literature has demonstrated the efficacy of SSRIs on youth with comorbid anxiety disorders (Mohatt et al., 2014). In particular, the effects of fluoxetine (20 mg/day) were examined in a sample of 74 anxious youth between the ages of 7 and 17 (0 % African American; Birmaher et al., 2003). Researchers found that children who received fluoxetine had significantly greater treatment response (61 %) compared to the placebo condition (35 %) following a 12-week treatment (Birmaher et al., 2003) and at one year follow-up (Clark et al., 2005). In terms of side effects for the fluoxetine, children in the active medication condition compared to those in the placebo condition experienced significantly more gastrointestinal (46 % and 22 %, respectively, $p = 0.04$) and neurological (44 % and 14 %, respectively, $p = 0.004$) complaints during the first 2 weeks of treatment. However, there were no significant differences in several side effects such as excitement, giddiness, disinhibition, pulse, blood pressure, and weight between the fluoxetine and placebo conditions.

Despite significant reductions in anxious symptoms, pharmacotherapy as a sole treatment may not suffice in ameliorating anxious symptoms (Birmaher et al., 2003; Seidel & Walkup, 2006); and therefore, an adjunctive psychotherapy component may be warranted to optimize treatment response. As such, extant literature has demonstrated that a combination therapy, including CBT and pharmacotherapy, is a superior treatment option for many anxious youth than medication alone (see review by Mohatt et al., 2014). In particular, Walkup et al. (2008) utilized a sample of 488 children (9 % African American) ages 7–17 and randomly assigned them between a CBT-alone, sertraline-alone (at a dose less than or equal to 200 mg/day), combination treatment, or placebo conditions. Researchers found that children in the combination treatment condition experienced the greatest symptom improvement relative to the two monotherapies ($p < 0.001$) and that there was no significant difference in treatment response between CBT-alone and sertraline-alone groups. Also, all active treatment conditions were superior to the placebo condition. Regarding side effects of the sertraline, Walkup and colleagues reported a nonsignificant difference in adverse events between sertraline and placebo conditions, but found that there were significantly more reports of fatigue, insomnia, restlessness, and fidgeting in the sertraline condition relative to the CBT condition.

Aside from studies examining the effects of SSRIs in improving anxious symptoms, several studies have examined the efficacy of other medication options for children and adolescents. Evidence suggests that selective norepinephrine reuptake inhibitors (SNRIs) are a viable alternative for treating GAD (venlafaxine—Rynn, Riddle, Yeung, & Kunz, 2007) and SoD (venlafaxine ER—March, Entusah, Rynn, Albano, & Tourian, 2007) as evidenced by its superior efficacy relative to placebo conditions. Side effects associated with SNRIs include asthenia, pain, somnolence, and weight loss (March et al., 2007; Rynn et al., 2007). Additionally, benzodiazepines have been considered as a treatment option for anxious youth but have yielded mixed findings regarding efficacy. Of the few studies examining the effects of benzodiazepines, only one study has demonstrated the superiority of alprazolam versus placebo for anxious youth (Simeon & Ferguson, 1987); however, these findings were not replicated in a similar population (Simeon et al., 1992). Overall, mild side effects were associated with alprazolam in this study, including sedation, agitation, headaches, and nausea. Moreover, Graae and colleagues (1994) found that youth with SAD who received clonazepam exhibited no difference in treatment response compared to the placebo condition. In this study, side effects were more frequent for youth in the active treatment condition, 83 %, relative to the placebo condition, 58 %. However, benzodiazepines should not be considered a treatment of choice due to their potential for addiction.

Altogether, the aforementioned studies demonstrate that SSRIs may be an effective first-line of pharmacological treatment for childhood and adolescent anxiety. Specifically, several SSRI medications (i.e., sertraline, fluoxetine, fluvoxetine) demonstrated superior efficacy relative to placebo conditions and have yielded minimal to mild adverse events (e.g., gastrointestinal disturbance, headache, insomnia, and behavioral activation; Seidel & Walkup, 2006) when used in youth ages 6–17 years (Birmaher et al., 2003; Compton et al., 2001; Maslowsky et al., 2010; Rynn et al., 2001; Wagner et al., 2004). Additionally, it is important to continue empirically examining a variety of pharmacological treatments as 20–35 % of children and adolescents do not respond to SSRIs and CBT (Walkup et al., 2008). Despite a dearth of evidence supporting its efficacy, findings to date suggest that SNRIs are a potential option for anxious youth who are non-responders to more empirically supported treatments. In sum, there is considerable empirical evidence identifying viable treatment options for pediatric anxiety, which primarily include CBT-based interventions and pharmacotherapies. In light of these findings, the subsequent section will consider the implications of the current state of treatment research for African American youth.

Treatment Outcomes and Considerations for African American Youth

A distinctive limitation of the aforementioned findings is that ethnic minority youth are severely under-sampled, limiting the generalizability of these findings to African American children and adolescents. Among the few studies that have examined the efficacy of treatments for anxiety in African American youth as shown in Table 10.1 (Ginsburg, Becker, Kingery, & Nichols, 2008), the general consensus suggests that the ingredients of CBT are impactful in improving symptoms of anxiety (Ginsburg, Becker, Drazdowski, & Tein, 2012; Treadwell, Flannery-Schroeder, & Kendall, 1995) with a special consideration for certain sociocultural factors that may uniquely influence the accessibility and implementation of such specialized treatment in this population. Particularly, African American youth from low-income households may experience limited accessibility to specialized mental health services due to logistical impasses (e.g., poor insurance coverage, transportation, or lack of qualified providers) and potentially discouraging experiences with prior mental health services (Owens et al., 2002). Additionally, evidence suggests that alternative community resources are often preferred within African American families compared to seeking mental health services. For instance, Murry, Heflinger, Suiter, and Brody (2011) found that rural African American mothers acknowledged the potential benefits of mental health services, but indicated that they preferred seeking help from family, church, and schools to address difficulties experienced by their children. Notably, the public stigma associated with their child having mental health problems as well as cultural mistrust was listed as factors that influenced help-seeking behaviors for their sample, which has also been theorized to be factors uniquely associated with anxiety in African Americans (Hunter & Schmidt, 2010). Further highlighting the limited use of specialized treatments, such as CBT, Angold et al. (2002) found that rural, low-income African American children were less likely to receive specialized mental health services unless the services were provided in the primary educational setting.

Inasmuch, recent literature has begun to explore the effectiveness of a school-adapted CBT protocol with hopes of bypassing potential sociocultural barriers to services in African American families. Specifically, the Baltimore Child Anxiety Treatment Study in the Schools (BCATSS) represents a cutting-edge attempt to create a psychosocial treatment for childhood and adolescent anxiety that considers the sociocultural context of African American low-income urban youth. Ginsburg et al. (2008) adapted a CBT protocol designed to be administered by school-based clinicians to inner city youth between the ages of 7 and 12. Ginsburg and

Table 10.1 Treatment outcome studies for pediatric anxiety in African American youth

Authors	Sample	Disorder treated	Treatment	Study design	Results
Becker et al. (2012)	16 urban youth; 87.5 % African American	GAD, SP, SoD, SAD, or Anxiety NOS	School-based CBT modules (i.e., psychoeducation, exposures, rewards, cognitive restructuring, problem solving, relaxation, and relapse prevention)	Only included 16 youth from the CBT condition in the Ginsburg et al. (2012)	Psychoeducation, exposure, and cognitive restructuring most often used by school-based clinicians
Ginsburg and Drake (2002)	12 African American adolescents (10 females, 2 males/avg. age = 15.6 yrs)	GAD, SP, SoD, AG	School-based CBT for anxiety	RCT CBT ($n=6$) vs. Group attn.-support control ($n=6$)	3/4 of teens in CBT condition no longer met criteria compared to 1/5 in Group condition
Ginsburg et al. (2012)	32 urban youth ages 7–17; 84.3 % African American students	GAD, SoD, SP, SAD, or Anxiety NOS	School-based CBT—Modular approach (7 modules administered over 12 weeks) Usual Care—art, play, or supportive therapy	RCT CBT ($n=17$) vs. Usual care ($n=15$); 3 dropouts at post-tx follow-up	Significant reductions in anxiety post-treatment and at follow-up, but no significant differences in treatment response across conditions
Treadwell et al. (1995)	178 children ages 9–13; 19 % African American vs. 81 % White	OAD, SAD, AD	16 session CBT protocol	Children diagnosed with anxiety were randomly assigned to a therapist	Reduction in anxiety symptoms, fear, and worries was similar across ethnicity as evidenced by child, teacher, and parent report

AD avoidant disorder, *AG* agoraphobia, *Anxiety NOS* anxiety disorder—not otherwise specified, *CBT* cognitive behavioral therapy, *GAD* generalized anxiety disorder, *OAD* overanxious disorder, *RCT* randomized control trial, *SAD* separation anxiety disorder, *SoD* social anxiety disorder, *SP* specific phobia

colleagues proposed that the rationale behind the school-based focus of the treatment program is to limit the influence of anxiety on academic performance and because school-based therapy is potentially more affordable and accessible for underresourced African American youth. Regarding the implementation of school-based CBT programs, several studies have yielded promising results supporting its efficacy among African American anxious youth. For instance, in a study consisting of 12 African American adolescents (83 % female), Ginsburg and Drake (2002) found that more teens in the school-based CBT group ($N=6$) no longer met criteria for their initial anxiety diagnosis relative to teens in a control group ($N=6$), 75 % and 20 %, respectively. Moreover, another study conducted by the same group of researchers (Ginsburg et al., 2012) included 32 inner city youth from Baltimore public schools (84.4 % African American) and compared diagnostic status and symptom reductions between children in school-based CBT and non-CBT oriented therapies (or treatments without CBT ingredients, such as play, art, or supportive therapies) conditions. Based on clinician, parent, and child ratings, results demonstrated that both the school-based CBT and non-CBT oriented therapies significantly reduced anxiety symptoms post-treatment and at one year follow-up; however, there were no significant differences in treatment responses between the two conditions. Given that school clinicians were allowed to flexibly apply CBT modules to meet the needs of each child in the Ginsburg et al.

(2012) study, Becker, Becker, and Ginsburg, (2012) conducted subsequent analyses on the CBT treatment condition (87.5 % African American). In particular, Becker and colleagues found that though no one module solely predicted treatment response, exposure and psychoeducation were the most commonly implemented modules within the CBT treatment. Importantly, these findings demonstrate that clinically anxious African American youth who primarily receive mental health services through their school can experience extended symptom relief that is comparable to non-CBT oriented therapies. Also, Becker and colleagues (2012) provide evidence suggesting that psychoeducation and exposure are CBT modalities that are effective in addressing anxiety symptoms within a sample of under-resourced African American youth.

Despite a poor sampling of African American youth in the aforementioned pharmacological studies, several studies have delineated important treatment considerations when prescribing medications to anxious African American youth. For instance, Stevens and colleagues (2009) used a sample of 501 parents (25 % African American) and found that African American parents viewed SSRIs as less beneficial and potentially more risky compared to parents of other ethnicities. Compared to other indicators (e.g., trust, education/knowledge, religious involvement, Schnittker (2003) similarly found that skepticism in medication efficacy and its associated side effects were the most salient indicators of African American parent's willingness to give medication to their children. Taken together, these aforementioned studies (Schnittker, 2003; Stevens et al., 2009) suggest that the willingness to take and adhere to prescribed SSRIs in African American youth may be impacted by potentially negative perceptions of the medication, which is an indicator that remains relevant to African American families across different socioeconomic levels (Schnittker, 2003). A study by Jerrell (2010) does provide some evidence substantiating the hesitancy of African American parents regarding the prescription of SSRIs given that African American children and adolescents were found to be more likely to experience weight gain, dyslipidemia, and type 2 diabetes mellitus. In light of these findings, Jerrell (2010) recommends that practitioners use caution when prescribing SSRIs to African Americans and carefully consider the potential influence of preexisting health conditions and any individual factors that may increase the likelihood of these adverse events. Specifically, one important factor that ethnopharmacological studies have revealed is that African Americans can require different dosage amounts (Lawson, 1996; Varner, Ruiz, & Small, 1998) and have faster treatment response (Lawson, 1996) to antidepressant medications relative to other ethnic groups.

Finally, similar to the barriers that may impede African American youth from accessing empirically supported psychosocial therapies, socioeconomic factors, such as poverty and limited health insurance, also impact treatment adherence to prescribed medications. For example, Chen and Rizzo (2008) found that African American adults were more likely to use generic brands of SSRIs and older medications than other ethnicities and explained that differences in education level and health insurance coverage across ethnic groups also influenced their findings. Altogether, there are no RCTs that specifically examine pharmacological treatment response for anxious African American youth, but existing literature does provide an overview of several important sociocultural factors (e.g., parental perceptions, socioeconomic variables) to consider when prescribing medication to this population.

Anxiety and African American Youth: Future Research Directions

In summary, the use of cognitive behavioral techniques combined with an SSRI has been identified as the most efficacious treatment option for pediatric anxiety disorders; however, the evidence supporting this prescription of treatment does not consider the sociocultural context of treating anxiety in African American youth due to an insufficient sampling of African American youth and/or the absence of ethnic group comparisons. Inasmuch, the most obvious recommendation for future research is the inclusion of more African

American youth in treatment outcome studies as well as to require that funded studies be powered to adequately address racial/ethnic group comparisons post study. Doing so would allow researchers to capture the unique experiences of African American youth in treatment outcome studies, which in turn would allow for the development of treatments specific to the needs and expectations of the youth and their families. It is worth noting that when attempting to include African American families in treatment studies, it may require a diverse array of recruitment strategies, such as having a culturally competent and diverse research team (e.g., possibly having African American researchers, practitioners, therapists, and/or assistants), engaging in community outreach opportunities to raise awareness about the study's benefits (e.g., providing educational talks at local churches or monthly community organization meetings), and offering incentives that are respectful of the family's needs (e.g., monetary incentive, free psychological evaluation feedback from assessments administered, or opportunities to receive free specialized interventions; Williams, Tellawi, Wetterneck, & Chapman, 2013). Though this may require more time and effort during the recruitment phase of the study, it is imperative that research teams appreciate the value of increasing the involvement of African American families in pediatric anxiety treatment studies. Importantly, the increased sampling of African American youth in randomized control trials would provide evidence highlighting the potential benefits, drawbacks, feasibility, and overall effectiveness of the aforementioned treatment options in this population.

Despite such limitations in extant literature, the BCATSS provides a framework for refining treatment protocols in order to accommodate the specific needs of a specialized population. As demonstrated by Ginsburg and colleagues (2012), school-based clinicians were able to administer CBT modules, particularly psychoeducation and exposure, to a sample of predominantly underresourced African American youth, which did ameliorate their symptoms of anxiety. Similar to how these researchers attempted to capitalize on the increased affordability and accessibility of school-based therapy for inner city youth with limited resources, future research should focus on additional ways to utilize existing community resources that African American youth and families employ, such as the church (Murry et al., 2011; Williams, Gorman, & Hankerson, 2014). Future research should identify ways to collaborate with such community resources to reduce the impasse of potential barriers and in turn, enhance the dissemination of effective treatments for pediatric anxiety. Notably, as recommended by Murry et al. (2011) and others (Breland-Noble, Bell, Burriss, & AAKOMA Project Adult Advisory Board, 2011; Breland-Noble, Burriss, Poole, & AAKOMA Project Adult Advisory Board, 2010), an important step in adapting treatments that align with the needs of African American youth is to continue researching barriers to treatment even when examining the efficacy of adapted protocols. For example, Ginsburg and colleagues (2012) note potential barriers influencing the efficacy of the school-based CBT protocol, which included level of child anxiety, frequency of negative cognitions, and parenting stress pre-treatment as well as the frequency of urban hassles (e.g., living in an unsafe area). More broadly, extant literature has identified cultural stigma, medical mistrust, and cultural norms about mental illness as culturally based ideologies that impact the help-seeking behaviors of African Americans (Hunter & Schmidt, 2010; Thompson, Bazile, & Akbar, 2004).

In conclusion, the state of empirical evidence specifically highlighting the treatment response of African American youth is lacking; and therefore, creates a myriad of new directions for future research. Though it is assumed that existing empirically supported treatments will yield positive treatment responses within African American youth, the greatest demand in future research is establishing more accessible avenues for the efficacious treatments for pediatric anxiety to be delivered in this population. A survey of literature identifies socioeconomic factors (e.g., poverty, lack of insurance) and cultural ideologies (e.g., cultural mistrust, stigma of mental health) as persistent barriers impeding the accessibility of treatment (Angold et al., 2002; Hunter & Schmidt, 2010).

However, per the recommendation by Murry and colleagues, it is important that future research explores additional sociocultural variables impacting treatment in this population as such efforts will aid in the adaptation of treatment protocols that enhance accessibility and utilization of services for pediatric anxiety (Angold et al., 2002; Owens et al., 2002; Schnittker, 2003; Stevens et al., 2009; Terwilliger, Bach, Bryan, & Williams, 2013).

Pediatric Obsessive-Compulsive Disorder

OCD is a severe psychiatric illness commonly affecting as many as 1 in 200 children and adolescents (Flament et al., 1988) and is considered one of the leading causes of mental disability worldwide (Ayuso-Mateos, 2007). OCD is characterized by the presence of obsessions ("worries") and/or compulsions ("rituals"). Initially OCD was classified as an anxiety disorder in the Diagnostic and Statistical Manual of Mental Disorders, 4th Edition, Text Revision (DSM-IV-TR; American Psychiatric Association, 2000). However, reclassification of OCD in the DSM-5 resulted in a separate category titled Obsessive-Compulsive and Related Disorders (OCRD; Stein et al., 2010; Storch, Abramowitz, & Goodman, 2008). The OCRD section includes the diagnoses of body dysmorphic disorder (BDD), hoarding, trichotillomania (hair pulling), and excoriation (skin-picking). Although these disorders share common features with OCD, their differences warrant exclusion from this chapter.

Sociocultural Factors of Pediatric OCD in African American Youth

Pediatric OCD research has expanded our knowledge of factors specific to children and adolescents since the first epidemiological study performed over 25 years ago (Flament et al., 1988). However, very little is known about cross-cultural differences that may exist in children and adolescents with OCD, specifically in African American youth. The limited knowledge of OCD in African Americans is gleaned from case studies (Chambless & Williams, 1995), NSAL data (Himle et al., 2008), and recent findings from a study of African American adults with OCD at the University of Pennsylvania (Williams, Proetto, Casiano, & Franklin, 2012). Unfortunately, there are no randomized clinical trials of OCD that include adequate numbers of African Americans of any age (Williams et al., 2010), genetic studies of African Americans with OCD, or published studies about African American youth with OCD.

Psychosocial Treatment: Treatment Outcomes

CBT for pediatric OCD is typically a manualized form of treatment (Piacentini & Langley, 2004; Piacentini, Langley, & Roblek, 2007) and can be administered in several different formats. The typical format for CBT with Exposure and Ritual Prevention (Ex/RP) ranges from 14 to 16 weeks of therapy, however, intensive therapy can occur as little as 5–7 weeks (Piacentini et al., 2007). Within the allotted weeks, 12 sessions are outlined for the typical CBT treatment of OCD. The first two sessions are used to assess for OC symptoms and comorbidity, provide psychoeducation and treatment rationale, and create an exposure hierarchy. The remaining therapy sessions occur weekly and last for 60–90 min. Intensive therapy follows the same assessment schedule, but increases the frequency of meeting days from weekly to biweekly and can increase to daily meetings. Ex/RP is therapist guided and involves the creation of both imaginal and in vivo exposures based on the exposure hierarchy for within session activities and homework. Following the creation of the exposure hierarchy, exposures are practiced within sessions and homework assignments are used to facilitate generalizability of in-sessions results. This treatment format also works to ensure the completion of the hierarchy within the 14–16 weeks. Based on the modality (individual, group, family), the basic ingredients of CBT remain intact but changes to frequency or length of sessions and level of family or peer involvement vary depending on treatment methodology.

According to the OCD Expert Consensus Guidelines (March, Frances, Carpenter, & Kahn, 1997), CBT, in particular Ex/RP, is considered the first-line treatment for symptom reduction in children and adolescents with OCD. Freeman and colleagues (2007) reviewed several articles on the efficacy of CBT in youth with OCD, reporting a large effect size for individual, group, and family CBT. Past research on individual therapy for OCD revealed effectiveness for both brief (5 sessions) and full (12 sessions) CBT with a reported 1.6 and 2.2 effect size (Bolton et al., 2011). Additional support of Ex/RP was found by Bolton and Perrin (2008) who examined the effects of an intensive 5 week Ex/RP alone program absent of pharmacotherapy in children and adolescents with OCD. Himle, Van Etten, and Fischer (2003) found support for the treatment of pediatric OCD using group therapy, however, much of the published data were gathered from naturalistic open trials. Individual and group CBT family-based therapy for children and adolescents with OCD was also found to be an effective treatment modality (Barrett, Healy-Farrell, & March, 2004). A program titled Freedom from Obsessions and Compulsions Using Cognitive-Behavioral Strategies (FOCUS) incorporated a structured parent and sibling protocol in addition to individual treatment (Barrett et al., 2004). Both individual family CBT and group family CBT therapy were found to be effective in reducing OCD symptom severity in children and adolescents. Also, group family CBT resulted in larger reductions in depressive and anxiety symptoms when compared to individual therapy. Monotherapy for less severe symptoms in adolescents has been found effective; however, adolescents with more severe symptoms have often required CBT and pharmacotherapy (Keeley, Storch, Dhungana, & Geffken, 2007; POTS, 2004). Of these studies, few reported the ethnoracial demographic data needed to determine if African American participants were involved in the RCTs. Likewise, when demographic data was provided, the percentage of African American participants were minimal making it difficult to perform comparative analyses.

Pharmacotherapy: Treatment Outcomes

One of the most effective known pharmacological treatments for pediatric OCD is selective serotonin reuptake inhibitors (SSRIs; DeVeaugh-Geiss et al., 1992; Geller et al., 2003). Despite their effectiveness, Wagner et al. (2004) found that complete remission with treatment of medication alone for OCD is uncommon, and these findings have been consistently supported in research (Freeman et al., 2007; POTS I, 2004). A meta-analytic review of pharmacotherapy for pediatric OCD performed by Watson and Rees (2008) found strong support for the use of SSRIs for adolescents with OCD. DeVeaugh-Geiss et al. (1992) found that the tricyclic antidepressant clomipramine was successful in reducing OCD symptoms in children and adolescents (60 %). In the Liebowitz et al. (2002) study, children and adolescents who were prescribed fluoxetine experienced more symptom reduction (57 % of the sample) when compared to the effects of the placebo. Successful symptom reduction due to paroxetine was also reported by 64.9 % of children and adolescents participating in the RCT (Geller et al., 2004). African Americans in the Geller et al. (2004) were identified as "other," grouped with all other people of color when compared to European Americans making it difficult to extract information on the specific benefits of paroxetine in this group.

Randomized controlled trials examining the efficacy of medication and psychotherapy were supported in the published findings of the POTS I (2004) study (4 % African American). The combined group (CBT + medication) of children and adolescents (53.6 %) experienced the greatest symptom relief when compared to medication alone and the placebo. However, there were no significant differences between combined and CBT alone (39.3 %) indicating that CBT alone may be just as effective as therapy combined with medication to promote symptom reduction in pediatric OCD. The POTS II (2011) study examined the efficacy of augmented medication combined with short-term CBT, which supported

Wagner et al.'s (2004) findings of the efficacy of combining CBT and medication over medication alone. Specifically, their findings demonstrate the benefits of clinician-led CBT treatment over CBT instruction led by a pharmacotherapist and excluded parent sessions (Franklin et al., 2011). Additionally, the POTS Jr. (Freeman et al., 2014) study highlighted the relevance of parental involvement in the treatment of pediatric OCD by accentuating parent participation during the treatment process and testing specific strategies for parental involvement in CBT. Freeman and colleagues (2014) found that participation in the Family + CBT group was found to decrease symptom severity resulting in significant improvement for children with OCD (Table 10.2).

Treatment Outcomes and Considerations for African American Youth

There appear to be unique barriers to treatment for OCD that disproportionally impact people of color. Traditionally, studies of OCD have grossly under-sampled African Americans. For instance, among the 454 participants in a DSM-IV field trial (one of the largest OCD studies conducted), only 2.8 % of the overall sample was African American (Foa et al., 1995). A similar trend has continued to be characteristic of the OCD literature as a number of large, multi-site studies have left African Americans underrepresented in their samples (Mancebo, Garcia, & Rasmussen, 2008; Williams, Powers, Yun, & Foa, 2010). In a large study recently conducted, examining 924 children or adults with OCD at Rogers Memorial Hospital, from 1999 to 2012 the overwhelming majority of patients were found to be non-Hispanic White (93.3 %; Williams et al., 2015). Only 1.2 % were African American, and of these only two were children (ages 8–12). In fact, out of the 203 teens admitted to the Adolescent OCD Residential treatment center at Rogers Memorial Hospital, not one was African American. The precise reason for the underrepresentation of African American youth in treatment for OCD is still unknown.

Nonetheless, there are factors clinicians should consider when administering empirically supported psychotherapy and pharmacotherapy for pediatric OCD. Working with African American youth and families requires consideration of important cross-cultural factors, including treatment accessibility and cultural mistrust as specific barriers to treatment. Current literature suggests that African Americans are less likely to seek treatment for OCD despite similar prevalence rates and increased negative symptom severity (Williams, Domanico, Marques, Leblanc, & Turkheimer, 2012). A study on barriers to treatment among adult African Americans with OCD (Williams, Domanico, et al., 2012) provided valuable information on how such concerns may affect treatment seeking behaviors in adults. For example, Africans American adults with OCD reported lack of information about where to seek treatment as the reason for delayed treatment. Additionally, concerns about stigma and judgment, cost of treatment, lack of insurance, the effectiveness of treatment, and availability to participate in treatment were all identified as major barriers to seeking help for OCD. For example, Friedman et al. (2003) found that African American adult patients with OCD were less likely to disclose OCD symptom at pre-treatment relative to their European American counterparts. Initially, these authors describe that African American patients solely endorsed symptoms of panic disorder (i.e., somatic complaints) as their primary complaint and denied any evidence of obsessions or compulsions. Aside from experiencing some reduction in anxiety symptoms and receiving psychoeducation about the maladaptive avoidance of anxiety, Friedman and colleagues (2003) found that African American patients were willing to divulge their OC symptoms once a positive therapeutic alliance was developed. These findings can serve as significant factors of influence for families of youth seeking treatment for OCD. Similar to adults with OCD, parents may

Table 10.2 Treatment outcome studies for pediatric OCD in African American youth

Authors	Sample	Inclusion criteria	Treatment	Study design	Results
Bolton and Perrin (2008)	20 British children and adolescents (8–17); 6 females and 14 males; 1 British African	Primary OCD (Comorbid anxiety disorder, ADHD, major depression; no medication)	Exposure and ritual prevention; 5 week intensive therapy (No CR, CBT, anxiety management, family-based intervention)	RCT Ex/RP ($n=10$) vs. Waitlist control ($n=10$)	Ex/RP effective compared to waitlist
Geller et al. (2001)	103 children and adolescents (7–17): 54 females, 49 males; 3 % African American	Primary OCD (no comorbidity)	20–60 mg of Fluoxetine daily with dose increases throughout and Placebo Pill	RCT Fluoxetine ($n=71$) vs. Placebo ($n=32$)	Participants in the medication group experienced greater symptom reduction at a higher rate than those receiving placebo pills
Geller et al. (2004)	203 children and adolescents (7–17); 117 males, 86 females; Medication Group: 13.3 % "Other" (13 Black, 1 Mixed-Black and White)	Primary OCD (comorbid ADHD, GAD; no tic disorder, no other predominate Axis I disorders); non-response to SSRI meds)	10–50 mg of Paroxetine daily dose	RCT Paroxetine ($n=98$) vs. Placebo ($n=105$)	Younger (7–11) participants responded at a greater rate than adolescents; Medication was statistically more effective than placebo
Liebowitz et al. (2002)	43 children and adolescents (6–18); 9.5 %, African American	Primary OCD (no comorbid hx of mania, schizophrenia, psychotic symptoms, substance abuse)	Fluoxetine daily dose for 16 weeks (8 week dosing; 8 week maintenance)	RCT Fluoxetine ($n=21$) vs. Placebo ($n=22$)	57 % of participants administered fluoxetine experienced symptoms reduction
POTS (2004)	112 children and adolescents; 4 % Black	Primary OCD (comorbid ADHD if properly medicated; anxiety disorder, Tic Disorder)	CBT, Sertraline Medication; 12 week manualized program	RCT Medication only ($n=28$), CBT only ($n=28$), CBT+Meds ($n=28$) vs. Control ($n=28$)	Combined treatment more effective than medication alone and placebo but not CBT alone
POTS II (Franklin et al., 2011)	124 children and adolescents; 3 % Black	Primary OCD (comorbid ADHD if properly medicated; anxiety disorder, Tic Disorder)	CBT, SRI Medication; 12 week manualized program	RCT Medication only ($n=42$), Medication plus CBT instruction ($n=40$), Medication plus CBT ($n=42$)	Medication plus CBT more effective than medication alone and medication plus CBT instruction (i.e., did not include therapist-led exposure or a parent session; led by pharmacotherapist)
POTS Jr. (Freeman et al., 2014)	127 children; 1.6 % African American		Family-based CBT, 14 week manualized program	RCT Family-based CBT ($n=63$), family-based relaxation training ($n=64$)	Family-based CBT more effective than family-based relaxation training

harbor concerns of accessibility and awareness of psychosocial treatment resources, fear of stigma, judgment and labeling, lack of insurance for their children, and will have equal concerns about time availability that may directly affect the course of OCD in African American youth (Williams, Domanico, et al., 2012; Also, given evidence supporting the efficacy of an adjunctive family component for pediatric OCD treatment (POTS Jr., Freeman et al., 2014), family-based CBT may serve as a viable mechanism to both appropriately address parental concerns and facilitate symptom improvement for African American youth with OCD.

Relative to psychosocial treatments, medication considerations, namely prescribing SSRIs, may pose a greater challenge to clinicians when working with African American families. Although several studies have found SSRIs to effectively reduce symptoms in youth with OCD (Geller et al., 2001), African American parents may be less accepting of this method of treatment (Stevens et al., 2009) for various reasons. Cheung, Emslie, and Mayes (2005) noted that 3–12 % of children in drug trials discontinue medication because of side effects. Parents may fear adverse effects that are common with SSRI medications requiring clinicians to be knowledgeable about effective ways to manage SSRIs in youth (Murphy, Segarra, Storch, & Goodman, 2008). As such, it becomes extremely important that African American parents are educated on the ethnic differences in drug response, specifically, the metabolizing and absorption of antidepressants (Muñoz & Hilgenberg, 2005). Research found that African Americans are more likely to experience adverse effects when prescribed higher doses of SSRIs, which may indicate a need for a lower dose of medication when treating OCD. This recommendation may seem counterintuitive to SSRI medication regimens given that doses prescribed to treat OCD typically fall at the higher end of the dose range (Choi, 2008). It is likely that when treating African American youth with OCD, these cultural factors will require adequate attention in order to challenge possible negative parental beliefs about medication that may influence treatment compliance.

Pediatric OCD and African American Youth: Future Research Directions

To enhance our understanding of OCD in African American youth, it is essential that the pediatric OCD literature explores how racially specific symptom patterns can be utilized to refine the assessment and treatment protocols administered for this population. Specifically, current literature suggests that African Americans endorse more contamination concerns compared to their European American counterparts (Williams, Abramowitz, & Olatunji, 2012). Sociocultural factors specific to African American adults and OCD indicate that increased washing and cleaning appears to be a cultural norm among African Americans (Williams & Turkheimer, 2007), therefore, OCD symptoms may go unnoticed for a longer period, leading to recognition only when the symptoms are severe (Williams et al., 2012). In our recent study of African American adults with OCD, we found that participants were unusually fearful of animals, felt a stronger need to be perfectly understood, and used counting compulsions as a means to combat aggressive obsessions (Williams, Elstein, Buckner, Abelson, & Himle, 2012). Importantly, knowledge of these differences are essential for clinicians to accurately diagnose this population when using OCD assessment tools that are psychometrically sound for this group (Williams, Davis, Thibodeau, & Bach, 2013; Williams, Wetterneck, & Sawyer, 2015; Williams, Wetterneck, Thibodeau, & Duque, 2013). Given that the aforementioned studies identify unique OCD symptomology in African American adults, more research is needed to determine if African American youth differ from adults with OCD in symptom presentation. Such research endeavors will enhance the psychometric properties of available assessment tools and subsequently inform treatment for this population.

Furthermore, in line with recommendations for the pediatric anxiety literature, it is imperative that future research increase the sampling of African Americans in treatment efficacy studies as this will help to determine the generalizability of existing efficacious treatment options for

African American youth. In summary, the use of CBT, namely Ex/RP was found to be most efficacious in treating pediatric OCD in youth. The use of SSRIs as a supplement to treatment was recommended mostly for adolescents. These findings were based on RCTs conducted using predominately European American samples resulting in limited information about pediatric OCD in African American youth. As such, future research must examine the efficacy of both psychosocial and pharmacological treatment of pediatric OCD in African American youth.

Finally, more research is needed to examine treatment accessibility for African American youth with OCD. African Americans are more likely to have negative beliefs about mental health care and these beliefs could result in a barrier to treatment for afflicted youth. If OCD symptoms go unnoticed in African American youth, failure to recognize the presence of symptoms could result in an increase in severity given the progressive nature of OCD (Williams et al., 2012). Greater symptom severity has been related to poorer treatment outcomes (Hurley, Saxena, Rauch, Hoehn-Saric, & Taber, 2002), and a longer period of disability which could result in reduced quality of life (Himle et al., 2008). It is unknown whether greater symptom severity exists in African American youth with OCD. As a result, more research is needed to examine the role of these and other barriers (e.g., low income) to treatment for African American youth with OCD. Upon pursuing this line of research, more can be examined concerning potential ethnic differences and barriers to treatment that may present in African American youth given recent findings in adults.

Conclusion

In this chapter, we have reviewed important considerations regarding the expression and treatment of anxiety and obsessive-compulsive behaviors in African American youth. In terms of pediatric anxiety, the frequency and perception of somatic sensations has been identified as particularly relevant to the expression of anxiety in African American youth (Kingery et al., 2007; White & Farrell, 2006). With regard to treatment, the combination of CBT and SSRIs has garnered the most support for optimal treatment outcomes (Walkup et al., 2008); however, studies have yet to provide evidence that such combination therapy is most efficacious and feasible for African American youth. Notably, a school-based CBT protocol administered in a predominant African American youth sample provides a prototype for future research to adapt empirically supported treatments to accommodate sociocultural barriers impeding accessibility to mental health services (Ginsburg et al., 2008).

In terms of the pediatric OCD, evidence suggests that contamination fears may be particularly salient to African Americans due to culturally normative attitudes about washing and cleaning (Williams & Turkheimer, 2007). Existing literature supports the efficacy of individual, group, and family CBT plus Ex/RP in reducing symptom severity for youth with OCD (Barrett et al., 2004). For children and adolescents with more severe OCD symptoms, research supports the effects of CBT alone or in combination with Ex/RP (POTS I, 2004). However, due to a poor sampling of African American youth in these studies, it limits our understanding of important treatment considerations when administering the CBT plus Ex/RP protocols and prescribing medication. As such, future research that increases the sampling of African American youth is warranted, especially in RCT studies. Specifically, when working with African American youth with OCD, important sociocultural treatment barriers to consider include the family's perception of mental health as well as the severity and chronicity of symptoms.

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Depressive Disorders

11

Alfiee M. Breland-Noble

Introduction

Adolescent depressive disorders constitute serious mental illnesses impacting youth of diverse backgrounds. With the introduction of the Diagnostic and Statistical Manual of Mental Disorders 5 (DSM 5), what were formerly known as “mood disorders” are now referred to by the name “depressive disorders” and include the following: Disruptive mood dysregulation disorder, major depressive disorder (MDD)—single and recurrent episodes, persistent depressive disorder (dysthymia), premenstrual dysphoric disorder, substance/medication-induced depressive disorder, depressive disorder due to another medical condition, other specified depressive disorder, and unspecified depressive disorder. The focus of this chapter is on the literature relevant for the diagnosis and treatment of the most prevalent depressive disorders in African American youth (i.e., MDD—single and recurrent episodes and persistent depressive disorder, otherwise known as dysthymia). It also provides a brief discussion of additional depressive disorders, bipolar disorder and related conditions (which in previous editions of the DSM were included together with depressive disorders under the moniker, “Mood Disorders”).

Depressive disorders are generally characterized by a cluster of symptoms including sadness or low mood, crying, loss of interest in once enjoyed activities, decreased energy and affect, and sleeping and eating changes. Typically, these changes must recur in an individual for at least 2 weeks and must represent a significant change in functioning from previous levels considered normal for that individual. Some research has addressed the manifestations of MDD, commonly referred to as depression, in children and adolescents as presenting in unique ways. For example, the American Academy of Child and Adolescent Psychiatry (2013) indicated that children and adolescents with depression exhibit symptoms including social isolation, extreme sensitivity to rejection or failure, and increased irritability. While these symptoms can also occur in adults, these are symptoms that may be of particular import for recognizing depression in youth, especially since young adolescents may have more difficulty articulating and identifying the character and/or sources of sad feelings. Dysthymia, which was at one time referred to as “minor depression” and is now referred to as “persistent depressive disorder” is a disorder described as a combination of chronic depressive disorder and dysthymic disorder.

Research indicates that adolescent depressive disorders are an important mental health issue given that at any one time approximately 1 in 20 children

A.M. Breland-Noble (✉)
Department of Psychiatry, Georgetown University
Medical Center, 2115 Wisconsin Avenue,
Washington, DC 20007, USA
e-mail: Alfiee.BrelandNoble@georgetown.edu

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and adolescents experience MDD (Treatment for Adolescents with Depression Study Team, 2003) and that the 3 month prevalence for any depressive disorder in youth is 2.2 % (Costello, Mustillo, Erkanli, Keeler, & Angold, 2003). Early epidemiological studies of pediatric and adolescent depressive disorders indicated a depressive disorder prevalence of between 4 and 8 % (Birmaher & Brent, 1998), while current epidemiological studies estimate a median adolescent MDD prevalence of approximately 4 % with a range of 0.2–17 % (Merikangas, Nakamura, & Kessler, 2009; Roberts, Roberts, & Chan, 2009). For Dysthymia, older reports suggest prevalence rates of 2–8 % while more recent estimates place the prevalence rate at approximately 1 % (Merikangas et al., 2010). Little is known about the diagnosis and treatment of dysthymia in youth overall and far less is known about the specifics of dysthymia in teens.

Older research suggests that African American youth do not disproportionately suffer from depressive disorders compared to youth of other US racial/ethnic groups. In fact, while older research in this area was equivocal (Angold et al., 2002; Roberts, Roberts, & Chen, 1997), current research by Merikangas et al. (2010) suggests similar rates of depressive disorders for African American, White, and Latino youth specifically. The Office of Minority Health of the American Psychiatric Association has suggested that many more African Americans (including teens) than are currently noted may actually meet subthreshold depression criteria, but are missed because their symptoms are not recognized as meeting the threshold of depression cited by clinicians (Primm, 2014). In general, far more attention is warranted for identifying accurate prevalence rates for depressive disorders including MDD and dysthymia to provide an accurate picture of the state of depressive illness among African American youth.

This chapter provides an in-depth analysis of the current state of knowledge regarding African American youth, depressive disorders, diagnosis, and treatment options. The following sections provide a brief overview of the historical research in this area, followed by an examination of the current literature specific to African American youth. To highlight the current state of the evidence regarding depressive illness in African American youth, this chapter includes a review of the general background literature on adolescent depression in general, highlights prevalence and associated disparities for African American youth, describes the sociocultural factors that may contribute to differences in depression treatment utilization along with the evidence for current treatments, and ends with recommendations for future research.

Adolescent Depression: An Overview

Depression is such a significant and burdensome illness that the World Health Organization ranks it among the leading causes of disability worldwide, ahead of cancer, cardiovascular disease, and other physical illnesses (World Health Organization, 2012). As challenging as it is for adults to manage this illness, depression can have severely detrimental effects on youth given their vulnerable developmental state. Unipolar depressive illness is presumed when a person has a sad mood and a loss of interest or enjoyment in activities previously loved lasting for at least 2 weeks with a cluster of associated symptoms including significant changes in eating habits (poor appetite or overeating), changes in sleeping habits (hypersomnia or insomnia), low energy, low self-esteem, poor concentration, and feelings of hopelessness (American Psychiatric Association, 2013). This illness can be acute or chronic, and research indicates that there are few differences in prevalence rates in the major racial/ethnic groups in the USA (including African Americans).

Given the aforementioned associations with poor health, educational deficits, suicidal ideation, poorer quality of life, and interpersonal impairment, adolescent depression is of great public health significance (Brook, Stimmel, Zhang, & Brook, 2008; Horwood et al., 2010). Depression reportedly increases youth risk for substance abuse with over 60 % of teens who abuse substances also meeting criteria for a mental health disorder with depression among the top co-morbidities (Armstrong & Costello, 2002;

Fleming, Mason, Mazza, Abbott, & Catalano, 2008; Jaycox et al., 2009). Epidemiological research by Caldwell, Assari, and Breland-Noble (see Chap. 1) suggests that the prevalence of depression in African American youth may be poorly estimated for a myriad of reasons. These under-estimations may in turn contribute to the disproportionately negative impact of depression on African American youth including being diagnosed with disruptive behavior problems rather than mood concerns, suicidal behaviors and direction toward juvenile justice interventions instead of behavioral, clinically focused interventions (Bean, Barber, & Crane, 2006; Breland-Noble, Burriss, Poole, & AAKOMA Project Adult Advisory Board, 2010).

Historical Research in African American Adolescent Depression

Early mental health literature in racially diverse populations neglected the mental health needs of African American youth in favor of focusing on psychopathology and the negative impact of genes and environment. Unfortunately, this perspective failed to account for a strengths-based perspective on African American youth behavior (APA Task Force on Resilience and Strength in Black Children and Adolescents, 2008). Historically, there was a significant focus on the prevalence of disruptive behavior disorders (like conduct disorder) and reports that African American youth were overrepresented among youth with antisocial behaviors and traits (Costello et al., 1988). Further, it was at times posited that African American youth bore a genetic predisposition to negative acting out (aggression and antisocial behavior) (Lynn, 2002). Finally, historically speaking, some researchers lamented the challenge of identifying measures that accurately assessed racial differences in prevalence rates for mental health problems (i.e., inability to distinguish between biased reporters vs. measurable differences in youth traits) (Epstein, March, Conners, & Jackson, 1998). Surgeon General Dr. David Satcher initiated a national conversation on considerations of cultural relevance for African American youth and other youth of color as well as a global focus on disparities reduction. His pioneering work helped usher in an era in which the mental health needs of African American youth could be addressed via newly created, culturally relevant healthcare frameworks. Through his seminal reports on mental health, researchers identified a limited research base for the epidemiology of disease prevalence and knowledge regarding effective treatments for mental illness in youth of color and African American youth in particular and detailed the great risks associated with depressive disorders for African American youth (U.S. Department of Health and Human Services, P. H. S, and Office of the Surgeon General, 2001). Specifically, the reports indicated that little was known about the mental health needs of African American youth and that future research was warranted to address both the precursors to mental illness and the protective factors that might prevent or delay the onset of mental illness.

Regarding the historical antecedents of what we now know about adolescent depression, early literature was generally sparse and exponentially so for Black youth. The late 1980s saw the emergence of structured clinical interviews for the assessment and diagnosis of mental illness in youth and for depression specifically. Instruments like the Kiddie Schedule for Affective Disorders and Schizophrenia for school-aged children—Epidemiological Version (K-SADS) and the Diagnostic Interview Schedule for Children (DISC) were routinely used to collect epidemiological data (Fleming & Offord, 1990). Unfortunately, most of the early studies from which the field derived information on the precursors, correlates, and prevalence of adolescent depression under-represented African American and other youth of color. Generally speaking, early prevalence studies suggested prevalence rates of 0.4–6.4 % among teens and highlighted the significant pattern of parent underreporting of depressive symptoms as compared to youth. Interestingly, this pattern of incongruence between parent and teen report is evident in African American youth and has been reported in recent years (Breland-Noble & Weller, 2012). As was the case for the next 20–25 years of research in adolescent depression, African American youth and other youth of color were referred to in aggregate with the term, minority. In the late 1980s and early 1990s, research on depression in youth began to highlight the unique features of the illness that distinguished it from adult depression. In particular, research had emerged to illuminate the possibility of different manifestations of depression between youth and adults with youth exhibiting symptoms like irritability instead of traditional depressive symptoms like sadness. Essentially, what we learned from the early years of research on adolescent depression was that (a) depression was identified in more teens than in young children, (b) adolescent depression was typically comorbid with other mental and behavioral health concerns, and (c) measurement issues early on plagued most of the large scale attempts at collecting data to accurately estimate depression prevalence and severity in US youth (Fleming & Offord, 1990). Overall, while the field was emerging and providing insight into the unique needs of adolescents with depression, knowledge on racially diverse youth in general and African American youth in particular lagged.

Current State of the Field

Over the past 15–20 years, research on adolescent depression has become increasingly nuanced and has even begun to examine depression in racially diverse youth in aggregate as well as by subpopulations (Chafey, Bernal, & Rossello, 2009; Lindsey et al., 2006; Reyes-Rodriguez, Riyera-Medina, Camara-Fuentes, Suarez-Torres, & Bernal, 2013; Rose, Joe, & Lindsey, 2011; Rossello, Bernal, & Rivera-Medina, 2008). Recent research supports the idea of few differences in depression prevalence estimates across racial groups of youth; the limited research base for the treatment of depression in youth of color including African American youth and the disproportionately negative impact that depressive illness may have on African American and other racially diverse youth. One important associated impact of depression is suicidal behaviors, gestures, and, in rare instances, completions (NIMH, 2003). The increase in the suicide rate for African American youth (10–19) from 2.1 to 4.5 per 100,000 or 114 % between 1980 and 1995 (Centers for Disease Control and Prevention, 1998) points to the potential detriments of untreated depressive illness and recent research strongly supports the idea of suicide as an understudied phenomenon with unequivocal evidence of negative impacts on African American youth in the areas of ideation, attempts, and completions. A lifetime prevalence of suicidal ideation has been reported at 7.5 % for Black youth (including Caribbean youth) and 2.7 % for suicide attempts (Joe, Baser, Neighbors, Caldwell, & Jackson, 2009). For African American adults aged 18 and older, results are even starker and indicate an 11.7 % lifetime suicidal ideation with 4.1 % reporting attempts (Joe, Baser, Breeden, Neighbors, & Jackson, 2006). Only recently have researchers begun to develop culturally congruent messages of suicide prevention for African Americans (Walker, Lester, & Joe, 2006) and attempted to utilize CBPR, faith-based mental health promotion, and other culturally relevant approaches to learn more about the links between depressive illness, suicide, and prevention for African American youth (Gone, Breland-Noble, & Hwang, 2013; Molock, Matlin, Barksdale, Puri, & Lyles, 2008; Rose, Joe, Shields, & Caldwell, 2014).

Considering Sociocultural Factors in Adolescent Depression

In part, the lack of information on depression in African American youth has hampered the field's ability to explain disparities in clinician conceptualizations of patient manifestations of depressive symptoms. For instance, research has demonstrated that African American youth may express depressive symptoms differently from their white peers. Researchers have indicated that a traditional marker of depression, sadness, and helplessness, may be viewed as a culturally incongruent way to express low mood with somatic complaints and irritability taking precedence (Choi, Meininger, & Roberts, 2006; Stein et al., 2010). In addition, research indicates that African American youth see the expression of sadness as weakness and believe that culturally, they are taught to see illnesses like depression as surmountable by will and prayer alone (Breland-Noble et al., 2010). Essentially, the culturally encapsulated mechanisms used by depressed African American youth to express themselves and the limited cultural competence of some service systems may, in part, explain why African American youth disproportionately receive their mental health treatment via the juvenile justice sector when compared to white youth (Breda, 2003; Dannerbeck & Jiahui, 2009; Trupin & Boesky, 2001). In other words, culturally incongruent systems may inadvertently mischaracterize the behavioral manifestations of depressive symptoms in this population resulting in more punitive, and less treatment focused, forms of redress. Unfortunately, research has demonstrated that African American youth are much less likely to be identified as having mental health need and to receive mental health services when they present with internalizing mental health problems, including depressive disorders (Gudiño, Lau, Yeh, McCabe, & Hough, 2009). These findings are supported by research indicating that US youth underutilize mental health treatment overall and that African American youth are significantly underrepresented among youth receiving standard care or evidence-based treatment. Therefore, it is clear that a critical gap exists between the availability of standard and evidence-based depression treatments and the numbers of African American adolescents and families benefitting from them (Breland-Noble et al., 2010).

Related to the negative sequelae of depressive illness in African American youth is an emerging body of research related to how differently African American youth are perceived from their white peers when exhibiting similar behaviors. For example, experimental research indicates that African American youth are significantly more likely to receive harsher judgments, harsher punishments, and disciplinary action, and to be perceived more negatively than their white peers as early as 10–12 years of age. It is possible that such harsh evaluations may negatively impact the manner in which African American youth with depressive behaviors are evaluated. For instance, among girls engaging in identical behaviors (e.g., staying outside the home without parents' knowledge or fighting) the darkest skinned African American girls receive significantly harsher punishments than White girls and African American girls with light skin (Hannon, DeFina, & Bruch, 2013). In addition, recent research indicates that African American boys are viewed by whites as substantially older than their true age by the time they reach the age of 10. In other words, when comparing African American and white boys, white subjects are far more likely to judge African American boys of the same age to be older, less deserving of the label "child" and more deserving of harsher punishments than white boys (Goff, Jackson, Di Leone, Culotta, & DiTomasso, 2014). If we factor these considerations into the gender-based differences in the exhibition of depression (i.e., propensity for externalizing vs. internalizing behaviors, culturally encapsulated norms regarding strength, weakness, and mental illness stigma), it illuminates the negative consequences of a lack of clarity for identifying and addressing depression in African American youth.

If effective mechanisms for reducing bias in the interpretations of the behaviors of African American youth remain elusive, it is possible that this lack of knowledge may exacerbate the elevated rates of Black youth receiving punitive interventions for exhibiting the same symptoms for which white youth receive clinical care. Evidence of these consequences is clear in the recent disclosures of disparities in policing faced by African American boys and men. Given these culturally embedded and environmentally rooted challenges, it is unsurprising that depressed African American youth disproportionately receive mental health treatment via the juvenile justice system when compared with white youth (Breda, 2003; Dannerbeck & Jiahui, 2009; Trupin & Boesky, 2001).

Over time, the literature on depression in African American youth has evolved to include rigorous research that incorporates a more nuanced and compelling recognition of the environmental, culturally relevant, and culturally congruent factors related to depression in the context of sociocultural concerns. For example, a recent report from the National Women's Law Center (NWLC) and the NAACP Legal Defense and Educational Fund, Inc. (LDF) indicated multiple reasons behind heightened school suspension rates and more harsh discipline among African American girls relative to their white peers (Smith-Evans, George, Graves, Kaufmann, & Frohlich, 2014). Unlike prior research, recent evidence points to environmental factors, including differential perceptions and valuations of behaviors, lack of access to high quality teachers, and disproportionate experiences with racism and discrimination, as accounting for a greater proportion of the variance in differential behavioral health outcomes and sequelae than inherent traits and problems. Unsurprisingly, their findings are supported by the broader mental health and disparities literature (APA Task Force on Resilience and Strength in Black Children and Adolescents, 2008; Zuckerman, 2003). Overall, these findings highlight the import of addressing the sociocultural antecedents and outcomes of racial disparities in depression.

Diagnosis of Depression in African American Youth

Given the prevalence and impairment of depressive illness, early detection and care are important for improving the long-term trajectory of quality of life for African American youth. Screening and assessment tools to accurately identify depression can go a long way toward helping to reduce disparities in treatment. In a recent review of the assessment of depression and suicidality measures for African Americans, only one measure was found that included data from a substantial number of African American youth (Breland-Noble, Sotomayor, & Burriss, 2015). The assessment, the Reynolds Adolescent Depression Scale (RADS) is a 30-item self-report measure for teens that was tested in one entirely African American sample of youth and two other racially diverse samples of youth. Besides the RADS, few assessments for depression have been tested in largely African American samples and that even when the assessments are used with African American youth, outcomes are neither analyzed in a disaggregated manner, nor are they examined in representative samples of (i.e., socioeconomically diverse) African American youth. For example, the Center for Epidemiological Studies Depression (CES-D) Scale has only been examined for its factor structure with African American youth twice and the evidence resulting from the two studies of African American youth is equivocal. First, Hales et al. (2006) found the same 4-factor model for African American and white girls in a sample of rural youth while Nebbitt, Mapson, and Robinson (2011) found a 3-factor model for the CES-D with African American youth. The 4-factor model includes interpersonal concerns along with negative affect, positive affect, and somatic complaints, while 3-factor model does not include interpersonal factors. These findings might, in part, be explained by the samples used to derive them as in each instance the samples were comprised of under-resourced African American youth. In the Hales et al. (2006) study, for example, the African American girls in the sample came from families that were significantly less educated and, it can be safely surmised from lower income brackets, than their white peers. As well, all of the youth in the Nebbitt et al. (2011) study were from low-income housing communities plagued by violence and located in the inner cities of New York and Pennsylvania (i.e., Philadelphia). While the findings from the two studies differ in outcomes, they point to one of the primary concerns in the literature on depression in African American youth; namely, that little of this research is generalizable to such a socioeconomically and geographically diverse population.

It is important to consider the import of accurate and culturally relevant diagnosis and measurement to account for within group differences exhibited in populations of people of color (Breland-Noble et al., 2015). Until such time as the research can include this idea consistently, gaps in our knowledge of the accurate diagnosis and assessment of depressive disorders in African American youth will likely persist.

Some literature suggests that clinician interpretation of depressive symptoms may differ for African American and white youth. For example, in an examination of clinician evaluation of baseline depressive behaviors in African American, White, and Latino adolescents (The Treatment of Adolescents with Depression Study, TADS), a predominantly white group of clinical evaluators rated African American and Latino youth more highly (i.e., worse) on observational items of the Children's Depression Rating Scale (CDRS) than white participants in the same study (Breland-Noble et al., 2015; Stein et al., 2010). Stated simply, on the CDRS, clinicians are asked to rate hypoactivity (bodily movements) and facial expressions of potentially depressed adolescents. The more a teen is observed to exhibit such behaviors, the greater the likelihood that he/she will be identified as meeting clinical criteria for depression. In the TADS study, African American and other youth of color were far more likely than their white peers to be evaluated by trained (mostly white) raters to exhibit more severe, negative behavioral symptoms than their white peers. It is easy to draw a connection from such subjective observations to newer literature which indicates Whites tend to view pre-adolescent African American boys (about age 10), with more suspicion, hostility, and negative ascriptions than they do white youth of the same age (Goff et al., 2014). Based on the empirical findings, it can reasonably be assumed that such negative subjective behavioral ascriptions of African American youth behavior will have disparately negative impacts on observations of depression in Black youth. Though it is clear that depression impacts youth of all races, African American youth may disproportionately experience the negative sequelae associated with depression including misdiagnoses of disruptive behavior problems (like oppositional defiant disorder or conduct disorder), engaging in under-detected suicidal thoughts and behaviors and overrepresentation in the juvenile justice system (Bean et al., 2006; Breda, 2003; Breland-Noble et al., 2010).

Overall, these subjective interpretations of African American youth behavior extend to the diagnosis and treatment of mental health problems like depression with significant implications. As indicated, a strong body of literature identifies African American youth as more likely to receive punitive interventions (like remediation or punishment) for exhibiting the same symptoms of depression as their white peers. This is particularly true for youth under the care of the justice system. In fact, when evaluating the relationships between youth race and referral to juvenile justice remediation vs. juvenile justice remediation with conjunctive mental health treatment, “Caucasian youth have more than twice the odds (OD = 2.67) of African American youth to receive a mental health treatment order, holding everything else the same” (Yan & Dannerbeck, 2011, p. 19). Furthermore, research in this area has been quite consistent over time with replications in multiple studies of youth from different regions of the country (Callahan, Cocozza, Steadman, & Tillman, 2012; Cappon & Laenen, 2013; Yan & Dannerbeck, 2011).

Depression Treatment for African American Youth

While cognitive behavioral therapy (CBT) is the most widely studied treatment for depression and anxiety in adults and youth, to date there are no published studies identifying CBT as an efficacious treatment for African American youth specifically (Breland-Noble, Childers, & Boyce, in press). While there is evidence to suggest that CBT might be a promising intervention, no studies have tested CBT in large enough samples of African American youth and subsequently analyzed findings by racial subgroups to definitively make a strong case for either efficacy or effectiveness. Seminal research in the area of adolescent depression was conducted by Brent and Poling (1997) who developed and tested a CBT manual for depressed youth. The adolescents in the individual CBT condition demonstrated marked improvement from pre- to post-treatment as demonstrated by lower rates of MDD post-treatment compared with individual Nondirective Supportive Therapy (NST) (17.1 % vs. 42.4 %), and a higher rate of remission than Systemic Behavior Family Therapy (SBFT) (37.9 %) or NST (39.4 %). Since that time, CBT with depressed youth has been replicated in a number of studies notably, TADS; the Treatment of SSRI Resistant Depression in Adolescents (TORDIA), Youth Partners in Care (YPIC), and Reaching Out to Adolescents in Distress (ROAD) (Asarnow et al., 2005; Brent et al., 2008; Kolko et al., 2014; Treatment for Adolescents with Depression Study Team, 2003). Overall, these treatments demonstrate positive effects for helping youth reduce their depressive symptoms over a few moths of active treatment. However, the findings are burdened by the low representative samples of African American youth. So though reviews of psychotherapy for the treatment of adolescent depressive disorders provide empirical support for the benefits of CBT over other forms of treatment in general (Brent et al., 1997; Clarke et al., 1995; Clarke, Rohde, Lewinsohn, Hops, & Seeley, 1999; Reinecke, Ryan, & DuBois, 1998; Wood, Harrington, & Moore, 1996) little of this research can offer insight into whether or not the treatments are as effective for depressed African American youth.

African American Beliefs about Depressive Disorders: Stigma and Treatment Seeking

The use of depression treatment is purportedly impacted by individual conceptualizations of the illness. In other words, for many families of depressed teens, treatment decisions are based on how families conceptualize the root causes of the illness—causes known to be culturally encapsulated. For example, it is widely accepted that mental illness is highly stigmatized among members of the general US population. The degree of stigma, however, is arguably higher in populations of people of color including African Americans (Breland-Noble et al., 2010; Breland-Noble & The AAKOMA Project Adult and Teen Advisory Boards, 2011).

Among African Americans, a growing body of literature points to the conceptualization of depressive illness as a problem of will or faith as opposed to a medical problem with physiological underpinnings (Breda & Riemer, 2012; Breland-Noble et al., 2010). For example, empirical research has demonstrated that African American and white parents hold very different beliefs about the origins of depression with African American families focusing more on personal responsibility and white families more on a medical illness model conceptualization (Jacobs et al., 2008). If families differ in their beliefs about the origins of depression, it is reasonable to assume that they would pursue different mechanisms for addressing the illness. This idea is supported by seminal research in the area of depression and mental health treatment seeking which suggests that African American and other families of color consult multiple non-mental health professionals before considering consultation with a trained mental health professional for treating their child's illness. Often the individuals consulted include members of their social networks like religious leaders, family members, and friends (Brown et al., 2014; Rickwood, Deane, & Wilson, 2007).

Racial similarities in depression prevalence might be anticipated to contribute to racial similarities in depression and other mental health service use. Unfortunately, more than 75 % of all psychiatrically impaired youth receive no mental health care, including African American youth who receive significantly less mental health specialty care, demonstrate lower treatment completion rates (African Americans at 33.5 % compared with Whites at 45.1 %) and in some instances receive 50 % less time in treatment overall than white peers (Alegria, Carson, Goncalves, & Keefe, 2011; Angold et al., 2002; Garland et al., 2005; Merikangas et al., 2009; Wu et al., 2001). Among African Americans, treatment underutilization has been attributed to resistance toward labeling problems as those requiring mental health care and financial barriers including insurance type and ability to pay (Breland-Noble, Bell, Burriss, & AAKOMA Project Adult Advisory Board, 2011; Snowden & Thomas, 2000). However, even when controlling for socioeconomic variables, African

American treatment utilization remains lower than that of Whites (Alegria et al., 2008; Cummings & Druss, 2011; Zimmerman, 2005).

Psychosocial barriers offer a viable explanation for racial differences in depression treatment use (Breland-Noble, 2004). Recent research offers support this idea by suggesting that while psychosocial barriers are not unique to African Americans, they are manifested in culturally encapsulated ways (Chandra et al., 2009; Lindsey, Barksdale, Lambert, & Ialongo, 2010; Rose et al., 2011). For example, African Americans' are reported to have significantly more stigmatized attitudes toward depression treatment, reliance on non-clinical faith-based supports, and concerns about the lack of cultural relevance of treatments (Breland-Noble et al. 2010; Breland-Noble, Bell, Burriss, & AAKOMA Project Adult Advisory Board, 2011; Lindsey et al., 2006) in contrast to Whites who view depression as a medical disorder and who exhibit higher levels of comfort with medical professionals and mental health providers (Jacobs et al., 2008; Musa, Schulz, Harris, Silverman, & Thomas, 2009). So while socioeconomic barriers are clearly important, they may not fully account for the differences in depression perceptions, outcomes, and service use that negatively impact African American youth and solidify their status as a mental health disparities population.

Conclusions

Given the limited research base for the prevalence, assessment, and treatment of depression in African American youth, future research should address the following. First, the field needs accurate, culturally relevant means of assessing depression in African American youth. Given the equivocal nature of the research on the reliability and validity of current assessments for depression in Black youth, future research should focus on establishing the psychometric properties of the most commonly used measures in socioeconomically and ethnically (i.e., African immigrant and Caribbean Blacks) diverse African American youth. Until the field has some sense that current measures accurately assess and describe the features of depression in African American youth, it will be difficult to say with certainty that we fully understand the prevalence and impact of depression on this population.

Second, continued research is necessary to better understand the antecedents and outcomes of depression in African American youth. Essentially, the current literature is not well developed enough to indicate with any certainty that current treatments for African American youth are either effective or acceptable by African American youth and families. The lack of any empirical studies with large and diverse samples of African American youth precludes our ability to fully understand what works and under what circumstances with this population. Further, even though there is a limited and emerging research base for the effective treatment of depression in African American youth using CBT, even this body of literature consistently demonstrates the difficulty of retaining African Americans in treatment long enough for them to see the full benefits of the care provided.

Third, future research must address the factors impacting the uptake of treatment by African American youth and families for depressive illnesses. Given the demonstrated import of depression as a chronic, debilitating yet treatable illness, future research must better engage African American youth and families on methods to treat depression and methods for the initiation and maintenance of care. Overall, research in multiple mental health domains indicates that African American youth and families are less likely to initiate and remain in treatment for a myriad of concerns (Breland-Noble, Bell, Burriss, & AAKOMA Project Adult Advisory Board, 2011; Breland-Noble, Bell, & Nicolas, 2006; Fraynt et al., 2014). This body of work is referred to as treatment engagement and is an emerging area of study. Interestingly, researchers have begun to explore innovative mechanisms for more effectively engaging African Americans in mental health treatment including school-based care and faith-based mental health promotion which involves engaging African Americans through Black church settings (Breland-Noble, Wong, Hankerson, Childers, & Sotomayor, 2013; Breland-Noble, Wong, Harding, & Carter-Williams, 2014; Molock et al., 2008; Rose et al., 2014; Williams, Gorman, & Hankerson, 2014). These approaches appear to have promise though more extensive studies are required to ascertain the extent to which they can be effective for reducing disparities in depression and other mental health treatment use.

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Eating Disorders

12

Regine M. Talleyrand

Introduction

Although eating disorders once were considered to occur most frequently among White upper middle class female adolescents, they are now known to affect all racial and ethnic groups (Franko, Becker, Thomas, & Herzog, 2007; George & Franko, 2010; Grabe & Hyde, 2006; Smolak & Striegel-Moore, 2001; Swanson, Crow, Le Grange, Swendsen, & Merikangas, 2011; Taylor, Caldwell, Baser, Faison, & Jackson, 2007). For African American youth, the prevalence of binge eating, which is associated with bulimia nervosa, binge eating disorder, and obesity, is equal or higher compared to all other racial and ethnic groups (Cassidy et al., 2012; Johnson, Rohan, & Kirk, 2002; Swanson et al., 2011; Taylor et al., 2007). Not surprisingly, African American youth also have the highest overweight and obesity prevalence rates (36 %) when compared to any other racial and ethnic group in the USA (Ogden, Carroll, Curtin, Lamb, & Flegal, 2010). Despite the increased presence of disordered eating attitudes and behaviors and obesity in African American youth, research in this area remains quite limited. This chapter summarizes current research on eating disorders in African American youth. Risk factors for African American youth are discussed. Finally, culturally relevant treatment approaches for African American youth presenting with disordered eating attitudes and behaviors are provided.

Eating Disorders Research in African American Youth

According to the Diagnostic and Statistical Manual of Mental Disorders-V (DSM-V; American Psychiatric Association, 2013), *anorexia nervosa* (AN) is characterized by distorted self-perceived weight or body image, persistent behavior that interferes with weight gain (i.e., energy intake restriction), and intense fear of gaining weight or of becoming fat. *Bulimia nervosa* (BN) is characterized by recurrent episodes of binge eating, recurrent inappropriate compensatory behaviors (e.g., purging) to prevent weight gain, and self-evaluation that is influenced by body shape and weight. *Binge eating disorder* (BED) is defined as recurring episodes of binge eating (i.e., excessive consumption of food within a short period of time) with the absence of recurring compensatory behaviors and the binge eating episodes are marked by feelings of lack of control. Although obesity is not included in the DSM-V since it is not considered

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R.M. Talleyrand (✉)
Counseling and Development Program, Graduate School of Education, George Mason University, Fairfax Campus, Krug Hall 201A, 4400 University Drive, MS 1H1, Fairfax, VA 22030, USA
e-mail: rtalleyr@gmu.edu

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a mental disorder, its definition will be included in this chapter given the high rates of binge eating and obesity in African American youth. *Obesity* is defined as having a body mass index (BMI) at or above the 95th percentile for children of the same age and sex (http://www.cdc.gov/obesity/childhood/basics.html).

Studies documenting eating disorders in African American children and adolescents are scarce. One of the reasons why research in this area might be limited is the fact that African American females generally are considered to be more satisfied with their bodies due to cultural acceptance of larger body ideals in the African American community and, thus, may be less vulnerable to experiencing eating disorder symptoms (i.e., drive for thinness, body dissatisfaction) associated with traditional eating disorders (i.e., AN or BN; Franko & George, 2009; Smolak & Striegel-Moore, 2001; Swanson et al., 2011; Talleyrand, 2010; van de Berg, Mond, Eisenberg, Ackard, & Neumark-Sztainer, 2010). However, researchers have also found that African American boys and girls tend to engage in binge eating behaviors at rates that are equal or higher to their White counterparts (Cassidy et al., 2012; Johnson et al., 2002; Swanson et al., 2011; Taylor et al., 2007). For example, Johnson et al. (2002) studied binge eating behaviors in a sample of 822 White and African American adolescents and found that African American boys endorsed the highest rate of binge eating (26 %) while binge eating rates for African American girls, White boys, and White girls were approximately 18 %. Also, Taylor et al. (2007) examined binge eating behaviors in a large sample of Black and African American adolescents and adults and found that male adolescents had more cases of AN, BN, and binge eating than female adolescents. Finally, Swanson et al. (2011) investigated the prevalence and correlates of AN, BN, and BED in a large, diverse sample of adolescents and found that Black adolescents had the highest prevalence rates of sub-threshold BED when compared to Latino and White adolescents. Collectively, these findings suggest that binge eating behaviors may be more common among African American adolescents and both young males and females may be at risk for engaging in this type of eating disorder symptoms.

The majority of published studies examining eating disorder symptoms in African American youth support the fact that African American youth experience fewer restrictive eating behaviors (i.e., dieting) and body image concerns, but more binge eating behaviors, yet these findings have not been consistent in all cases. In fact, some researchers have found empirical evidence that supports body dissatisfaction, weight concerns, and unhealthy weight control behaviors (i.e., dieting, fasting) in African American adolescents (e.g., Granberg, Simons, Gibbons, & Melby, 2008; Pernick et al., 2006; Robinson, Chang, Haydel, & Killen, 2001). For example, Robinson et al. (2001) conducted a study of overweight concerns and body dissatisfaction among racially/ethnically diverse third-grade children and found that African American girls had significantly more overweight concerns than did Asian American and Filipino American girls. These mixed research findings could be a consequence of the use of different assessment methods or could suggest that cultural factors may no longer protect African American youth as once was assumed (Granberg et al., 2008; Robinson et al. 2007).

In summary, the literature on disordered eating attitudes and behaviors in African American youth has yielded some inconclusive results. Generally, findings indicate that dieting and body dissatisfaction are less likely to occur in African American youth relative to other racial and ethnic groups, although binge eating occurs to a similar or even greater extent. This could be one potential explanation for why African American youth experience the highest prevalence of overweight and obesity compared to all racial and ethnic groups. However, the fact that some empirical evidence confirms the presence of restrictive behavior and body image concerns in African American youth and that being obese potentially may lead to increasing eating disorder symptoms in African American youth (Dalton et al., 2007; Kelly, Bulik, & Mazzeo, 2011) warrants researchers to give more attention to this area. Furthermore, although African American youth may have more flexible definitions as to what are considered "acceptable" weight and body ideals this does not necessarily apply to all African American youth, nor does it mean that they do not experience problematic eating concerns (Kelly et al., 2011). That is, how African American youth manifest their eating disorder symptoms may vary from traditional eating disorder etiology.

Potential Risk Factors for African American Youth

Several researchers have suggested that African American cultural norms protect African American youth from experiencing high levels of body dissatisfaction (Franko & George, 2009; Smolak & Striegel-Moore, 2001; Swanson et al., 2011; Talleyrand, 2010; van de Berg et al., 2010). However, research has also shown that African American youth (both girls and boys) engage in binge eating behaviors and, to a lesser extent, restrictive eating behaviors and weight concerns. The assumption that African American youth may be protected from experiencing negative body image may mask the fact that some overweight and obese African American children are unhappy with their size and experience associated levels of psychological distress (e.g., depression) (Kelly et al., 2011; Olvera et al., Robinson et al., 2001; Witherspoon, Latta, Wang & Black, 2013). Furthermore, African American youth who are satisfied with their bodies may experience different pressures regarding beauty and body esteem yet the traditional methods of evaluating these factors (e.g., use of weight, body parts) may not capture the real body appearance concerns of African American youth. For example, additional factors such as hair, skin color, and social comparisons with other Black women have been found to be more relevant when evaluating the body esteem of Black women (Poran, 2006). In addition, the increasing presence of Black celebrity media images may sometimes serve as a misrepresentation of Black women and men, and contribute to the struggles that African American youth experience regarding weight, body image, and overall appearance (Poran, 2006). In order to evaluate effectively the presence of eating disorder symptoms in African American youth, clinicians should explore African American youth's responses to various social, racial, cultural, and socioeconomic factors, which may serve as risk factors that go beyond the traditional risk factors (i.e., body dissatisfaction) assessed in the eating disorders literature.

Acculturation Acculturation refers to adopting the norms of the majority culture, including adjusting to a new language, customs, and rituals (Helms & Cook, 1999; Kim & Abreu, 2001). Acculturation has been suggested to play a role in the development of eating disorders such that African American girls who value European American cultural norms of thinness may exhibit severe dieting behaviors and body dissatisfaction that are consistent with anorexia and bulimia (Dounchis, Hayden, & Wilfrey, 2001; Smolak & Striegel-Moore, 2001). Furthermore, researchers have found that high levels of acculturative stress may result in a greater number of bulimic symptoms and body dissatisfaction (Perez, Voelz, Pettit, & Joiner, 2002). On the contrary, maintaining African American cultural values may protect African American girls from endorsing eating behaviors and attitudes characteristic of anorexia and bulimia given that social pressures regarding thinness may not exist within African American culture (Abrams, Allen, & Gray, I993; Logio, 2003; Smolak & Striegel-Moore, 2001; Thompson, 1994). Furthermore, obesity may not be stigmatized in African American culture as it is in the dominant European American culture (Smolak & Striegel-Moore 2001; Thompson, 1994). Finally, belonging to a collectivistic culture (i.e., African American culture) may result in less focus on individual body size and more focus on using larger ethnic group body norms as a reference point (Fernandez, Malacrne, Wilfley, & McQuaid, 2006). It is important to note, however, that adopting African American cultural norms may be related to higher levels of other unhealthy eating practices (e.g., binge eating) because this mode of coping with emotions is acceptable within the African American community and does not necessarily violate cultural standards of beauty of the African American cultural group (Harris & Kuba, 1997; Smolak & Striegel-Moore, 2001; Thompson, 1994). In sum, it appears that evaluating cultural values regarding food and body image in African American youth may be a valuable tool in understanding the development of eating disorders in this population.

Racial and Ethnic Identity Development Racial identity differs from the concept of acculturation in that it refers to how individuals understand themselves as racial beings. The concept of racial identity is related to the extent to which the person identifies with the racial group to which he or she supposedly belongs with the belief that commitment to one's racial group is necessary for healthy psychological functioning (Helms & Cook, 1999). Ethnic identity refers to the extent people accept, identify with, and affirm their ethnic heritage (Phinney, 1992). Researchers have suggested that high levels of ethnic and racial identity may assist ethnically diverse women in rejecting the societal beauty ideals of the dominant culture (Harris, 1994; Shuttlesworth & Zotter, 2011; Wood & Petrie, 2010).

Only a few studies to date have examined the relationships between racial or ethnic identity and eating disorder symptoms in African American women. A common finding using Helm's Black Racial Identity Model (BRIAS) has been that African American women who idealize Whiteness or use White-identified schemas (e.g., pre-encounter) tend to engage in restrictive forms of disordered eating attitudes and behaviors (e.g., dietary restraint, body dissatisfaction) (Abrams et al., 1993; Harris, 1994). Other researchers using the revised version of the Cross Racial Identity Scale (Cross & Vandiver, 2001; Vandiver et al., 2002) have found that self-hatred of African American group membership has a direct effect on maladaptive eating behaviors (e.g., bingeing/purging behaviors) as well as a significant indirect effect on maladaptive eating behaviors through body dissatisfaction (Flowers, Levesque, & Fischer, 2012). In the studies examining the link between ethnic identity and eating disorder symptoms, lower levels of ethnic identity in women of color have predicted higher rates of eating disorder attitudes and behaviors in African American women (Henrickson, Harrington, & Crowther, 2010; Shuttlesworth & Zotter, 2011; Wood & Petrie, 2010). Overall, results from these studies investigating the link between racial and ethnic identity development and eating disorder pathology in African American females suggest that low levels of racial and ethnic identity development influence the body evaluation and satisfaction of African American women as well as the use of disordered eating attitudes and behaviors.

Although no studies to date have looked at the relationship between racial identity and eating disorder symptoms in African American youth, it can be assumed that these results may be applicable to a younger population because African American children may also be exposed to discrimination, racism, and race-related events (Constantine & Blackmon, 2002; Day-Vines, Patton, & Baytops, 2003; Holcomb-McCoy, 2005). Simply put, African American youth who experience negative internalizations of African Americans may be at risk for developing disordered eating attitudes and behaviors. Therefore, understanding how African American youth respond to or internalize racism or race-related events may provide crucial information related to how they may manifest their eating disorder symptoms. For children and adolescents who identify as multiracial and/or multi-ethnic, they may experience additional stressors with respect to eating and body image concerns if cultural values from each group conflict. Although research and assessments in this area are strongly lacking, given that the number of children who identify as multiracial and/or multiethnic is increasing, additional research into this area is seriously warranted.

Socioeconomic Status

African Americans in the USA experience classism (e.g., disparate effects of social policy on low status groups) since they have less access to positions of power and authority than White men and women. Since there are a disproportionate number of African Americans who identify as low income, they are at risk for experiencing health concerns because they lack access to economic resources (Dounchis et al., 2001; Downing, 2004; Paul, 2003).

Empirical research supporting the relationship between socioeconomic status and obesity has been plagued with inconsistencies. Some researchers contend that lower SES African American women are at a higher risk for becoming obese than are higher SES African American women (O'Neill, 2003) while others have found no relationship between the prevalence of eating disorders and obesity and socioeconomic status in African Americans (Swanson et al., 2011; Zhang & Wang, 2004). With regard to poverty and obesity, some researchers have argued that women who struggle with poverty may suffer from malnutrition or from food diets high in fats and sugars (Dounchis et al., 2001; Paul, 2003). In fact, Kumanyika and Grier (2006) suggested that research typically shows low-income children typically live in areas that have a high concentration of fast food unhealthy restaurants than in predominately White and higher class neighborhoods. These low-income areas may present additional barriers including unsafe and often dangerous streets and neighborhoods that provide inadequate areas for children to play and exercise.

Given that African American families' SES is likely to be disproportionately lower than European American families (Dounchis et al., 2001; Paul, 2003), and that obesity is a problem among African American youth, it is important to consider that children who come from working or lower class African American families may be at risk for becoming overweight or obese. In contrast, although African American children from middle-class families may be protected from poverty and malnutrition (Day-Vines et al., 2003), they still may experience eating disorder attitudes and behaviors that are related to majority cultural values. Indeed, Robinson et al. (2001) found that higher SES was associated with more dieting behaviors, weight preoccupation, and thinner desired body shape in a sample of African American elementary schoolchildren. Given the inconsistencies and limited empirical findings in this area, counselors should be aware of the potential implications of SES on the presentation of eating behaviors and attitudes in African American youth.

Family Perceptions of Food, Weight, and Body Image Given the strong emphasis placed on family (including extended family members) in African American culture (Kempa & Thomas, 2000), how family members influence their children with respect to body satisfaction/body acceptance or food behaviors may impact whether or not African American youth are at risk for developing eating disorder symptoms. Some research has shown that family influences play a large role in how African American youth, particularly females, view their bodies (Franko & George, 2010). For example, when selecting an ideal body size, Black girls reported a greater influence by immediate family members (mother/grandmother, sisters, brothers) while White girls were more influenced by their peer group's selection of an ideal size. In addition, African American mothers have been found to convey their positive weight-related attitudes to their daughters (George & Franko, 2010). Then, again, African American parents' acceptance of larger body ideals and overweight status in their children could prevent them from recognizing the presentation of eating pathology in their children. For example, Elliot, Tanosky-Kraff, and Mirza (2013) investigated parent reports of binge eating among an obese group of diverse adolescents and found that African American parents were less likely to report observing binge eating in their children when compared to White and Hispanic parents (Elliot et al., 2013). Similarly, Dalton et al. (2007) investigated African American parents' awareness of their children's weight concerns and found that African American parents were not consistently aware of their daughter's weight concerns and weight control behaviors. Perhaps African American parents' cultural acceptance of heavier body ideals and overweight status in their children may prevent them from acknowledging weight-related concerns and unhealthy weight behaviors in their children (Dalton et al., 2007; Elliot et al., 2013). Given their role in African American families, parents and/or caregivers may be well poised to intervene in the development of children's unhealthy weight concerns/behaviors if their awareness of these behaviors is raised (Dalton et al., 2007).

Weight-Related Teasing The majority of research on weight-related teasing has been conducted on White samples. Findings from these studies have revealed that weight-related teasing by peers has been identified as a risk factor for binge eating and other weight control behaviors in females (Neumark-Sztainer et al., 2007; Suisman et al., 2008). For African American youth, it appears that weight-related teasing by parents seems to have a broader influence on girls' emotional and binge eating compared to weight-teasing by peers, but is not associated with other unhealthy weight control methods (e.g., dieting, skipping meals). These results could be attributed to the fact that African American youth, overall, tend to engage in more binge eating behaviors than restrictive behaviors (Cassidy et al., 2012; Johnson et al., 2002; Swanson et al., 2011; Taylor et al., 2007). Most importantly, these results suggest that family members' negative commentary can be largely influential in whether or not African American children engage in unhealthy eating practices.

Externalizing Behaviors Compared to the general population, African Americans are disproportionally exposed to a number of stressors (e.g., neighborhood violence, blocked opportunity structures, institutional racism) that can lead to both internalizing (e.g., depression) and externalizing (e.g., physical altercations) behaviors. In fact, researchers have found that increased experiences of daily and racial stressors in life have been linked to increased levels of both depression and physical violence, particularly among African American males who are transitioning from adolescence into adulthood (Estrada Martinez et al., 2012). With respect to the eating disorders literature, externalizing behaviors such as aggression, behavioral impulsivity, and conduct problems have been linked to bulimia type symptoms (Bodell et al., 2012). Since African American youth may experience additional societal stressors unique to their socialization experiences which could, in turn, lead to possible externalizing behaviors, it's possible that externalizing behaviors may serve as a risk factor for the development of eating disorder symptoms in this population. There is some research that suggests parental reports of African American girls' impulsivity were found to be associated with child reports of bulimic symptoms (binge eating) 9 years later—these results suggest that behavioral impulsivity in early childhood may potentially predict the presence of future eating disorder symptomatology in African American girls (Bodell et al., 2012).

Clinical Treatment Interventions

Multiple contextual factors such as acculturation, institutionalized racism, and classism are potential realities in the lives of many African American youth and may serve as risk factors to the development of eating disorder symptoms in this population. Yet, traditional risk factors such as body dissatisfaction are often used to evaluate the presence of eating disorder symptoms in all children (Grabe & Hyde, 2006; Kempa & Thomas, 2000).

A clinician's understanding of the sociocultural background in eating disorders presentation and help-seeking behaviors of African American could improve the culturally competent care provided to this population, particularly since African Americans are least likely to use mental health services when compared to all other racial and ethnic groups in the USA (Franko et al., 2007; Sanders-Thompson, Bazile, & Akbar, 2004; Whaley, 2001). Specific recommendations can be made for assessing risk factors in African American youth and for providing culturally competent counseling when working with African American youth who present with concerns regarding body appearance, weight, or eating attitudes and behaviors. Clinicians should be aware that there are many potential barriers to mental health care for African Americans based on their sociopolitical histories and cultural beliefs. For example, research suggests that people of color may underutilize treatment services for eating disorders because of lack of financial resources or insurance, strong distrust of the mental health system, fears that others may not be able to help, lack of awareness of resources, and feelings of shame and stigmatization (Alegria et al., 2007; George & Franko, 2006; Kempa & Thomas, 2000; Nicdao et al., 2007; Smart, 2010b; Sue & Sue, 2008). When working with African American youth and their families, clinicians should address issues of trust and potential fears early on in the counseling session. Furthermore, the provision of psychoeducational workshops in local schools, community centers, and religious organizations may be a culturally appropriate method of providing access to useful resources for African American families (Story et al., 2003).

School counselors and community therapists may want to use a more inclusive assessment system when working with African American youth who struggle with eating, weight, and body image concerns. Since researchers have shown that some traditional eating disorder measures (e.g., Eating Attitudes Test-26 [EAT-26]) may not assess the same constructs in people of color (Kelly et al., 2011), additional data sources including use of acculturation and racial or ethnic identity measures could provide a more comprehensive assessment system when working with African American youth. Consequently, use of a comprehensive assessment system could also improve rates of eating disorder diagnosis, treatment, and referrals among African American youth.

Understanding how a client's level of acculturation to his or her traditional culture or the dominant culture influences his or her beliefs regarding food and physical appearance is critical. Therefore, assessing levels of acculturation and enculturation with clients can provide useful information on how and why clients present with weight concerns. Potential questions to pose with clients who have experienced the acculturation process could include migration status, generational status, rationale for coming to the USA, language acquisition, duration of time spent in the USA, lack of family presence, and ethnicity of social networks. Use of a cultural genogram (Hardy & Laszloffy, 1995) could be an effective tool in eliciting information about the process clients and their families have gone through in coping with competing cultural demands involved in the acculturation process. In addition, a cultural genogram could potentially help clients uncover the messages related to the role of food, eating behaviors and attitudes, body image, and overall appearance that have been passed down in the family. Some questions could include what kinds of messages regarding beauty and appearance were you raised with? What makes you aware of your body? How do you think being African American affects how you view beauty and your appearance?

In addition to assessing levels of acculturation, clinicians should assess the degree to which African American youth have internalized racial oppression (Kempa & Thomas, 2000; Talleyrand, 2006, 2010). More specifically, helping clients identify the oppressive forces in their lives, helping them to accept and affirm their racial group membership, and to develop healthy body image could assist with how they view themselves as racial beings. As mentioned earlier, when working with bi-racial and/or multiracial clients it is important to assess the strength of their identification with each of their racial or ethnic groups since this may affect their beliefs regarding appearance.

Clinicians should consider referring to stress and coping models that address issues pertaining to African American youth to assist them in working with their clients. Given that African Americans are disproportionally exposed to a number of stressors (e.g., neighborhood violence, blocked opportunity structures, institutional racism) that can lead to both internalizing (e.g., depression) and externalizing (e.g., physical altercations) behaviors, exploring the coping strategies African American youth use to respond to these stressors may be a useful tool in the counseling process. For example, assessing the relationship between African American youth's appraisal of racial stressors and the enactment of subsequent coping strategies, particularly overeating, may be useful in evaluating how they manage their racial stress and in evaluating whether negative physical health outcomes (e.g., obesity) are related to the use of particular coping strategies. Use of formal measures such as the Schedule of Racist Events (SRE; Landrine & Klonoff, 1996) or the Index of Race-Related Stress (IRRS; Utsey & Ponterotto, 1996) may help counselors assess the types and frequency of race-related stress experienced by African Americans. Informally, clinicians can ask clients to list the most salient stressors in their lives and then have them describe the types of coping mechanisms (e.g., active or passive) they use when they encounter these stressors.

In addition to assessing the sociocultural factors outlined above, specific recommendations can be made regarding counseling therapies and modalities that may be effective when working with American youth who present with eating disorder symptoms: For example, cognitive behavioral therapy (CBT) is an evidence-based approach that has been found to be effective in the treatment of eating disorders; in particular, in treating clients who struggle with bulimia (American Psychiatric Association, 2006; Smart, 2010a, 2010b). The use of CBT could be effective when working with African American youth because of its emphasis on a solution-focused, time limited approach, educational and practical focus, collaborative action, and lack of emphasis on the past or family. These components of CBT may be well accepted among groups that have been underrepresented and may distrust the mental health care system (Sue & Sue, 2008; Smart, 2010a, 2010b). Nonetheless, it should be noted that counselors still may need to adapt this approach to include an exploration of the contextual factors and cultural values that are relevant in understanding how a client perceives her problem (Sue & Sue, 2008; Smart, 2010a, 2010b). For example, body satisfaction for African American youth may include an evaluation of a client's facial features (skin color, nose) and hair (Grabe & Hyde, 2006; Mintz & Kashubeck, 1999; Smart, 2010b) in addition to body parts.

Interpersonal therapy (IPT) is another evidence-based therapy that can be used with clients in individual or group settings (APA, 2006). IPT is a time limited and semi-structured form of therapy that focuses on assisting clients to identify and cope with the interpersonal difficulties they face in their lives rather than focus specifically on their disordered eating thoughts and behaviors (Choate, 2010). The assumption in IPT is that women may use disordered eating behaviors to cope with the relational difficulties they may be experiencing including lack of social support, conflict with peers, and family difficulties (Choate, 2010). Given the fact that African American youth may struggle with multiple life stressors (e.g., acculturation processes, role conflict, experiences of racism, racial identity) that could impact their interpersonal relationships, the use of IPT could provide the contextual framework necessary when working with youth who present with disordered eating attitudes and behaviors. Also, unlike CBT, IPT does not focus on internalization of the thin ideal, which is a behavior that is rarely endorsed by African Americans (Kelly et al., 2011).

Group counseling may be an effective mode of service delivery when working with African American youth because of the nature of the experience—group counseling calls for close relationships among group members and a sense of community (Williams, Frame & Green, 1999). The emphasis on close relationships and community is consistent with the collectivistic values embedded in African American culture (Green, 1994; Kempa & Thomas, 2000). Further, use of group therapy versus traditional individual therapies with African American youth may feel less threatening given potential barriers (e.g., distrust of the mental health system) related to accessing mental health services among this population (George & Franko, 2010; Williams et al., 1999). Finally, the empowering and egalitarian nature of the group counseling process also may be appealing to African American youth who may face several forms of oppression on a daily basis (Coker, Meyer, Smith, & Price, 2010).

Family therapy has been considered another effective form of therapy for clients struggling with eating disorders since it deals with family relational problems that may contribute to the development of an eating disorder (APA, 2006) and is particularly helpful for adolescent clients (Read & Hurst, 2013). Given the strong value placed on family (including extended family members) in African American culture and the influence of family members on children's perceptions of their appearance and food behaviors (Olvera et al., 2013), family therapy may be an effective and culturally relevant form of therapy when working with African American clients who present with eating and body concerns (Kempa & Thomas, 2000). However, it is imperative that family members are educated about the general risk factors associated with the development of eating disorders since lack of awareness could lead to lack of recognition of eating pathology in their children. Nonetheless, parents and/or caregivers may be well poised to intervene in the development of children's unhealthy weight concerns/behaviors if their awareness of these behaviors is raised (Dalton et al., 2007; Elliot et al., 2013).

Motivational interviewing techniques may also be another effective form of therapy when working with African American youth who present with eating disorder symptoms. Motivational interviewing is an empathetic style of counseling that consists of working collaboratively with clients to explore and reduce barriers to behavior change (Seligman, 2004). Motivational interviewing interventions include techniques that extend beyond weight-related concerns and have been found to be effective with obesity prevention programs (Lydecker, Cotter, Gow, Kelly, & Mazzeo, 2013). Use of motivational interviewing techniques that extend beyond weight-related concerns may be useful for African American youth given the fact that they may focus less on weight concerns.

Conclusion

Historically, eating disorders were known only to occur among White female adolescents, yet more recently, have been found to affect all racial and ethnic groups (Franko et al., 2007; George & Franko, 2010; Grabe & Hyde, 2006; Smolak & Striegel-Moore, 2001). The existing (albeit limited) research examining eating disorders in African American youth suggests that African American youth, primarily girls, engage in lower levels of body dissatisfaction and restrictive eating behaviors when compared to their White counterparts. However, African American youth (both boys and girls) tend to engage in equal or greater rates of binge eating behaviors. Further, the increasing number of African American youth diagnosed with obesity and overweight status along with the relationship between obesity and disordered eating behaviors and body dissatisfaction highlights the possibility that more African American youth will present with eating disorder symptoms in the future. Therefore, clinicians should not assume that African American youth, overall, would be protected from developing disordered eating symptoms. Furthermore, how African American youth present their eating disorder symptoms may vary from traditional clinical presentations of eating disorder symptomatology. That is, sociocultural factors (e.g., institutionalized racism, racial identity, cultural values) should be included when assessing how African American youth manifest their eating disorder symptoms. Use of culturally appropriate obesity prevention programs could also be effective for this population since obesity rates are increasing in the African American population (Story et al., 2003). Finally, future research should employ the use of both quantitative and qualitative methods of evaluating body appearance and eating attitudes and behaviors in African American youth since most traditional assessments have been normed primarily on White samples and may not provide a comprehensive picture of the complex experiences of African American youth.

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13

Substance Use

Sharon F. Lambert and Cheryl Anne Boyce

Introduction

Substance use disorder onset often occurs during adolescence (National Institute on Drug Abuse, 2014). Unfortunately, African American youth can encounter negative health consequences and incarceration from substance use disorder at higher levels when compared to their peers. Interventions to reduce or resolve African American adolescents' drug use may well have long-term implications for the health and well-being of African Americans into adulthood, including risk for HIV/AIDS. Effective adolescent substance use treatments can disrupt racial disparities in health, education, employment, criminal justice involvement, and economic status that may stem, at least in part, from substance use problems. Therefore, it is extremely important to understand the substance abuse treatments that are effective for African American youth.

African American youth, in general, have evidenced less access to behavioral health services and encountered lower quality health services (e.g., Alegria, Carson, Goncalves, & Keefe, 2011; IOM, 2003). Despite advances in adolescent substance use treatment, disparities in treatment participation have been documented (e.g., Saloner, Carson, & Cook, 2014). Pooling data from years 2001 to 2008 from the National Survey on Drug Use and Health (NSDUH), Black and Hispanic adolescents were found significantly less likely than White adolescents to receive any substance abuse treatment (Cummings, Wen, & Druss, 2011). It should be noted, however, that this treatment disparity was less after adjusting for mental health treatment, and more pronounced among youth with substance dependence. According to the NSDUH data from 2003 to 2011, among Black adolescents ages 12–17 needing substance abuse treatment (as indicated by meeting criteria for substance abuse or dependence, or receipt of substance use disorder treatment in the past year), only 7.4 % received that treatment compared to 8.1 % for persons of other races and ethnicities (Substance Abuse and Mental Health Services Administration [SAMHSA], 2013). Among Black young adults ages 18–25 in need of substance abuse treatment, rates were similar to other groups, 7.7 % received substance use treatment compared to 7.5 % of other races and ethnicities (SAMHSA, 2013). The data suggest that developmental stage (i.e., adolescent compared to young adult) and co-occurring mental

S.F. Lambert (✉)
Department of Psychology, The George Washington University, Washington, DC 20052, USA
e-mail: slambert@gwu.edu

C.A. Boyce
U.S. Department of Health and Human Services, National Institute on Drug Abuse, National Institutes of Health, 6001 Executive Blvd, Rockville, MD 20852, USA

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health disorders influence substance use treatment patterns.

The type of substance abuse treatment also varies among racial/ethnic minority youth. A review of research focused on racial and ethnic disparities in substance abuse treatment revealed that African American adolescents with substance use disorders were less likely than Latino, Asian, and White adolescents to receive specialty care (i.e., inpatient hospital, residential rehabilitation, outpatient rehabilitation, outpatient mental health facility, private doctor's office for drug or alcohol services, and halfway house) for their substance use (Alegria et al., 2011). Both African American and Latino adolescents also used less informal services and care (i.e., self-help groups and religious or spiritual services) by comparison with Asian and White adolescents (Alegria et al., 2011). In addition to differences in service use patterns, disparities in quality of care for substance use treatment is an important consideration. One aspect of quality of care received for substance use problems is treatment efficacy. To date, few treatments for substance use problems have been identified as efficacious using ethnic minority youth, and few have indicated specificity for the type of substance, treatment modality, or treatment duration. Participation in interventions which are not proven as efficacious for African American youth may limit their successful treatment outcomes. In order to understand treatment disparities for African American adolescents, one must consider that research focused on the utility of substance use interventions for these youth and disparities in treatment engagement, persistence, and outcome may rely on intervention techniques without proven standards of evidence for African American youth.

Empirical Evidence

Differences in substance use prevalence, predictors, and consequences for African American adolescents compared to adolescents of other backgrounds have implications for the utility of some empirically supported treatments for African American youth, and have led some to question the use of empirically supported treatments in this population. Becker, Stein, Curry, and Hersh (2012) noted that determining if substance use treatments are effective for different ethnic groups requires an understanding of: (1) whether youth from different groups differ at entry into treatment; (2) whether the treatment is associated with significant group differences at the outcome assessment(s); and (3) whether difference in treatment outcome(s) are attributable to baseline differences between groups. Unfortunately, there is limited evidence regarding the efficacy of substance use treatments for African American youth. There are few randomized controlled trials with samples that are exclusively African American or that test differential treatment effects by ethnicity. Several noteworthy reviews have described adolescent substance use treatment programs and outcomes (e.g., Catalano, Hawkins, Wells, Miller, & Brewer, 1990; Deas & Thomas, 2001; Hogue, Henderson, Ozechowski, & Robbins, 2014; Hogue & Liddle, 2009; Strada & Donohue, 2006; Waldron & Turner, 2008; Williams & Chang, 2000). Across these reviews, however, there is considerable variation as to whether or not ethnicity is examined or discussed as important for understanding treatment outcomes. This difficulty is likely due, at least in part, to the fact that few studies have sufficient proportions of African American participants and measures of culturally relevant factors to draw conclusions about substance use treatment. It is not clear whether empirically supported treatments for adolescent substance use are most appropriate or most effective for African American adolescents without relevant methodological and cultural factors included in research studies.

The limited research evaluating substance use interventions, and empirically supported treatments in particular, for African American adolescents necessitates a review of treatments and programs that include African American youth and, ideally, examine race/ethnicity as a moderator of treatment factors such as treatment completion, treatment satisfaction, and treatment outcome. Strada, Donohue, and Lefforge (2006) reviewed the literature examining adolescent substance use treatment to identify studies that considered the role of ethnicity in treatment design, delivery, and outcome. Consideration of ethnicity included study characteristics such as reporting representation of ethnic groups; using ethnicity as a factor in measure selection or assignment to treatment condition; examining pretreatment equivalence of ethnic groups; or evaluating differential response to treatment. While 94 % of the studies included ethnicity to some extent, only 28 % of the studies included ethnicity in the design and even fewer (6 %) included ethnicity in the analyses. Using these review criteria, the authors found only 18 peer-reviewed studies with adolescents aged 21 years or younger, using random assignment to treatment condition, having an outcome measure that directly measured substance use, and considering the role of ethnicity. Only 7 of these studies included African American adolescents. Of the remaining 11 studies, 3 did not specify the ethnicity of the sample and 3 did not specify the ethnicity of the non-white participants.

The number of controlled intervention studies evaluating substance use interventions with African American adolescents remains small even when expanded to consider preventive interventions. Szapocznik, Prado, Burlew, Williams, and Santisteban (2007) reviewed drug abuse prevention programs found to be efficacious for African American and Hispanic youth considering their differences in racial identity, immigrant patterns, culture, and nativity. Only randomized controlled trials with primarily African American or Hispanic samples ages 12–17 were included in their review spanning 1985–2006. They found six preventive interventions that showed efficacy with African American youth and four preventive interventions that demonstrated efficacy for Hispanic youth. Only one drug abuse treatment, Multisystemic Therapy (MST; Henggeler et al., 1991), demonstrated efficacy with African American youth, and only one showed efficacy for Hispanic youth, Brief Strategic Family Therapy (BSFT) (Santisteban et al., 2003). Common across these successful interventions was explicit attention to family and culture, suggesting that these factors should be included in substance abuse prevention programs for both African American and Hispanic youth.

Methodological Concerns

Evaluation of the available substance abuse treatment outcome research for African American adolescents requires attention to the considerable range in study methodology and rigor, and the resultant issues that must be considered in order to interpret study results appropriately. Of primary importance for a clear understanding of substance abuse treatment outcomes for African American adolescents is the reporting of ethnicity. Unfortunately, adolescent substance use treatment research does not report ethnicity with sufficient specificity to characterize groups (Strada et al., 2006). In some studies, African American youth are grouped with youth of different ethnicities, particularly youth of Hispanic descent. While urban African American and urban Hispanic youth can share similar contextual risks, including residence in settings characterized by low economic resources, crime, and violence, they may suffer from these risks differently. The importance of protective factors such as family, community, and culture is often shared by African and Hispanic youth, but they typically differ in their experiences of acculturative stress and historical trauma. The differences in these risk and protective factors for African American and Hispanic adolescents' substance use raise concerns about the mechanisms of change for interventions and whether the same intervention would benefit each group in the same way. The genetic, historical, social, and cultural heterogeneities within African American, Hispanic, and other racial/ethnic minority groups have not been addressed adequately in understanding the domains of risk and protection that could be specific and strategic targets for interventions (Szapocznik et al., 2007).

Sample characteristics, particularly referral sources and other sampling biases, are important to consider when evaluating substance use treatment research for African American youth. Many studies of adolescent substance use include participants from public funding sources and involve the juvenile justice or court system (e.g., Shillington & Clapp, 2003). African American youth are disproportionately represented in the juvenile justice and court systems, and therefore these systems can offer a relatively large group of African American adolescents as participants. However, youth in the juvenile justice system are likely different in ways that can influence treatment outcomes, including the motivation for treatment as court-ordered versus self-directed. For example, these youth may have more co-occurring externalizing and problem behaviors than youth not involved in the juvenile justice system. Also, the types of substances and severity of use targeted in treatment programs geared towards juvenile justice involved youth may differ from programs targeting other youth. Mandated treatment by the court can have a different set of considerations for treatment engagement, retention, and outcome compared to treatment for youth self-referred or referred through other means. Thus, the referral source may have consequences for treatment course and affect the generalizability of study findings.

Findings from a unique study of substance use treatment outcomes found that while African American and Hispanic adolescents were more frequently referred to treatment by the criminal justice system, White adolescents were mainly referred to treatment by family and friends (Rounds-Bryant & Stabb, 2001). Strikingly, White adolescents were engaged in serious illegal activity such as crimes against persons at greater rates than African Americans and Hispanics when referred for treatment. Although African Americans were the least likely to meet diagnostic criteria for a mental disorder or substance dependence, they were more likely to engage in high HIV sexual risk behaviors when referred for treatment (Rounds-Bryant & Stabb, 2001).

A difficulty with research studies that do include African American adolescents is that the sample sizes may be too small to examine treatment effects for these adolescents by ethnicity and by treatment interactions (Szapocznik et al., 2007). Many samples also do not have adequate numbers of females and males to examine gender differences in treatment engagement, retention, and outcome and by race/ethnicity. Yet again this may reflect that referral sources used in substance use research often include juvenile justice system involvement. Male youths are more likely involved in the juvenile justice system than female youths, limiting samples to few female participants. Another concern is that males and females in the juvenile justice system tend to have different types of substance use involvement and co-occurring risk factors. Females are more equally represented in drug abuse preventive intervention studies and findings. Care should be taken in recruitment strategies and design to represent African American females more equally in substance use treatment studies. In sum, the empirical evidence for substance use treatments varies by race/ethnicity, gender, and context and needs improved participant recruitment, research design, methodologies, and analyses reflecting attention to the diverse population of adolescents suffering from substance use.

Substance Use Treatment Interventions and Outcomes

Several substance abuse treatment programs demonstrate efficacy for African American youth, but do not examine differences in treatment outcome for African American youth (Strada et al., 2006). Given the scarcity of programs with rigorous tests of their utility for African American youth, this review includes both treatment interventions that have demonstrated utility with African American youth, and those with samples of ethnic minority youth including African American adolescents that show promise. In those cases in which specific treatment outcome findings for African American youth are not available, the research conducted with the sample of combined ethnicities is described to provide the state of the current knowledge. Broad categories of interventions for which there are limited data available on ethnic minority youth, or African American youth, are discussed in order to highlight areas in need of research to inform substance use interventions.

Family Therapies

An extensive body of developmental psychopathology research indicates the tremendous role of the family context in the development of substance use and other problem behaviors. Family-based interventions for substance use have been guided by this research, and have shown impressive effects in terms of treatment engagement and retention, and positive outcomes related to lowered substance use and related problem behaviors (Hogue & Liddle, 2009; Hogue et al., 2014). Positive effects have been observed across multiple types of family treatments, with the best outcomes typically observed for family therapies that embrace a multisystem focus. Huey and Polo's (2008) review of evidence-based psychosocial treatments for ethnic minority youth yielded only two treatments focused on substance use that met criteria. Following guidelines from Chambless and colleagues (Chambless et al., 1996, 1998), they labeled Multidimensional Family Therapy (MDFT; Liddle et al., 2001) as probably efficacious for ethnic minority youth and Multisystemic Therapy (MST; Henggeler, Schoenwald, Borduin, Rowland, & Cunningham, 1998) as possibly efficacious for ethnic minority youth, with the distinction in labels indicating the need for replication in the latter case.

Multidimensional Family Therapy (MDFT) Multidimensional Family Therapy (MDFT) is an outpatient intervention that targets risk and protective factors across the multiple domains that are important for the development and maintenance of adolescent substance abuse and related behaviors. Developers describe it as an intervention system with different versions that can be adapted for prevention or treatment, and used with diverse populations in several treatment delivery settings. This manualized intervention for youth ages 11–18 typically consists of 12–16 weekly or bi-weekly sessions that target four domains, (1) the adolescent domain (e.g., reasons for drug use; perceptions of drug harmfulness), (2) the parent(s) domain (e.g., parent stress; parenting practices), (3) the family interactional domain (e.g., decreasing conflict and improving communication), and (4) extrafamilial domains (e.g., appropriate engagement with social systems in which the adolescent participates such as school, community, juvenile justice) (Liddle, 2002; Liddle, Rowe, Dakof, Henderson, & Greenbaum, 2009). MDFT has demonstrated benefits over group and individual cognitive behavioral therapy for substance abuse.

Liddle, Rowe, Dakof, Ungaro, and Henderson (2004) examined the post-treatment and 12-month outcomes of MDFT in a sample of ethnically diverse adolescents ($N = 80$; 38 % African American) referred for outpatient treatment from a variety of sources including juvenile justice, school, other service providers, or family. Participants were randomly assigned to MDFT or a peer-based group intervention based on social learning and cognitive behavioral principles. Youth ranged in age from 11 to 14 years old (mean age 13.7), and were assessed at intake, 6 weeks after intake, at discharge, 6 months post-intake, and 12 months post-intake. Compared to the peer-group intervention, youth in the MDFT condition showed more rapid decreases in alcohol and cannabis use over the course of treatment. In addition, MDFT was more effective in reducing risk and promoting protective factors in multiple domains identified as important in the etiology and maintenance of substance use behaviors at the end of treatment. MDFT youth also showed more rapid decreases in externalizing behaviors, affiliation with deviant peers, and disruptive classroom behavior, as well as more improvement in family cohesion from pre-to post-treatment (Liddle et al., 2004). In addition, youth receiving MDFT had fewer days of substance use, increased abstinence from substance use, and fewer substance use related problems at 12 months post intake. Over the 12-month period, youth receiving MDFT decreased delinquent behavior more quickly, reported decreases in distress more quickly than youth in the group intervention, and were less likely to be arrested or placed on probation compared to adolescents in the group intervention (Liddle et al., 2009).

MDFT also has demonstrated utility as compared to individual cognitive behavioral therapy. The efficacy of MDFT and individual cognitive behavioral therapy was studied among a sample of primarily African American (72 %) and predominantly male (81 %) adolescent drug users ranging in age from 12 to 17 (mean age 15.4) (Liddle, Dakof, Turner, Henderson, & Greenbaum, 2008). MDFT and individual CBT yielded similar reductions in youth cannabis abuse at the 6-month follow-up. However, MDFT was associated with greater decreases in substance use severity and other drug use, and greater increase in abstinence at 6 and 12 months post-treatment. Of note, the benefits of MDFT over individual CBT were greater for youth with higher baseline substance use and psychiatric comorbidity (Henderson, Dakof, Greenbaum, & Liddle, 2010).

Multisystemic Therapy (MST) MST is a manualized, evidence-based intervention that targets risk factors in multiple domains including individual, family, peer, school, and neighborhood. The goal of MST is to change how youth function in these and other settings in order to promote positive behavior and decrease antisocial behavior. This approach is grounded in ecological models that place individuals as part of an interconnected set of systems that together influence behavior. Thus, MST targets the individual, family, peer, and community-level determinants of adolescent substance use. Service is typically home-based, and therapists are available 24 h per day 7 days a week. The average treatment length is up to 60 h over a period of 4 months.

Henggeler, Pickrel, and Brondino (1999) evaluated the effectiveness of MST among a sample of juvenile offenders ($N = 118$; 50 % African American) ages 12–17 (mean age 15.7) who met DSM-III-R criteria for substance abuse or dependence. The majority of the sample presented with co-occurring disorders. Youth and families were assigned to MST or usual community services for juvenile justice involved youth. Few youth in the comparison condition had received services during the first 5 months after recruitment into the project, a similar time span for the MST intervention delivery; when youth did receive services, the quality of services was poor. Results revealed that MST decreased self-reported alcohol, marijuana, and other drug use after treatment completion; however, changes were not maintained at the 6-month follow-up and findings were stronger for females and younger adolescents. Over the course of the intervention and through the 6-month follow-up, youth participating in MST had significantly fewer days in out-of-home placements than youth receiving usual care; although MST youth were incarcerated more often, the length of incarceration was shorter. Tests of race as a moderator of treatment outcome (i.e., African American versus White) were not significant. Eighty of the youth participated in the 4-year follow-up. The sample was primarily male (76 %) and 60 % were African American. MST was associated with reductions in aggressive criminal activity and biological measures indicated increased marijuana abstinence for MST youth as compared to youth in usual community services (Henggeler, Clingempeel, Brondino, & Pickrel, 2002). Race did not moderate treatment outcomes.

Another trial evaluated the effectiveness of juvenile drug court compared to family court for a sample of 161 juvenile offenders ($N = 161$; 67 % African American) meeting criteria for substance abuse or dependence (Henggeler et al., 2006). The randomized design had four conditions: family court with usual community services, drug court with usual community services, MST, or MST enhanced with contingency management. A primary aim was to determine whether the addition of evidence-based clinical practice enhanced outcomes for youth in drug court. Youth in drug court experienced greater improvements in substance use and reductions in criminal behavior, and substance use outcomes for youth in drug court were enhanced with the addition of evidence-based treatments.

Brief Strategic Family Therapy (BSFT) The goal of brief strategic family therapy (Szapocznik, Hervis, & Schwartz, 2003), an evidence-based family therapy, is to improve relationships within the family and between family members and other systems (e.g., peers, school) that influence substance use and other problem behaviors. This family systems approach focuses on patterns of interaction between each family member based on the assumption that these patterns influence the behavior of each member of the family. Thus, BSFT focuses on changing patterns of interaction that are relevant for adolescent substance abuse (Szapocznik et al., 2003). BSFT is distinguished from MDFT and MST by its integration of structural (Minuchin & Fishman, 1981) and strategic (Haley, 1976) theories, and focus on within family processes (Santisteban, Suarez-Morales, Robbins, & Szapocznik, 2006). Initially developed for Hispanic families, BSFT integrates research-informed techniques for engaging, joining, and assessing families, and restructuring family interactions involved in the etiology and maintenance of adolescent substance use and related behaviors. This strong empirical base also includes integration of results of basic research with Hispanic families with particular attention to the role of culture and stressors these families may encounter (Santisteban et al., 2006). BSFT has demonstrated efficacy with Hispanic adolescents with drug use and related behaviors, as indicated by several studies showing BSFT's positive effects in engaging and retaining families, improving family functioning, and reducing drug use in Hispanic families (e.g., Santisteban et al., 2003).

Research with multiethnic samples including African American adolescents has yielded similar positive results. For example, Robbins et al. (2011) conducted a randomized effectiveness trial to compare BSFT with treatment as usual in a multiethnic sample of 480 adolescents (110 African American; 22.9 %) referred for outpatient treatment for substance abuse at 8 sites across the U.S. Participants were predominantly male ($N=377$; 78.5 %) and nearly three-quarters were referred from the juvenile justice system. The BSFT intervention was 12–16 sessions conducted over 4 months, with variation in length dependent on improvements in behaviors of concern and family functioning. The treatment as usual condition was standard services for drug use provided by community agencies. BSFT was more effective in engaging and retaining adolescents in treatment, and improving family functioning. While adolescents in the treatment as usual (TAU) condition reported significantly more substance use at the 12-month follow-up, Robbins et al. (2011) questioned the clinical significance of this finding because the number of days of drug use was low in both the TAU and BFST groups, a floor effect.

As part of a trial testing the efficacy of BSFT for high risk minority youth ($N=104$; 25 African American), Coatsworth, Santisteban, McBride, and Szapocznik (2001) evaluated the effectiveness of BSFT for engaging and retaining youth in treatment. Participants were predominantly male (75 %), between the ages of 12 and 14 (mean age 13.1), and referred for internalizing or externalizing problems, academic difficulties, or initiation of drug or alcohol use. Compared to treatment as usual in a community agency, BSFT demonstrated more success with engaging and retaining youth; in addition, BSFT was more successful in retaining youth with greater symptom severity. It should be noted, however, that the findings were not examined for Hispanic and African American youth separately, nor were there tests of treatment by ethnicity interactions; thus, it is not possible to draw strong conclusions about how well BFST functions for African American youth in general.

Structural Ecosystems Therapy (SET) Structural Ecosystems Therapy (SET; Robbins, Schwartz, & Szapocznik, 2003) is based on Brief Strategic Family Therapy (Szapocznik et al., 2003) and integrates ecological factors informed by Bronfenbrenner's ecological theory (1986), research on risk and protective factors for substance use (Hawkins, Catalano, & Miller, 1992), and multisystemic therapy (Henggeler & Borduin, 1990). Accordingly, the underlying principle of SET is that factors within and outside of the family contribute to and maintain adolescent behavior problems such as substance abuse. Thus, SET targets patterns of interaction in family, and between the family and other systems, in order to develop adaptive interaction patterns, increase prosocial behaviors, and reduce problem behaviors. SET was developed for both Hispanic and African American families.

Using a randomized controlled design, SET was compared with a family process-only intervention in a sample of 190 African American ($N=77$; 40.5 %) and Hispanic ($N=113$; 59.4 %) adolescents diagnosed with substance abuse or dependence (Robbins et al., 2008). Participants were randomly assigned to SET or one of two control conditions: a family process intervention or referral to an outside agency for drug treatment. For African American adolescents, SET was more efficacious than the family process and community services intervention in improving family functioning at the end of treatment and over the 12-month follow-up, suggesting benefits of the ecological components over a purely family-based intervention. While SET was associated with decreases in drug use for Hispanic adolescents in this study, however, it did not cause decreases in drug use for African American adolescents. The success of SET in engaging African American adolescents and improving family functioning but not drug use suggests differences in the relative influence or type of influence of various ecological systems (e.g., family, peer, school, juvenile justice) for African American and Hispanic youth.

Behavioral Techniques

Behavior therapy approaches are based on operant and classical conditioning, with a common premise that substance use behaviors are learned. Common techniques include functional analysis of substance use behavior, skills training, and relapse prevention, with operant programs using reinforcement and punishment as strategies to bring about change in substance use behavior. Many multicomponent programs integrate behavioral techniques; however, it often is not possible to evaluate the effects of specific behavioral strategies apart from other treatment strategies.

The Adolescent-Community Reinforcement Approach (A-CRA) The Adolescent-Community Reinforcement Approach (A-CRA; Godley et al., 2001) is adapted from the Community Reinforcement Approach (Hunt & Azrin, 1973), a behavioral intervention designed to increase reinforcement in domains salient to adults, including social, familial, school, vocational, and recreational. A-CRA is designed for youth ages 12–22 with diagnosed substance use disorders. A primary aim of this intervention is to identify environmental contingencies that have supported adolescent substance use behaviors and replace them with prosocial behaviors and activities that will facilitate recovery. Moreover, this operant approach aims to shift environmental contingencies so that sober behavior is more rewarding than using substances. Specific goals of the adolescent sessions are (1) abstention from substance using behavior; (2) promotion of prosocial activities and positive peer relationships; and (3) improving family interactions. Sessions focus on engaging caregivers in treatment for the adolescent and training caregivers on positive parenting practices. As manualized in the Cannabis Youth Treatment study (Dennis et al., 2004), A-CRA consisted of 10 adolescent sessions, 2 caregiver sessions, and 2 sessions with adolescents and caregivers together. It is recommended that youth participate weekly over a 90-day period.

Godley, Hedges, and Hunter (2011) examined racial and gender differences in treatment initiation, engagement, dose, satisfaction, and outcomes in a diverse sample of 2141 adolescents from across the USA who received A-CRA. There were no differences in treatment initiation, engagement, or retention by race or gender. Treatment satisfaction was higher for African American adolescents than Caucasian adolescents, and for male adolescents compared to female adolescents. All racial groups showed significant increases in days abstinent at 6-month follow-up; there were no race differences in abstinence at 6-month follow-up. It should be noted, however, that the effects of A-CRA may not persist into early adulthood. For example, Smith, Godley, Godley, and Dennis (2011) found that while both adolescents and emerging adults (aged 18–25) decreased substance use at follow-up, emerging adults were less likely to stop using altogether, going into remission. They also had more days of alcohol use than adolescents at follow-up. While the sample was not exclusively African American (21.5 %), findings highlight the importance of attention to developmental changes across adolescence.

Refusal Skills Training (RST) Treatment outcome research evaluating refusal skills training (RST), a training in which individuals practice or role play turning down offers to accept or use substances, with African American adults indicates positive outcomes such as fewer heavy drinking days (Witkiewitz, Villarroel, Hartzler, & Donovan, 2011). However, parallel examinations of RST with adolescent samples have not replicated this finding. Smith, Tabb, Fisher, and Cleeland (2014) examined the effects of RST among adolescent samples receiving the Adolescent-Community Reinforcement Approach (A-CRA; Godley et al., 2001) and compared outcomes of substance use frequency and abstinence/early remission for African American adolescents who received A-CRA with RST ($N=214$), African American adolescents who received A-CRA only ($N=212$), and White adolescents who received A-CRA with RST ($N=214$). Using propensity score matching, they found that African American youth receiving RST with the behavioral intervention did not experience better outcomes than African American youth who received the behavioral intervention only, or White youth receiving A-CRA plus RST. The authors speculated that one reason why these results differ from findings with adults is that adolescents receive fewer offers to take drugs than adults. This may vary by context, and should be explored in future research.

Contingency Management (CM) Contingency management (CM) interventions rely on contingencies of reinforcement or punishment to increase or decrease substance related behaviors. An underlying principle of this operant technique is that substance use behavior is maintained not only by pharmacological aspects of the substance, but also by social and environmental reinforcement. Thus, a goal of CM interventions is to reduce reinforcement from substance use, and increase reinforcement from more adaptive activities. Successful implementation of CM techniques requires careful consideration of the schedule of consequences, the type and magnitude of consequences, the target behavior, and how the target behavior will be monitored. In general, better outcomes are achieved with a shorter delay between the target behavior and consequence; higher frequency of consequences, at least initially; and greater magnitude of reinforcing consequences (e.g., incentives), with the type of reinforcement tailored to the individual's interests and needs. It has been proposed that adding CM techniques to existing interventions can enhance treatment effects (Stanger & Budney, 2010), and evidence supports this contention as CM techniques (e.g., incentives) often are integrated into multicomponent interventions that have demonstrated improvements in substance use behaviors (e.g., MST, Henggeler et al., 2002; MDFT, Liddle et al., 2001). However, it is difficult to evaluate the effectiveness of CM as a component of a comprehensive program. One option is to compare comprehensive programs differing only in CM.

Stanger, Budney, Kamon, and Thostensen (2009) tested the efficacy of a contingency management (CM) intervention in a sample of 69 adolescents (6 % African American) aged 14–18 who reported using marijuana in the prior 30 days or had a THC-positive urine test. Participants were randomized to one of two conditions, each including the MET/CBT12 curriculum (see below) adapted for individual therapy. The experimental condition was MET/CBT with an abstinence-based incentive program and weekly parent training sessions, while the comparison condition was MET/CBT with an attendance-based incentive program and weekly psychoeducational sessions for parents. Consistent with the adult treatment literature, adolescents in the experimental condition had greater abstinence from marijuana during treatment, and significantly more youth in the experimental condition were abstinent for more than 10 weeks. The authors note the lack of ethnic diversity as a limitation, and treatment effects for

African American youth were not examined. A number of studies have shown the feasibility and acceptability of CMs approaches with adolescents (e.g., Kamon, Budney, & Stanger, 2005; Reynolds, Dallery, Shroff, Patak, & Leraas, 2008), and these have been implemented at low cost (e.g., community adolescent treatment center, Lott & Jencius, 2009); however, it is not yet clear how these methods fare with African American youth apart from their implementation in multicomponent interventions that have included diverse samples and/or examined effects with African American adolescents.

Cognitive Behavioral Interventions

Cognitive behavioral methods rely heavily on operant, classical, and social learning models, according to which substance use behavior is learned and maintained as a result of aspects of the environmental context. The types of cognitive behavioral interventions derived from these behavioral models vary widely in terms of the type and degree of behavioral interventions included. However, Waldron and Kaminer (2004) noted that common across many cognitive behavioral interventions are awareness and avoidance of stimuli to use substances, altering contingencies that support substance use, coping skills and problem solving training, and mood regulation. Results of randomized trials in which cognitive behavioral therapy is included as a treatment condition have yielded promising results in adolescent samples, although samples typically do not allow for analysis of differential treatment outcomes for African American adolescents. However, findings regarding the efficacy of cognitive behavioral interventions are mixed, likely due, in part, to differences in cognitive behavioral methods used in intervention trials. For example, in Liddle and colleagues' (2004, 2009) comparisons of group cognitive behavioral therapy and MDFT in a sample of clinically referred adolescents, MDFT produced stronger effects than the CBT group, but Dennis et al. (2004) did not find that MDFT was superior to the Motivational Enhancement Therapy/Cognitive Behavioral Therapy (MET/CBT) interventions in the Cannabis Youth Treatment study (described below).

Brief Interventions

Brief interventions share common elements including an assessment of target behavior and its consequences, an emphasis on the individual's responsibility for bringing about change, and provision of advice and options for behavior change. Typically brief interventions are 1–5 sessions in length. Given their brevity, these types of interventions can be delivered in multiple types of settings (Miller & Sanchez, 1994; Tevyaw & Monti, 2004).

Motivational Interviewing (MI) Motivational interviewing (MI; Miller & Rollnick, 2002) is a client-centered counseling style using cognitive behavioral techniques to bring about behavior change. A goal of motivational interviewing is supporting individuals in their ambivalence to change behavior, and increasing their readiness or commitment to change. Jensen et al. (2011) conducted a meta-analysis of MI interventions targeting adolescent substance use. Of the 21 studies included in their review, seventeen reported racial demographics for participants; across these seventeen studies, 14.5 % were African American. MI interventions yielded small but significant effect sizes for reductions in tobacco, alcohol, marijuana, and illicit drug use. Effect sizes for MI targeting tobacco use were larger than effect sizes for MI targeting alcohol and other drug use, but not significantly.

Motivational Enhancement Therapy (MET) Motivational Enhancement Therapy (MET; Miller & Rollnick, 2002) combines motivational interviewing with personalized feedback on substance use to motivate change in substance use behavior. MET uses a harm reduction approach to target problematic substance use behaviors where behaviors are initially reduced versus abstained. It has been suggested that such an approach may have benefits over abstinence-based programs which are well suited to severe substance use disorders but less so for individuals with less extensive use or mild or moderate substance use disorders, such as adolescents (Tevyaw & Monti, 2004). While MET reinforces behavior changes that decrease risk, harm reduction approaches for adolescent substance use can be controversial given social expectations and laws regarding underage substance use (e.g., underage drinking). Therefore, it is important for MET interventions to be delivered in the context of clear discussions about abstinence expectations of important socialization and authority agents for the adolescent (e.g., parents, school) which may expect zero tolerance and abstinence versus harm reduction for substance use.

The Teen Marijuana Check-Up (TMCU; Berghuis, Swift, Roffman, Stephens, & Copeland, 2006) is a MET intervention adapted from the Drinker's Check-Up (Miller, Sovereign, & Krege, 1988) designed to address high schools students' concerns about marijuana use. The TMCU targets adolescents who are interested in evaluating their marijuana use and contemplating its positive and negative consequences. It is ideal for adolescents at an early stage of readiness for behavior change (contemplation) because these youth do not self-identify as having problems with marijuana. The intervention is not labeled as treatment, and it may be easier for youth to accept behavior change. The TMCU can be considered secondary prevention or early intervention, with adolescents ranging from no concerns about their marijuana use, to being ambivalent or dissatisfied with their marijuana use. In a randomized trial, the TMCU was implemented in schools and compared with a delayed control condition in a sample of 97 (19 % African American) non-treatment seeking adolescents who used marijuana (Walker, Roffman, Stephens, Wakana, & Berghuis, 2006). After completing a computerized assessment, the self-referred youth participated in two feedback sessions that covered (1) rapport building, (2) evaluating discrepancies between their marijuana use and their values and goals, and (3) considering the positive and negative outcomes of reducing or abstaining from marijuana use. Both treatment groups reported reduced marijuana use at 3-month follow-up, and there were no differences between the groups. Because there was no effect of ethnicity and marijuana use and ethnicity did not interact with treatment condition, ethnic differences in treatment outcome were not examined. The findings for the TMCU are promising for school-based interventions involving African American youth who are in the early stages of use of marijuana and tobacco and other smoke products.

The Cannabis Youth Treatment (CYT) study compared the effectiveness of 5 short-term outpatient therapies for adolescent cannabis users (Dennis et al., 2004). Participants in the CYT were primarily male (83 %) and a majority were involved in the juvenile justice system (62 %). Thirty percent of the sample was African American. Trial 1 of the CYT compared three interventions based on MET: (1) a 5-session MET plus CBT intervention, consisting of two individual MET sessions and three group CBT sessions (MET/CBT-5; Sampl & Kadden, 2001), (2) a 12-session MET plus CBT intervention (MET/CBT-12), and (3) the Family Support Network (FSN). MET/CBT-5 includes two sessions of MET followed by 3 sessions of CBT and was designed so that the intervention could be completed in the 6-week median treatment length of stay common in many outpatient settings. MET/CBT-12 adds 7 group CBT sessions to the MET/CBT-5 intervention. The FSN includes MET/CBT-12 plus six parent education groups, four therapeutic home visits, referral to self-help groups, and case management. Trial 2 of the CYT compared the MET/CBT-5 to the Adolescent-Community Reinforcement Approach (described above) and Multidimensional Family Therapy.

Results from the CYT study indicated that youth in the MET/CBT-5 intervention had comparable numbers of days abstinent to those in the MET/CBT-12, Family Support Network, Adolescent Community Reinforcement Approach, or Multidimensional Family Therapy, each of which is more intensive than MET/CBT-5. Moreover, the MET/CBT-5 intervention was the most cost effective among the 5 interventions examined. It is important to note, however, that the CYT did not have a control group or comparison group.

Walker et al. (2011) evaluated the effects of Motivational Enhancement Therapy (MET) with a randomized study of three treatment conditions: Motivational Enhancement Therapy (MET), Educational Feedback Control (EFC), or Delayed Feedback Control (DFC) in a sample of 310 adolescents (mean age 16; 10 % African American) who self-referred for an intervention for cannabis users. Those in the delayed feedback control group served as the initial control group for the study, but after a 3-month delay were able to receive their choice of intervention for their own benefit without any additional data collected further for the study. Participants in the MET and educational feedback condition were assessed at baseline, 3-month, and 12-month follow-up. The MET and educational control conditions each consisted of two sessions lasting no longer than 1 h. Following treatment, an optional 4 individual sessions of cognitive behavioral therapy was offered to all MET and educational feedback condition participants.

At the 3-month follow-up, participants in the MET and educational control reported significantly fewer days of cannabis use than youth in the delayed feedback control group. Participants in the MET condition reported fewer cannabis-related problems and endorsed fewer cannabis abuse and dependence criteria than participants in the delayed feedback control group. While the MET group performed better on these outcome measures than the educational control group, the differences were not significant. The cannabis reductions observed at 3 months persisted at the 12-month follow-up. After controlling for baseline use, attending the optional CBT sessions was associated with reduced cannabis use at 3 and 12 months. Results highlight the utility of MET for adolescents but also suggest that MET may provide only a small increment over an educational intervention. Of note, ethnicity was not examined in this study.

Another study utilized MET to treat substance use and comorbid mental health. Becker et al. (2012) examined MET/CBT-5 (i.e., two sessions of MET combined with three sessions of group CBT; Sampl & Kadden, 2001) in a large ($N=4502$) national sample of ethnically diverse (59 % White; 29 % Latino; 12 % African American) and predominantly male (71 %) adolescents aged 13–18 (mean age 15.6) in the Effective Adolescent Treatment project, a multi-site project to disseminate MET/CBT. Becker et al. (2012) found that African American adolescents had less frequent use, less internalizing and externalizing comorbidity, and fewer substance use related problems than White or Latino adolescents at baseline. Seventy-one percent of youth entering the trial completed the 3-month assessment. Females and younger adolescents were more likely to complete the 3-month assessment, and African American youth were less likely to complete the post-treatment assessment than White adolescents. African American youth did not differ from Latino youth in number of sessions completed, but completed significantly fewer sessions than White youth. At the 3-month follow-up, African American youth had lower substance use frequency scores than Latino youth, and significantly fewer substance use related problems than White youth; however, these differences were no longer significant after controlling for baseline and comorbidity.

Thus, overall, findings suggest that the MET/CBT-5 effectiveness did not vary for African American, Latino, and White youth who completed the intervention and 3-month follow-up assessment. It is important to note, however, that treatment outcome only was examined for the adolescents who completed the 3-month follow-up assessment, a subset of the treatment completers. In addition, sex differences within ethnicity were not examined; thus, it is not clear whether female adolescents' greater baseline substance use frequency and problems, and internalizing and externalizing comorbidity held for African American youth. Another concern is that there was no control or comparison condition; therefore, it is possible that outcomes may be due to factors other than the intervention.

Guided Self-Change (GSC) Guided self-change (GSC; Sobell & Sobell, 2005) is a skills-oriented and motivational intervention developed to address substance use problems; it combines brief motivational interventions (BMIs), and cognitive behavioral therapies (CBTs). In addition to incorporating principles of behavior change and motivational engagement, this brief intervention integrates participants' individual treatment goals and personal experiences. It is proposed that this individualization and ideographic feature of GSC makes it especially useful with diverse groups (Palmer, 2000). GSC already has been translated for clinical Spanish speaking clients with promising early results in small studies (Martínez Martínez, Salazar Garza, Pedroza Cabrera, Ruiz Torres, & Ayala Velázquez, 2008; Wagner, Hospital, Graziano, Morris, & Gil, 2014).

Alcohol Treatment Targeting Adolescents in Need (ATTAIN) is a version of GSC modified to be developmentally appropriate for adolescents, and includes the problem behaviors that typically co-occur with adolescent substance use problems (e.g., violence involvement). Gil, Wagner, and Tubman (2004) conducted a randomized clinical trial to evaluate the efficacy of guided self-change with African American and Hispanic juvenile offenders between 14 and 19 years of age. Participants were randomly assigned to one of four conditions: individual guided self-change, family involved guided self-change, a choice of individual or family, or a waitlist control. In an attempt to overcome possible treatment barriers related to accessibility of services, clinics were established in participants' neighborhoods. Given the importance of extended family and caregivers for African American and Latino youth, the program used "flexible definitions of family" so that extended and/or non-biological family members would not be excluded from the program (Gil et al., 2004).

Unlike many other substance use interventions for youth, ATTAIN focused on understanding the effects of the intervention across cultural groups. This focus required attention to both culture-specific factors, such as the flexibility to accept the extended family, and more general factors involved in the etiology of substance use. Program developers considered cultural factors as associated with amenability to treatment. Thus, the program was designed based on the assumption that participants in the active intervention condition would not only show greater reductions in their substance use involvement compared to adolescents in the waitlist control condition, but that levels of cultural mistrust and perceived discrimination would also be amenable to treatment for African American and Hispanic youth. Acculturation was an important cultural factor among Hispanics in the treatment study, although there have been mixed findings in the research literature.

Acculturation findings from epidemiological surveys suggest potential differences with US-born Hispanics more likely than and foreign-born Hispanics to engage in substance use related to acculturation and acculturative stress (e.g., Blanco et al., 2013). Treatment studies exploring acculturative factors are minimal but the acculturation process within families, including parent–child or family–child acculturation differences, can cause conflict and affect treatment processes (Santisteban et al., 2003; Unger, Ritt-Olson, Wagner, Soto, & Baezconde-Garbanati, 2009).

Gil et al. (2004) examined ATTAIN in 213 juvenile offenders (40 African American, 128 US-born Hispanic, and 45 foreign-born Hispanics) referred to the program for substance use treatment. For African American juvenile offenders, there were significant reductions in alcohol (percentage of alcohol use days decreased from 66.7 % to 30 % use in the past 30 days) and marijuana use post-intervention (approximately 10.9 weeks after intervention). In addition, ethnic orientation and ethnic pride emerged as protective factors for alcohol and drug use for African Americans. These factors were also related to African American adolescents' acknowledgement of substance use problems and need for substance use treatment. Although not statistically significant, the authors found that the magnitude of the correlations between ethnic mistrust and perceived discrimination and substance use variables approached significance.

A recent school-based, randomized clinical trial of GSC was conducted with minority adolescents in diverse Miami-Dade County, the fourth largest school district in the nation, to address alcohol, drug use, and interpersonal aggression

(Wagner et al., 2014). The study recruited 514 adolescents of whom 80 % were ethnic minority including 57 % Hispanic and 23 % African American. There were 6 % non-Hispanic White and 14 % other adolescents who participated in the study. Limited information on nativity revealed that 21 % of the total sample and 41 % of the Hispanic sample were foreign born. GSC showed comparable treatment effects for adolescent males and females as well as Hispanics and African American adolescents. Participants demonstrated significantly fewer alcohol use days, drug use days, and aggressive behavior incidents than participants who received standard care. The treatment differences between GSC and standard care continued for 3 months post-treatment and appeared most salient for early intervention, but extinguished 6 months post-treatment. The authors concluded that even with their attention to developmental and cultural factors in the intervention study they did not have enough information to understand therapeutic mechanisms of change between subgroups of adolescents which account for lasting and meaningful change (Wagner et al., 2014).

Recommendations for Clinical Care

The implementation of evidence-based practices in clinical settings has long been a challenge, including the adoption of empirically supported interventions in clinical practice. With regard to substance use interventions, several reasons have been offered including the difference in training and treatment orientations between substance abuse counselors and researchers, the need for training and supervision, and the necessity of implementing quality control mechanisms to ensure treatment fidelity. Moreover, the extremely limited research base around African American adolescents' substance abuse treatment outcomes is plagued by conceptual and methodological challenges. As scholars address gaps in this area, treatment providers must proceed with best practices given the available empirical information. Considerations for substance use treatment include being evidence informed, developmentally appropriate, and culturally relevant for African American adolescents based on the existing clinical research.

Access to and Use of Substance Use Treatment Services

A substantial literature has documented differential access to healthcare related to socioeconomic status, geographic region, race/ethnicity, and disparities in the quality of care available and provided across these demographic characteristics. Substance use treatment disparities continue to exist for adolescents because of the limited available evidence of efficacious treatments. Quality of care is directly linked to treatment efficacy as it can be argued that a high quality of care requires the use of the most efficacious treatment for a particular client. Unfortunately, there are few treatments with proven efficacy for African American adolescents due in part to issues of methodology and/or limited specificity of culturally relevant information. Moreover, providers vary in whether or not efficacious treatments are known, available, and offered to African American youth. To maximize optimal treatment outcomes, providers should integrate principles common to successful interventions for African American youth such as multiple system approaches. If limited resources constrain provider ability to engage multiple systems, addressing these systems over the course of intervention with adolescents is important.

Referral Sources Adolescents typically do not self-refer for treatment and the means through which adolescents enter substance use treatment has implications for their treatment outcomes given associations between referral source and motivation to enter and complete treatment (Yeterian, Greene, Bergman, & Kelly, 2013). Research reviews have suggested that more than half of youth engaged in substance abuse treatment are referred from the juvenile justice system (e.g., Chassin, 2008), and African American youth are disproportionately represented in the juvenile justice system. Consequently, the juvenile justice system is a primary referral source for African American adolescents to receive substance use treatment. This can present serious challenges for clinical care. Many juvenile justice involved youth have mental health concerns that co-occur with substance use (Abram, Teplin, McClelland, & Dulcan, 2003) and appropriate interventions for comorbid youth may differ from youth with substance use problems alone.

Beyond psychiatric comorbidity, factors that contribute to and maintain substance use among juvenile justice involved youth may differ from factors relevant for youth not in the juvenile justice system. In addition, there are ethical issues associated with the legal coercion of adolescents into substance use treatment as a condition of sentencing (Brody & Waldron, 2000). Also, motivation to participate in treatment may vary widely among youth mandated to attend, and low motivation can make treatment progress difficult. This difficulty is compounded by the low participation in substance use treatment among youth in detention (Young, Dembo, & Henderson, 2007). Few youth actually receive the recommended treatment and those accessing the treatment may not receive adequate services. Upon re-entry into the community, risk for relapse may be high given the amount and quality of care received; relapse or continued drug use may increase the likelihood that youth remain involved in the juvenile justice system (for a review see Chassin, 2008). Providers should remain cognizant of the role of referral source in all phases of intervention, particularly the implications for adolescents' motivation to change substance use behaviors.

Treatment Initiation and Retention Referral source has important consequences for which adolescents begin and remain in treatment for substance use. Treatment retention has implications for intervention dose, and providers' ability to achieve goals for substance use reduction or cessation. Campbell, Weisner, and Sterling (2006) compared rates of treatment initiation and treatment retention for African American adolescents and adolescents of other ethnicities entering chemical dependency treatment through a private managed care program. While African American youth did not differ on treatment initiation following intake, African American adolescents receiving care through the managed health care program were less likely than White youth to remain in treatment. Differences in treatment retention may reflect differences in substance use frequency or severity. The African American youth in this study reported less severity of substance use problems, a finding consistent with other research studies. Higher severity of psychiatric problems also was associated with shorter treatment retention, highlighting the importance of assessing comorbidity for understanding treatment outcome. Interestingly, both higher motivation and higher family conflict were associated with longer treatment retention. While the findings for motivation seems intuitive, the finding for higher family conflict and length of treatment retention suggest that addressing family concerns may be particularly important for African American adolescents in substance use treatment.

Match Between Therapist and Client Wintersteen, Mensinger, and Diamond (2005) examined gender and racial match between substance abusing adolescents and therapists in a randomized controlled trial. Dyads who were the same gender reported higher alliances and greater likelihood to complete treatment. Racial match was associated with greater retention but did not predict therapeutic alliance. These findings suggest that racial match may not be sufficient to foster therapeutic alliance. Other research has found that matching therapist and client ethnicity were associated with greater decreases in adolescent substance use behavior for ethnic minority clients but such a match was not associated with treatment outcome for White adolescents (e.g., Flicker, Waldron, Turner, Brody, & Hops, 2008). Together, the mixed findings remind us that it is overly simplistic to assume that a match on racial or ethnic characteristics will ensure a successful treatment outcome. Adolescent drug abuse treatment for African Americans may include parents, family members, and extended family members of diverse and/or mixed racial/ethnic backgrounds. The issue of match is one that may be an appropriate topic for discussion in therapy. Providers should consider how match may influence treatment progress and consider cultural sensitivity for all of the individuals involved in the treatment process.

Treatment Focus and Content It is increasingly recognized that clients' cultural context is important for many health outcomes, including decisions to engage and participate in treatment. Jackson-Gilfort, Liddle, Tejeda, and Dakof (2001) found that integration and discussion of content related to race and culture, particularly issues focused on anger, rage, alienation, respect, and the transition from boyhood to manhood was associated with better engagement in therapy for African American male adolescents diagnosed with substance use and conduct disorder. Liddle, Jackson-Gilfort, and Marvel (2006) propose that a multi-system approach that includes culturally specific components will improve African American adolescents' engagement, experience in therapy, and therapeutic outcomes, and the demonstrated success of MDFT and MST in retaining ethnically diverse adolescent clients compared to other approaches supports this proposition.

Substance Use Treatment Completion, Outcomes, and Relapse It is generally accepted that treatment completion will be associated with better substance use outcomes and research supports this view (e.g., Winters, Stinchfield, Opland, Weller, & Latimer, 2000). Rounds-Bryant and Stabb (2001) compared treatment outcomes in the NIDA funded national outcome evaluation study of publicly funded treatment in the 1990s using The Drug Abuse Treatment Outcome Studies for Adolescents (DATOS-A) for 1094 patients consisting of 213 African Americans, 108 Hispanics, and 773 White adolescents admitted to 23 drug abuse treatment programs between 1993 and 1995 in four cities, Chicago, Minneapolis, Pittsburgh, and Portland. The groups were similar at baseline, and showed similar reductions in substance use post-treatment (12 months after discharge). White adolescents were more likely to remain engaged in criminal activity in the year following treatment than were African American adolescents, and to lesser extent Hispanic adolescents. This study did not include randomization and had a small sample of racial ethnic minorities that received care predominantly through the justice system.

More recently, Saloner et al. (2014) examined data from the 2007 Treatment Episode Dataset (TED) using a sample of youth ages 12–17 that successfully completed or were discharged from publicly funded outpatient or residential treatment for alcohol or marijuana. Relative to White youth, Black youth were significantly less likely to complete treatment for alcohol and marijuana. Treatment was more frequently terminated by the facility or terminated due to incarceration for Black youth compared to Hispanic youth who more frequently terminated treatment against medical advice. Of note, Black youth receiving treatment for marijuana were more likely to have been referred to treatment through the criminal justice system, suggesting court mandated treatment which may have influenced treatment completion. In addition, Black youth in this study, on average, resided in areas with a smaller number of adolescent-serving treatment providers relative to the population in metropolitan areas (Saloner et al., 2014). Results found that higher rates of acceptance of public health insurance (i.e., Medicaid) by health providers in metropolitan areas were related to higher overall treatment completion rates and lower disparities especially for Black youth. Providers not specifically trained to work with diverse youths and adolescent substance use may be less skilled to engage and retain these clients given the unique characteristics of the adolescent period compared to adulthood (Deas, Riggs, Langenbucher, Goldman, & Brown, 2000).

If there are higher rates of public health acceptance, providers may have more stable funding and offer more comprehensive treatments for drug abuse and for adolescent drug abuse. With the increase of affordable health insurance from the Affordable Care Act (ACA), there may be opportunities to improve provider coverage and substance use treatment for diverse adolescents. The availability of electronic health record data may also allow access to treatment data that varies across the type of initial referral to treatment (i.e., self-referred versus court mandated), type of health insurance (i.e., public versus private), and the ability to understand relapse and longer term outcomes for health consequences. Relapse prevention among adolescents is difficult to study given the dearth of data on adolescent treatment and post-treatment. Among adult populations, African American males have been found to have more economic difficulties entering treatment, and to need more economic resources following treatment (Walton, Blow, & Booth, 2001). Post-treatment factors such as reducing drug cravings, improving educational attainment, increasing healthy lifestyle and leisure activities, increasing self-control, and building social relationships with non-drug users may be associated with preventing relapse (e.g. Catalano et al., 1990).

It is critical to examine system level, community, cultural, family, and individual factors that may interfere with treatment completion and affect treatment outcomes and relapse for African American adolescents. Substance using African American adolescents who evidence overrepresentation in justice systems and negative health consequences from drug use warrant a specific focus on their treatment needs. As Hadland and Baer (2014, p. 628) concluded in their editorial response to Saloner's review of disparities of substance use treatment for African Americans and Hispanics, the findings "underscore the criticality of ensuring access to high-quality addiction treatment services for all adolescents—regardless of race, ethnicity, or location."

Future Research

To reduce disparities and improve African American substance use treatment, there is an immediate need for research that examines the degree to which and how race, ethnicity, and culture influence treatment outcomes for African American adolescents. At a minimum, such research requires engaging these youth and their families in research programs to evaluate existing intervention programs and develop or tailor programs if needed. Samples that are exclusively African American that reflect heterogeneity of the population are sorely needed. Among samples diverse in race/ethnicity, it is important to recruit and engage African American participants in sufficient numbers that it is possible to examine variation in responses to treatment across development. Mental health treatments that are culturally adapted across multiple components and specific to the clients' race are proposed as more effective for racial/ethnic minorities (Bernal, Bonilla, & Bellido, 1995; Smith, Rodríguez, & Bernal, 2011).

Empirical studies of adolescent substance abuse treatment are lacking, and even fewer studies have considered culturally relevant factors, tested the effectiveness of cultural adaptations, or investigated relapse prevention. Most adolescent treatment studies do not have methodology to examine heterogeneity within African American adolescents referred for and/or engaged in substance use treatment and consider their developmental, gender, and cultural contexts. Socioeconomic status, geographic region, referral source, age, and gender are among the factors that may be relevant for differentiating African American youth and their treatment success, and are essential for inclusion in future study design.

The developmental course from adolescence and the transition into young adulthood may be particularly important for African American substance use treatment. Data analyses of the National Longitudinal Study of Adolescent Health by Chen and Jacobson (2012) found that African American substance use peaked at a later age compared to other racial/ethnic groups. Even after the age of 30, African Americans showed relatively higher levels of smoking and marijuana use, even though they reported lower levels of substance use during adolescence and received less treatment. The authors found that the long-term consequences of substance use appeared more severe for African Americans, even though the levels of use were reported lower in adolescence. African American young adults may need culturally relevant treatments, particularly for smoking and marijuana. Given the different pathways by race/ethnicity, gender, and type of substance, there may be critical developmental time points for prevention programs and effective treatments, such as adolescence versus young adulthood. These developmental distinctions have been sorely lacking in substance use treatment trials. Adolescent substance treatment is an emerging area and distinctions are not typically used in treatment research to examine developmental subgroups such as early adolescence (12–14), late adolescence (15–17), transition to adulthood (18–21), and young adulthood (21–30).

Another area in need of research is an understanding of what common intervention components or mechanisms of change are relevant across samples. It is possible to design interventions that can be relevant and effective for more than one cultural group (e.g., Gil et al., 2004). An updated NIH Stage Model of intervention development posits that a behavioral intervention should adapt until it reaches its highest level of potency and is implementable with the maximum number of people in the population (Onken, Carroll, Shoham, Cuthbert, & Riddle, 2014). The existing and rapidly increasing diversity of youth in the US population is underserved without proven substance use treatments. Given the review of the behavioral interventions in this chapter, future research is tasked to meet a high standard of evidence for adolescent substance use treatment for African Americans. It is important to be cognizant of unique historical and contemporary issues that have implications for the health and well-being of African American youth as well as any similarities with other racial/ethnic youth, and contemporary adolescent experiences in general. There may be similar and/or unique mechanisms of change that can advance substance use treatments for African Americans through efficacy (Stage III), effectiveness (Stage IV), and towards dissemination and implementation (Stage V).

Even less is known about interventions using pharmacotherapies alone and in combination with behavioral interventions for adolescent substance use (Winters, Tanner-Smith, Bresani, & Meyers, 2014). There are no approved medications for adolescent substance use. Whether pharmacotherapies are effective to treat co-occurring mental disorders and cravings or enhance behavioral treatment effects for adolescents is relatively unknown. The efficacy of prescriptive treatments for addiction among African Americans, and during adolescence and puberty is understudied. Limited research suggests disparities in provider's prescribing practices and lower rates of treatment with psychotropic medication for African American school age youths (Zito, Safer, Dosreis, & Riddle, 1998). Pharmacotherapy or combined treatment for African American adolescents will need to consider cultural factors that might impact use and compliance. Given the promise of pharmacological and combined treatments for some drugs among adults, future research studies to understand their efficacy among diverse adolescents should be considered.

Evaluating existing program effects with African American adolescents and designing interventions to be optimally effective for these youth, future research and clinical efforts should maintain a focus on prevention and early intervention. The Screening Brief Intervention and Referral to Treatment (SBIRT) model can be an important tool for identifying youth at risk of substance use problems, and providing early intervention for youth with or at risk for substance abuse and dependence (Mitchell, Gryczynski, O'Grady, & Schwartz, 2013). The screening identifies risky substance use ranging from minor to serious and informs the treatment goal (reduce or abstain). Brief interventions typically entail counseling lasting 1–2 sessions, and referrals to treatment are made for individuals requiring more intensive services. Importantly, SBIRTs have the capacity to screen large numbers of individuals quickly, and can be implemented easily in settings frequented by adolescents such as schools and medical settings (e.g., pediatric care clinics, primary care, emergency rooms). Moreover, SBIRTs have the potential to improve adolescent substance use treatment outcomes by facilitating treatment initiation prior to abuse and dependence diagnoses, and the related problems. Proponents of SBIRTs note that even when use does not meet diagnostic criteria for a substance use disorder, serious health consequences can result.

To determine the utility of SBIRTs for African American adolescents, it will be important to evaluate each component of SBIRTs (i.e., Screening, Brief Intervention, and Referral to Treatment) for these youth. For example, this would include examining the validity of screening tools, the efficacy of the brief interventions, and the effectiveness of treatment referrals for African American youth. Cutting-edge brief interventions in primary care have integrated technology with computer assistance for therapists and virtual therapists for use with diverse adolescents including African American adolescent participants (Walton et al., 2010, 2014). Future research should evaluate whether brief interventions for substance use provided in primary care, emergency departments, schools, and other community settings meet criteria for effectiveness among African American youth. Preventive interventions are essential to a strategic approach to substance use disorders along with early interventions.

Alegria et al. (2011) describe numerous multilevel factors contributing to disparities in substance use treatment for ethnic minority youth including health care policies, provider characteristics, patient characteristics, and aspects of the family, peer, and community contexts. These factors may have relevance for all adolescents to a certain degree, but associations between these multilevel risk and protective factors for African American adolescents' substance use outcomes should be carefully evaluated for relevance to stages of intervention development. Unfortunately, the cultural strengths of family and culture have been relatively understudied as protective factors that could benefit future substance use treatments for African American youth. The negative health consequences and societal costs of substance use for African American adolescents require improved treatments. While research continues to advance, the existing adolescent substance use treatments using principles of behavioral management, engaging the family, and considering culture show promise for African American adolescents.

Conclusion

Substance use treatments for adolescents have been relatively understudied compared to adults. Promising behavioral treatments have demonstrated efficacy with inclusion of African American youth participating in clinical trials. However, African Americans suffer serious disproportionate negative consequences from substance use including incarceration and negative health consequences including HIV/AIDS (NIDA, 2014). The patterns of substance use and disparities in substance use treatment for African Americans must be considered within the context of system level factors such as availability of health service providers, insurance coverage, and community resources (Alegria et al., 2011), and individual factors including sociocultural experiences, co-occurring mental health problems, developmental stage, and gender.

Substance use treatment studies need improved methodology representing the heterogeneity of the African Americans in the US from diverse settings and with private and public health medical insurance in the era of the Affordable Care Act. Researchers and treatment providers are poised to strengthen substance use treatments using evidenced-based criteria applying the NIH Stage Model (Onken et al., 2014) for reinvigorated intervention development for treatments that are culturally specific, optimally efficacious, and implemented with fidelity for African American adolescents until they reach the highest level of potency to impact long-term societal and health outcomes.

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Posttraumatic Stress Disorder

14

Broderick A. Sawyer, Monnica T. Williams,
Ryan C.T. DeLapp, and Darlene M. Davis

Introduction

Childhood and adolescent trauma can put youth at risk for long-term impairment across several domains of life, including poor educational performance, anxiety, or behavioral problems as late as 2 years after initial trauma exposure (Abramson, Redlener, Stehling-Ariza, & Fuller, 2007). Prevalence rates of childhood and adolescent trauma can vary by the sample investigated, as well as by gender. In an epidemiological study, Kilpatrick and Saunders (1997) found that in adolescents aged 12–17 (92.9 % European American), rates of posttraumatic stress disorder (PTSD) were 3.7 % for males and 6.3 % for females, across several types of trauma exposure. Prevalence of trauma exposure within this sample included witnessing violence (39.4 %), experiencing sexual assault (8.1 %), and physical assault (17.4 %). Similarly, in the National Comorbidity Survey, Kessler, Sonnega, Bromet, Hughes, and Nelson (1995) found higher PTSD prevalence among adolescents and young adults, with females (10.3 %) having a higher prevalence in comparison to males (2.8 %) in the sample. When considering PTSD prevalence in relation to disasters, Hoven and colleagues (2005) found that after the terrorist attacks on the World Trade Center, in a sample of 8236 children (27.9 % African American), 10.6 % of children grades 4–12 in New York City public schools met criteria for PTSD.

Rates of PTSD in African American youth are similar to their European American counterparts, suggesting some cross-race similarities; however, trauma exposure may disproportionately impact African American youth. Specifically in a sample of urban youth ranging in socioeconomic status from very poor to low middle class ($N=2311$; 71 % African American), it was found that by age 23, 82.5 % of subjects were exposed to any type of trauma, and PTSD prevalence was 7.9 % for females and 6.3 % for males (Breslau, Wilcox, Storr, Lucia, & Anthony, 2004). Type of trauma exposure for this sample included assaultive violence (i.e., sexual assault, shot/stabbed, mugged; 25.8 %), other injuries or shocking events (i.e., car accidents, witnessing killings/serious injury, discovering a dead body; 26.4 %), learning of traumas occurring to a close friend or relative (27.3 %), and learning about an unexpected death (20.4 %).

B.A. Sawyer (✉) • M.T. Williams • R.C.T. DeLapp
D.M. Davis
Department of Psychological and Brain Sciences,
Center for Mental Health Disparities, University of
Louisville, Louisville, KY 40292, USA
e-mail: broderick.sawyer@louisville.edu

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Sociocultural Context of PTSD in African American Youth

DSM-5 Criteria

The DSM-5 criteria for PTSD include exposure to a traumatic event, including direct experience, witnessing the event, learning the event occurred to a close friend or family member, and experiencing repeated or extreme exposure to the details of a traumatic event (American Psychiatric Association, 2013). Also, presence of one or more intrusion symptoms must be present, including recurrent, intrusive and distressing memories of an event, distressing dreams about the event, dissociative flashbacks about the event, prolonged intense distress when reminded of the trauma by external cues, and physiological reactions to these external cues. Criteria also include avoidance of stimuli associated with the trauma, such as avoidance of distressing feelings, thoughts, or memories about the trauma, or avoidance of external reminders of the trauma. Negative alterations in mood or cognitions may also be present, which may include: negative beliefs or expectations about oneself, distorted cognitions about the trauma, world, or cause of the trauma, persistent negative emotional state, feelings of detachment, inability to experience positive emotions, diminished interest in significant activities, and the inability to remember aspects of the event. Additionally, alterations in reactivity and arousal associated with the traumatic event may be present, such as: irritable behavior, hypervigilance, exaggerated startle responses, self-destructive behavior, problems with concentration, and sleep disturbance (American Psychiatric Association, 2013).

The DSM-5 has been revised to include not only the experiencing of a trauma, but opened up the definition of trauma into four possibilities (direct, witnessing, learning about a trauma occurring to someone close to you, experiencing repeated or extreme exposure to details of a trauma), which provides more clinical utility for individuals experiencing symptoms as a result of experiencing trauma indirectly. Furthermore, the emotional reaction to the trauma was deleted, and the avoidance/numbing symptom clusters were split into two sections. Additionally, changes included specifying responses more salient to children, as children may illustrate re-experiencing symptoms through play, providing more developmental sensitivity to symptom assessment. In light of the changes made to the DSM, it may now be possible to consider more sociocultural factors that influence PTSD symptoms in ethnoracial minorities (i.e., community violence exposure, racial discrimination).

Community Violence Exposure

Extant literature has identified relevant factors that uniquely influence the experience of traumatic stress for African American youth. Mentioned earlier, a core symptom of PTSD is the encountering or witnessing of a traumatic life event, which for certain African American youth disproportionately includes violence exposure. African Americans residing in impoverished neighborhoods may have fewer resources and higher levels of trauma exposure (e.g., community violence), which may present more realistic threats, potentially causing more extreme anxious reactions. African American children and adolescents may be more likely to be exposed to interpersonal trauma, especially if they live in urban settings (Richards et al., 2004), and compared to other ethnic groups, homicide rates are highest among African American adolescents (Centers for Disease Control and Prevention, 2009).

Hunt, Martens, and Belcher (2011) analyzed data from 257 medical records of African American children (*M* age = 11.7 years; 56 % female) from an urban mental health center specializing in treating children exposed to community violence and maltreatment, utilizing evidence based treatments between 2004 and 2007 at John Hopkins in Baltimore. Results demonstrated that community violence was associated with PTSD symptoms, and that physical abuse and being a female was associated with more PTSD symptoms. In addition, results indicated that despite significant traumatic exposures, the current sample had a 16 % rate of clinically significant symptoms, compared to 25–40 % reported in other studies (Fletcher, 1996). This may suggest that African American children may respond differently to traumatic experiences. Given that these children may be more likely to encounter uncontrollable interpersonal trauma, they may resort to emotional coping tactics that may reduce the likelihood of developing PTSD (Edlynn, Gaylord-Harden, Richards, & Miller, 2008). Resilience may have a positive impact on African American youth, buffering the negative effects of violence exposure. Specifically, Jones (2007) investigated the relationship among chronic community violence exposure and PTSD development. Results illustrated that spirituality, combined social support, and formal kinship buffered negative effects of chronic violence exposure among 71 African American children aged 9–11. This study shows the positive effects of several types of buffering factors in African American youth, and illustrates that there may be more than one factor contributing to resiliency for populations exposed to community violence.

Additionally, the multiple occurrences of trauma experienced within African American youth, or cumulative trauma, may predict greater negative outcomes. As mentioned previously, cumulative trauma is the occurrence of several traumas such as witnessing violence, hearing about incidents of violence, and experiencing abuse (Kira, Lewandowski, Templin, & Hammad, 2005), and can impact several developmental experiences, including attachment, individualization, interdependence, achievement/self-actualization, and survival. Furthermore, frequent trauma exposure may lead to stress-related health conditions, negatively impacting life expectancy (Clark, 2003; Peters, 2004). In a sample of 175 African American adolescents, Conner-Warren (2013) found that African American youth were experiencing considerable levels of trauma across both genders. The authors hypothesized that these experiences of cumulative trauma would result in an increase in blood pressure, due to the release of cortisol and epinephrine as a result of trauma exposure. However, this hypothesis was not supported, suggesting that experiences of cumulative trauma may not elicit a physiological response within this population, consistent with previous research finding the absence of a physiological reaction after repeated exposure to chronic stress (Diseth, 2005).

African American children may also experience significant psychological distress as a result of events happening to close family members or friends. Jenkins, Wang, and Turner (2009) found that for African American male children, but not females, having a friend or family member injured or die in a violent incident was related to internalizing behaviors such as anxiety, somatization, and depression. These findings suggest that the overall stress within African American communities, especially for African American males, may produce negative mental health outcomes even when these events are not personally experienced.

Race-Based Trauma

In addition to disproportionate community violence exposure, race-based trauma needs to be considered as a contributing factor to PTSD symptoms in African Americans. Race-based trauma can range from blatant hate crimes and physical assault, to more frequent ambiguous microaggressions. Racial microaggressions are pervasive and subtle acts of racial discrimination against minority groups, including vague insults, non-verbal exchanges, or brief remarks that denigrate people of color (Franklin, 1999; Gaertner & Dovidio, 2005; Pierce, Carew, Pierce-Gonzalez, & Willis, 1978; Sue et al., 2007). When trying to pinpoint the intention of the person committing the microaggression, African Americans may experience stress and a decrease of mental energy. Furthermore, more severe race-based stressors that may actually threaten an individual's life can directly cause PTSD, while smaller microaggressions may cause constant paranoia or vigilance which can produce PTSD symptoms over time (Carter, 2007).

The conceptualization of incidents of racism as traumatic is a result of an individual being victimized by another powerful individual. Physical or verbal racism-related experiences may negatively impact a person's sense of self, and these experiences may be ambiguous, specific and obvious, or systematic. Bryant-Davis and Ocampo (2005) postulate that racism-related trauma is comparable to emotional abuse, potentially causing PTSD symptoms. There is scant research assessing specific symptoms resulting from race-based trauma, but Carter and Forsyth (2010) assessed the psychological reactions to racism in African American survey responders. Their study illustrated that subjects reporting instances of racism experienced more anxiety, hypervigilance, shame, and guilt. Although there have not been many studies conducted on the deleterious effects of race-based trauma in African American youth, the impact of such traumatic experiences is evident in adults. Further, a strong, positive ethnic identity may buffer against anxious and depressive symptoms caused by racial discrimination in African American adults (Williams, Chapman, Wong, & Turkheimer, 2012).

Ethnic identity is a person's self-concept stemming from membership to a social group, and that person has emotional significance as a part of the membership (Tajfel, 1981); this membership is important to ethnoracial communities (Arce, 1981; Cross, 1978; Makabe, 1979). According to Phinney (1992), ethnic identity begins to develop during early adolescence in simple ways, but during later adolescence and young adulthood it becomes more defined. This process occurs through racial socialization, which are culturally salient messages and behaviors communicated through parents and caregivers concerning cross-race interactions (Bowman & Howard, 1985; Spencer, 1983).

Given that ethnic identity does not fully develop until late adolescence or young adulthood, African American children and adolescents may be more vulnerable to the deleterious effects of race-based trauma. Race-based traumatic experiences may disrupt the development of an individual's ethnic identity. Ethnic identity is related to how an individual feels in relation to their membership to a social group, so negative information communicated to them through racism in the form of race-based trauma or racial microaggressions, may make it difficult for them to develop positive feelings about belonging to a particular cultural group.

Treatment for Pediatric PTSD

Pharmacotherapy

When considering the psychopharmacological treatment of PTSD, Strawn, Keeshin, DelBello, Geracioti, and Putnam (2010) reviewed literature from the National Library of Medicine to investigate pharmacologic treatments of PTSD in children and adolescents. Articles reviewed included one randomized controlled trials (RCTs) for selective serotonin reuptake inhibitors (SSRIs), three RCT of imipramine, and several open-label studies using other medications (e.g., antiadrenergics, other antidepressants, and second generation antipsychotics). Results suggested that for children and adolescents, empirically supported psychotherapies should be used as first line treatments for PTSD, as opposed to SSRIs, and that there is limited evidence for the use of antiadrenergics, second generation antipsychotics, and several mood stabilizers, all which may reduce PTSD symptoms. In an RCT of SSRIs, Cohen, Mannarino, Perel, and Staron (2007) investigated a sample of 22 adolescents (2.3 % African American), randomly assigning subjects to a group utilizing trauma focused cognitive behavioral therapy (CBT) and the SSRI sertraline, or only trauma focused CBT. Results indicated that both groups experienced a significant reduction in PTSD symptoms, however no group differences were found other than child global assessment scale ratings favoring the medication and CBT group. These findings also suggest that SSRIs should not be used as a first line treatment for PTSD in youth, rather they may be most useful in combination with an empirically supported treatment, such as CBT.

Other studies have arrived at conflicting conclusions. In a sample of 26 children and adolescents (30.8 % African American), Stoddard et al. (2011) compared sertraline versus a placebo and found significant parent-reported symptom reduction over 8 weeks, 12 weeks, and 24 weeks. However, child-reported symptoms did not indicate significant symptom reduction. When considering medication other than SSRIs for PTSD, Steiner et al. (2007) investigated the use of divalproex sodium in adolescents with conduct disorder and PTSD ($N = 12$; no African American subjects). Results indicated that compared to the control group, the treatment group reported reduced core PTSD symptoms (intrusion, avoidance, and hyperarousal), as well as reduced aggression. Although pharmacological treatment for childhood and adolescent PTSD appears promising, more RCTs need to be conducted to better understand which medications are most efficacious. Additionally, RCTs need to include more African American children and adolescents, as the aforementioned studies are made up of primarily non-Hispanic White samples.

Psychosocial Treatment

When considering treatment of childhood PTSD, RCTs have revealed that there are a multitude of effective treatments, however it is important to note that an insufficient number of carefully controlled studies have been conducted with African American children and adolescents. Therefore, the following studies lack a useful number of African American subjects, which makes it difficult to draw reliable conclusions about non-White children and adolescents.

There are many effective treatments for childhood PTSD. Gillies, Taylor, Gray, O'Brien, and D'Abrew (2013) reviewed 14 RCTs investigating PTSD treatment in children and adolescents. This review concluded that cognitive behavioral therapy (CBT), psychodynamic, narrative, EMDR, and supporting counseling were all effective in reducing symptoms; however across all studies, the most effective treatment was CBT. This review echoes findings by Dyregrov and Yule (2006), who conducted a similar review of PTSD treatment for children and adolescents, finding that CBT (individual and group) was the most effective and most well documented treatment for PTSD. Furthermore, prolonged exposure (PE) has been extremely efficacious in reducing PTSD symptoms in children and adolescents (Nacasch et al., 2011; Rachamim, Mirochnik, Helpman, Nacasch, & Yadin, 2015). Specifically, Gilboa-Schechtman et al. (2010) compared two types of brief psychotherapy, and found that the behavioral trauma focused components of prolonged exposure enhanced the efficacy of reducing PTSD symptoms, as well as depressive symptoms and global functioning. Furthermore, Ruf et al. (2010) found that narrative exposure therapy in refugee children significantly reduced PTSD symptoms compared to a control group, and these improvements persisted at a 12-month follow-up, echoing the value of behavioral interventions when treating childhood PTSD.

Although CBT and prolonged exposure treatment have been extremely effective in the treatment of childhood PTSD of non-African American populations, there are a number of other treatments that have shown promising results. Research has also supported the efficacy of eye movement desensitization and reprocessing (EMDR) therapy for PTSD in children (Chemtob, Nakashima, & Carlson, 2002; Diehle, Opmeer, Boer, Mannarino, & Lindauer, 2014), suggesting that this treatment is suited for PTSD afflicted youth. Furthermore, findings by Ahmad, Larsson, and Sundelin-Wahlsten (2007) illustrated the effectiveness of EMDR, and noted that improvement in re-experiencing symptoms was the most significant difference between the treatment and control groups.

Anxiety-management training in youth with PTSD has also been shown to be effective in reducing symptoms, and uses cognitive restructuring to alter distorted cognitive biases which may maintain PTSD symptoms (Farrell, Hains, & Davies, 1998). When considering group treatments for PTSD in children, numerous studies have found it to be effective. Specifically, the use of group administered CBT for PTSD in children has been used effectively to reduce symptoms (Chemtob, Nakashima, & Carlson, 2002; Goenjian et al., 1997; March et al., 1998).

Treatment Considerations for African American Youth

Psychological Assessment

When assessing PTSD symptoms, it is essential to consider the psychometric properties of assessment materials being administered. Specifically, clinicians should be knowledgeable as to whether or not a particular measure has been validated in a sample of African American youth. Otherwise, PTSD symptoms may not be accurately assessed, potentially producing misdiagnosis. There have not been many studies assessing psychometric properties of PTSD assessment tools in African American children and adolescents, and much research is still needed to determine appropriate measures for this demographic.

Malcoun, Williams, and Bahojb-Nouri (2015) reviewed the literature concerning the psychometric properties of commonly used PTSD assessment tools for use in African American clients. The authors found that there are many appropriate measures for use in African American adults (e.g., PTSD checklist, Blanchard, Jones-Alexander, Buckley, & Forneris, 1996; Modified PTSD Symptom Scale, Falsetti, Resnick, Resick, & Kilpatrick, 1993; PTSD Severity Scale-Interview Version, Foa, Riggs, Dancu, & Rothbaum, 1993), suggesting that these same measures may be useful in African American youth. However, future research is needed to investigate the psychometric properties of such measures in African American children and adolescents.

Psychosocial Treatment in African American Youth

As noted previously, studies investigating empirically supported and gold standard (i.e., CBT, prolonged exposure) treatments for PTSD utilize primarily non-Hispanic White samples. However, in an RCT with a sample of 65 children aged 3–6 years (59.5 % African American), Scheeringa, Weems, Cohen, Amaya-Jackson, and Guthrie (2011) utilized a 12-session trauma focused CBT protocol adapted for sexually abused preschool children and compared the treatment and control groups. Results showed that African American children dropped out at a higher rate than non-Hispanic Whites, but there was significant improvement of PTSD symptoms in the treatment group, but not the control group. Also, a study by Cooley-Strickland, Griffin, Darney, Otte, and Ko (2011) evaluated a school-based CBT anxiety prevention program in a sample of primarily African American children (92 %). The program consisted of 13 biweekly hour-long group sessions, and compared to the control group, the intervention group showed significant reductions in life stressors and victimization by community violence, as well as increased mathematics achievement scores. Specifically, the program taught children strategies to cope with anxiety, such as relaxation techniques, self-talk, and engaging in positive feelings and thoughts. Altogether, though many RCTs for PTSD in African American youth are needed, the aforementioned studies offer preliminary evidence that supports the use of CBT-related interventions that may reduce anxiety in relation to community violence. Furthermore, school-based programs may be more plausible to implement within these populations.

Mental Health Stigma and Treatment Seeking

African Americans may endorse a mistrust of psychotherapy and have less access to treatment programs (Alvidrez, Snowden, & Kaiser, 2008; Williams, Domanico, Marques, Leblanc, & Turkheimer, 2012), so it may be more acceptable to use school-based programs that are more accessible. When considering the acceptability of mental healthcare in the African American community, members of this population may be more skeptical of services. In a qualitative study assessing attitudes of mental healthcare in African Americans participating in a study on OCD, participants endorsed concerns of stigma relating to having a mental health disorder. These concerns involved the social consequences of disclosing a mental health disorder, as well as cultural mistrust of providers (Williams, Domanico, et al., 2012). Further, subjects reported concerns pertaining to unfair treatment due to being African American, fears of being misunderstood by their providers, and being uncomfortable discussing problems with providers. Participants also had logistical concerns, reporting treatment access and financial burden as barriers to treatment.

Community Violence and Treatment

When treating African American youth, clinicians may need to be more aware of the greater variety of traumatic experiences these individuals may to encounter when assessing PTSD. When considering children living in urban and/or impoverished neighborhoods, assessing exposure to a variety of traumatic experiences may provide a more thorough assessment of potential PTSD symptoms. These experiences may be normal for some African American youth, so they may not report many traumatic experiences. Gathering comprehensive information about trauma exposure may offset a reluctance to report experiences and symptoms, as well as open dialogue about these experiences. Furthermore, when working with parents, gathering similar information may be informative.

In addition to a more thorough assessment of trauma exposure, clinicians need to be sensitive to the reality that trauma exposure may happen again if an African American youth lives in an area where those experiences are commonplace. For example, cognitive processing of a trauma is used to change a client's perspective about a trauma, and allows the client to revisit the trauma as an isolated event (Foa, Huppert, & Cahill, 2006). However, when considering that violence exposure may be frequent in these populations, telling a client that a traumatic event is an isolated event may be inaccurate, which may risk retraumatization if an event reoccurs (Williams et al., 2014).

Race-Based Trauma and Treatment

Although few RCTs for empirically supported treatments in African American youth have been conducted, there is preliminary evidence suggesting that adapting gold-standard PTSD treatment protocols to include the assessment and treatment for racism-based trauma may successfully reduce symptoms. Specifically, Williams et al. (2014) outlined cultural adaptations to prolonged exposure for African American adults, including more thorough psychoeducation, integrating values that may be more salient to African Americans, and using in vivo exposures that may be more relevant to African Americans. Likewise, these adaptations may also be useful when using prolonged exposure for African American children and adolescents with PTSD.

During psychoeducation, Williams et al. suggested that taking more time to ensure African Americans fully understand the treatment protocol can help in reducing anxiety surrounding mental health care. With cultural mistrust prevalent in the African American community, being transparent becomes essential in therapeutic interactions. Also, taking more time to ensure that clients fully understand the treatment process may take more time, further bolstering a strong therapeutic alliance. The authors also outline culturally sensitive approaches to assessing for racism-based trauma.

As Bryant-Davis and Ocampo (2005) explained, when considering racism as a traumatic event, there may not be a consensus among others about whether or not the event occurred; whereas military combat or natural disasters receive this general consensus. Due to this ambiguity about the occurrence of the event there may be invalidation by others, as Sue et al. (2007) found that experiences of racism are usually met with suspicion. Furthermore, it may be difficult for a non-Hispanic White clinician to understand racism, as it is most commonly experienced by ethnoracial minorities (Chou, Asnaani, & Hofmann, 2012). This lack of understanding may cause clinicians to meet clients reporting racist experiences with ridicule, thus invalidating clients' experiences and subsequently damaging the therapeutic alliance. When conducting prolonged exposure, Williams et al. (2014) advised clinicians to take a genuine interest in the Black experience and attempt to fully understand whether or not the clinician has personally experienced racism (i.e., "I don't understand but I want to"). Although African American clients may not believe that their non-Hispanic White clinicians understand the experience of racism, being listened to helps to validate their experience and strengthen the therapeutic alliance. Additionally, if the clinician is the same ethnoracial background of the perpetrator, discussing the racist experience may serve to expose the client to feared interactions with that particular race. Given that their experiences of racism are met with ridicule (Sue et al., 2007), discussing the nature and distress of racism with a non-Hispanic White clinician can disconfirm any negative beliefs about their experience being met with skepticism. In addition to discussing the nature of their racism-based trauma, being more collaborative throughout the treatment process (i.e., during exposures, cognitive processing) may help foster a sense of control for African Americans, helping them be more open to adhering to treatment, as well as strengthening the therapeutic alliance (see Williams et al., 2014 for full protocol adaptations).

Conclusion

In order to assess treatment efficacy in African American children and adolescents, a plethora of RCTs utilizing empirically supported treatments for PTSD are needed. The lack of RCTs using primarily African American children and adolescent samples makes it difficult to know whether or not particular treatments for PTSD are effective for these populations. Future research needs to prioritize conducting RCTs of empirically supported treatments for PTSD with these samples, as well as assess the impact of sociocultural factors on symptoms (i.e., community violence exposure, racism-based trauma).

This chapter discussed important sociocultural factors impacting the symptom expression and treatment of PTSD in African American youth. In particular, African American youth residing in impoverished neighborhoods have been found to be exposed to heightened rates of violence (Centers for Disease Control and Prevention, 2009; Richards et al., 2004), which in turn is associated with increased symptoms of PTSD (Hunt et al., 2011). According to a review of available treatments, CBT, prolonged exposure, psychodynamic, narrative, EMDR, and supportive counseling have been shown to improve symptoms of PTSD in children and adolescents (Gillies et al., 2013); however, some evidence suggests that prolonged exposure is most effective (Dyregrov & Yule, 2006). Though research has proposed that psychosocial therapies are the first line of treatment for PTSD (Strawn et al., 2010), it has been determined that SSRIs, antiadrenergics, second generation antipsychotics, and several mood stabilizers may represent viable options as adjunctive therapies (Cohen et al., 2007; Strawn et al., 2010). Similarly, future research is needed to better understand specific treatment considerations for African American youth with PTSD. However, the few studies that have focused on the experiences of African American youth receiving treatment for PTSD demonstrate that CBT does improve symptoms (Cooley-Strickland et al., 2011; Scheeringa et al., 2011), but suggest that African American youth may be more likely to drop out of treatment (Scheeringa et al., 2011). Furthermore, it is worth noting that the school-based protocol designed by Cooley-Strickland and colleagues provides another example of how to adapt treatment to overcome potential barriers.

The adaptations made to the prolonged exposure protocol for PTSD in African Americans by Williams et al. (2014), although aimed at treating adults, may be useful in African American youth. The protocol seeks to assess and treat race-based traumatic reactions and lessen the impact of cultural mistrust of mental healthcare within the African American community when treating PTSD. Given that African American youth are socialized similarly to their adult counterparts, conducting RCTs with this treatment protocol may be worthwhile in finding.

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Schizophrenia

15

Sala Webb

Introduction

Schizophrenia can be a scary and at times debilitating condition; not only for the affected individual, but also for family members, friends, and caregivers. It is even more unsettling when the diagnosed person is a child or adolescent. To fully understand a person and their symptoms, it is necessary to have a comprehensive appreciation of biological, environmental, social, economic, and cultural elements that influence that individual's sphere of existence.

This chapter examines the expression of schizophrenia in African American youth and how the aforementioned factors exert their related influence. While not addressed explicitly in this chapter, the historical context of the experience of African Americans in the USA should be kept in mind. Appreciation should be held for the many past examples of discrimination and oppression through conflictual interactions with health professionals, unethical research practices, and the pejorative application of mental illness categorization as detailed elsewhere in this book.

Definition

The most recent iteration of the *Diagnostic and Statistical Manual of Mental Disorders*, the DSM-5 (American Psychiatric Association, 2013), requires that for an individual to be diagnosed with schizophrenia, either delusions, hallucinations or disorganized speech must be demonstrated for at least 1 month and can be accompanied by catatonic or disorganized behavior as well as negative symptoms. As a result of these, the individual's level of functioning is significantly impaired and there is evidence of some manner of disturbance for at least 6 months. In addition, this eruption of symptoms cannot be attributable to another medical condition, effects of a substance or an affective disorder with inherent psychotic elements (American Psychiatric Association, 2013). These characteristic symptoms of schizophrenia typically manifest from the late teen years through the mid-30s. Evidence of symptom criteria before the age of 18 years has been termed Early Onset Schizophrenia (EOS); with emergence before 13 years of age referred to as Childhood Onset Schizophrenia (COS) (American Academy of Child and Adolescent Psychiatry, 2013). The DSM-5 also stresses that, "when the onset is in childhood or adolescence, there is failure to achieve expected level of interpersonal, academic or occupational functioning" (American Psychiatric Association, 2013, p. 99).

S. Webb (✉)
Webb Psychiatric Consulting, 9702 Gayton Road,
Suite 120, Richmond, VA 23238, USA
e-mail: webbpsychiatric@gmail.com

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Epidemiology

The World Health Organization estimates that 24 million people across the globe are affected by schizophrenia (World Health Organization, 2014). In the USA, this amounts to a disease prevalence of just over 1 % (National Institute of Mental Health, n.d.). Of this group, less than 1 % are officially diagnosed with schizophrenia in childhood as only one per ten thousand children receives the categorization of COS (Khurana, Aminzadeh, Bostic, & Pataki, 2007).

It should be noted that prevalence estimates change slightly based on race, ethnicity, and geographic origin. Moreover, there is evidence of variation between sexes when looking at age of onset (earlier for males) and dominant symptoms (negative symptoms in males, affective symptoms in females) (American Psychiatric Association, 2013).

It is challenging to find specific data on the prevalence of schizophrenia broken down by race in the USA. This is mainly because the information available has focused on the diagnosing of schizophrenia and associated discrepancies. When these data were further deconstructed, the conclusions stated that there is indeed a greater incidence of the diagnosis of schizophrenia in African Americans as compared to other minority groups and Caucasians. Reasons for this included influences from historical suppression, environmental risk factors, clinician biases, and variability of beliefs within the African American community.

A good example is seen in the cohort of offspring of mothers who were enrolled in the Kaiser Permanente Child Health and Development Study from 1981 to 1997. Researchers found that in this study population, African Americans were three times more likely to be diagnosed with schizophrenia than their Caucasian cohorts. Asians were twice as likely as whites to receive the same diagnosis. The effect of race on family socioeconomic status held some sway, but additional influencing factors, such as a difference in the detection/diagnosis of schizophrenia in African Americans, psychotic diagnoses are more likely to be given to African Americans than an affective one. Segregated neighborhoods, discrimination, and genetic and biological racial differences such as Vitamin D status were cited as possible contributing agents as well (Bresnahan et al., 2007).

Etiology and Pathogenesis

There are many theories as to the necessary and catalytic ingredients that contribute to the schizophrenia disease complex. For the most part, it is viewed as a heterogeneous entity and as such there is likely no single pathway that leads to its combination of symptoms. It is more probable that various interplays of biological and environmental factors increase an individual’s likelihood of expressing the categorical schizophrenia symptoms.

Biological Considerations

Genetic Risk It has been consistently shown that the concordance rate for schizophrenia is 40–50 % in monozygotic twins and 5–10 % in dizygotic twins (Kringlen, 2000). The prevalence rate in other first-degree relatives is also 5–10 % (Fischer & Buchanan, 2012).

Paternal Age It has been observed that paternal age of 30 years or above at the time of conception, increases the risk of schizophrenia (Miller et al., 2011).

Perinatal Stress The perinatal period is critical as the developing brain is vulnerable. Factors leading to maternal stress such as famine, carrying an unwanted pregnancy, and prenatal death of the father can contribute to an increased risk of developing schizophrenia later in life (Koenig et al., 2005). In addition, obstetrical complications such as hemorrhage, pre-term labor, and blood-group incompatibilities can also enhance the probabilities of manifesting schizophrenia by twofold (Clarke, Harley, & Cannon, 2006).

Infections There is an increased prevalence of schizophrenia among those born in the course of influenza epidemics (Brown & Derkits, 2010), as well as during the months of late winter and early spring. It is postulated that the latter association may be due to increased exposure through maternal elements to the influenza virus, thus affecting fetal neural development (Fischer & Buchanan, 2012). Another microbe with suggested connection to the occurrence of schizophrenia is *Toxoplasma gondii*, where elevated maternal levels of related IgG antibodies were found to raise the risk (Brown et al., 2005). Concentrations of measles antibodies are also greater in persons with schizophrenia (Dickerson et al., 2010).

Inflammation Interestingly enough, it is thought that the infectious agents mentioned above do not confer their damage to the developing brain by direct attack, but more realistically through the inflammation process. Subsequently activated neurochemicals, such as cytokines that are triggered within the maternal circulatory system, travel by means of the placenta, compromise the fetal blood–brain barrier which then provides access to the forming fetal nervous system for antibodies which can cross-react with neuronal proteins (Benros et al., 2011). To add further support to this theory, there are autoimmune disorders which seem to confer an increased risk for manifesting symptoms of schizophrenia, such as acquired hemolytic anemia, bullous pemphigoid, celiac disease, interstitial cystitis, and thyrotoxicosis (Eaton et al., 2006).

Vitamin D Deficiency Vitamin D deficiency has been associated with psychotic symptoms in adults and adolescents; with an increased prevalence among non-Caucasian populations (Gracious, Finucane, Friedman-Campbell, Messing, & Parkhurst, 2012). It has been found that supplementing Vitamin D from the perinatal period through the first year of life decreases the incidence of schizophrenia (McGrath et al., 2004).

Neurotransmitters The dopamine hypothesis of schizophrenia has been a longstanding one. It delineates that there is an excess of dopamine circulating in the mesolimbic tract (D2 receptors) that produces positive psychotic symptoms. Simultaneously, there is less dopamine available to the prefrontal cortex (D1 receptors) manifesting as negative symptoms and cognitive impairment. A second candidate is glutamate that is usually responsible for activation of the Central Nervous System (CNS). Hypofunctioning of its affiliated *N*-methyl-ᴅ-aspartate receptor (NMDAR) has been thought to lead to psychotic symptoms. It is also hypothesized that gamma-amino-butyric acid interneurons, generally responsible for inhibition of the CNS, are dysfunctional in persons with schizophrenia. Acetylcholine may also play a role in the pathogenesis of schizophrenia as it has been observed that treatment with nicotine can improve some aspects of cognition (Fischer & Buchanan, 2012).

Substance Use It is now more than just anecdotal evidence that cannabis use increases the incidence of psychotic symptoms, independent of other variables such as age, gender, socioeconomic status, use of other drugs, urban/rural environment, and confounding psychiatric conditions. This relationship has been found to be dose dependent. One proposed theory is that continued cannabis use increases the likelihood of transforming usually transitory psychotic experiences of young people into persistent ones (Keupper et al., 2011). It has also been observed that NMDAR antagonists such as phencyclidine (PCP) and ketamine induce symptoms of acute schizophrenia (Frohlich & Van Horn, 2014). While these effects are usually transitory, it is possible for them to persist with continuous use of the aforementioned substances.

Environmental Considerations

Immigration Schizophrenia is increased in both first- and second-generation immigrants by twofold when compared to the native, majority population (Bourque, van der Ven, & Malla, 2011). The younger the immigrant, the greater the risk; those less than 4 years of age have three times the risk and those 29 years and older have the same level of risk as the native-born majority population (Veiling, 2013).

Urbanicity Social drift has been the original concept to explain why schizophrenia seemed to be more common in urban/inner-city areas. The idea speaks to the notion of a person, because of his/her positive and negative symptoms having a decreased ability to be a typical, productive, and functioning member of general society. Because of the illness, there are fewer employment and education options, resulting in decreased earning capacity and all the consequences that often follow. However, social drift appears to deal more with the prevalence as opposed to the incidence of schizophrenia; unless it is extrapolated that because there are more individuals with schizophrenia in a specific area, they are hence more likely to procreate with each other, thus promulgating the genetic risk for the disease (Heinz, Deserno, & Reininghous, 2013).

More recent data confirm that the risk of schizophrenia increases as the rate of urbanization increases, specifically with regard to where the future individual with schizophrenia was born and raised. This increased risk can be as high as twofold and is dose-respondent with risk decreasing as one moves away from the inner city/city center (Heinz et al., 2013).

Diagnostic Bias For quite some time, this hypothesis was cited as the main rationale for the increased rates of schizophrenia in minority populations; in particular, in African Americans. Diagnostic bias is described as resulting from the misclassification of minority individuals as exhibiting psychotic symptoms due to neglectful history-taking, either by not obtaining significant elements of symptom progression, misinterpreting data, or being oblivious to cultural and social contextual factors that influence the manner in which symptoms are viewed and expressed (Adeponle, Thombs, Groleau, Jarvis, & Kirmayer, 2012; Veiling, 2013). This results in psychotic symptoms being overvalued in African Americans, which inherently means a poorer prognosis and exposure to different and potentially more harmful treatments.

Social Marginalization It can be surmised from currently available research that growing up in an ethnic minority position increases the risk for psychosis and with it schizophrenia due to the accumulation of experiences of social marginalization as well as greater exposure to various forms of social adversity (Veiling, 2013). From the myriad of candidate biological and environmental factors associated with the development of schizophrenia, we can see how some could directly influence its expression in African American populations. Examples of such would include entities that increase the stress of the mother while pregnant, social marginalization, urbanicity, immigration, and diagnostic bias. With some of the other associated risk factors such as infections, inflammation, and neurotransmitter dysfunction, it is not as clear how these could or would bring about a seemingly increased manifestation of schizophrenia in African Americans.

Childhood Onset Schizophrenia

Children with COS have smaller volumes of total gray matter by the order of 8–10 % when compared to age-matched controls. This decline occurs gradually from early childhood through adolescence. These losses can be found in the frontal, temporal, and parietal gray matter areas and are not seen either in healthy children and adolescents or those with atypical psychosis. There are currently three main competing views to explain this phenomenon. One is that there is a static lesion that arises during fetal brain development, which is substantial enough on its own to bring about the manifestations of the condition. The second is that during adolescence excessive and anomalous pruning can result in aberrant neuronal connectivity. Thirdly, it is proposed that multiple factors are involved in the clinical presentation of COS including genetic and environmental elements (Driver, Gogtay, & Rapoport, 2013).

To provide further context for the presentation of psychotic symptoms in children, research has shown that these children are more likely to have mothers with psychosis-spectrum disorders and family members with serious mental illness. They also tend to live in urban locations and are more likely to come from disadvantaged backgrounds. As newborns, they were low weight for gestational age and suffered increased perinatal complications (Polanczyk et al., 2010).

African American Perceptions

The above-mentioned factors are those seen by the current scientific community as the main considerations for the causation of schizophrenia. Given that our population of focus is African American children and adolescents who for the most part, are cared for by parents/relatives, it is useful to understand the perspective of their caregivers as to what they think triggered schizophrenia. One study attempted to do this and, though small, gleaned that African American family members reported the belief that their loved one experienced symptoms of schizophrenia because of disturbances in brain chemistry, hereditary factors, drug or alcohol abuse, or an infection of the brain (Esterberg & Compton, 2006). However, many also thought that avoidance of problems in life could lead to one developing schizophrenia. Most felt that hostile or rejecting attitudes of parents and coming from a broken home increased the occurrence of schizophrenia. Possession by evil spirits and effects of environmental pollution were also believed to play an important role.

Clinical Presentation

Though most individuals demonstrate active psychotic symptoms by the time they come to the attention of medical and behavioral health providers, these are typically not the first signs of illness. It is not uncommon for family members to report an observed decline in social interaction, seeming apathy and avolition, or what may look like depressive symptoms for a period of weeks to months prior to the onset of psychosis. This is referred to as the prodromal phase of the illness and it is usually during this period that disorganized thinking and behavior start to gradually become evident (American Psychiatric Association, 2013). These symptoms are likely to be reported by family, friends, co-workers, teachers, and others rather than the individuals themselves who often may not recognize or appreciate their own decline in functionality. Deficits of insight tend to be common in schizophrenia as well. For African Americans with a family history of schizophrenia, there is an earlier onset of prodromal symptoms and psychotic symptoms by as much as 4 years (Esterberg & Compton, 2012).

Early Predictors

Aside from the prodromal phase that tends to be more prominent in the traditional manifestation of schizophrenia during the late teenage and early adult years, there are additional clues that one needs to consider when differentiating EOS and COS. COS represents a more severe form of the disorder and is associated with numerous premorbid abnormalities. Learning disabilities, deficits in language and socialization, and neurological/motoric disturbances are evident in two-thirds of children with COS. Of note, up to 27 % of these children have met diagnostic criteria for autism spectrum disorders (ASD) prior to the onset of psychotic symptoms. This is not something that has been particularly noted for later-onset schizophrenia counterparts (Driver et al., 2013).

Setting of Presentation

“Epidemiological studies have shown that most children and adolescents with psychiatric disorders receive no mental health treatment” (Cuffe, Waller, Cuccaro, Pumariega, & Garrison, 1995, p. 1536). Family members and friends seem to be the parties most often responsible for bringing an African American person to mental health attention, when there are concerns for prodromal or psychotic symptoms. Unfortunately, in one-fifth of these cases, police intervention is usually involved as well. Conversely, primary care providers do not seem to play an active role in referring such persons to mental health treatment. These findings also seem to hold true for African Caribbean and Black Africans in the United Kingdom (Compton, Esterberg, Druss, Walker, & Kaslow, 2006). African Americans are also more likely to be referred to correction services than to psychiatric facilities (Cuffe et al., 1995).

African Americans seem to present to primary care providers mostly with early, non-specific prodromal symptoms. When symptoms become prominent, but not dangerous, they are brought to mental health professionals. Mostly, treatment is sought in psychiatric and general emergency departments especially when symptoms are heightened. This often results in the first line of treatment being inpatient hospitalization (Compton et al., 2006).

Duration of Untreated Illness and Duration of Untreated Psychosis in First Episode Psychosis

The duration of untreated illness (DUI) is the length of time between the onset of prodromal symptoms and the initiation of psychiatric treatment. Similarly, the duration of untreated psychosis (DUP) captures the time span from the onset of psychotic symptoms to the initiation of psychiatric treatment. As a whole, adolescents tend to experience a longer DUP as compared to adults: 27.7 versus 18 weeks (Ballageer, Malla, Manchanda, Takhar, & Haricharan, 2005), and 25.6 versus 11.6 weeks (Dominguez et al., 2013).

One study found that it took African American families, on average, 59 weeks from the first onset of symptoms to the time the affected individual made it to initial treatment (Compton, Kaslow, & Walker, 2004). The delay was attributed to differences in opinion among the family members, fairly high threshold for tolerating/dismissing unusual behavior, and perceived difficulty in accessing appropriate psychiatric services. Another found that the median DUI among African American individuals first presenting to treatment was 128 weeks, and the corresponding DUP was 49 weeks (Compton et al., 2006). The lengthy duration of these two constructs are not heavily influenced by the time between first mental health contact and adequate evaluation, but more so by the delay in seeking treatment in the first place. This confirms the paradigm that African Americans may tolerate higher levels of symptoms in adolescents than do Caucasians, thus requiring a higher threshold of symptoms before seeking treatment. They also seem to maintain low expectations that treatment from health-care professionals would be helpful (Cuffe et al., 1995).

One study in the United Kingdom examined DUP in adolescents compared to adults as well as by ethnicity (Dominguez et al., 2013). It found that adolescents took twice as long as adults to seek first contact with mental health care. Possible reasons for this delay included the challenges of identifying early traces of psychotic illness in adolescents, the increased likelihood that youth were initially referred to school officials or the welfare system, and the simple fact that adolescents may be more hesitant to approach mental health professionals. Among the adolescents studied, those of African descent demonstrated a shorter DUP (99 days) when compared to their White (454 days) counterparts, but longer than that for Asian youth (28.5 days). Dominguez et al. felt that this discrepancy was due to the way that the youth presented to mental health services. For example, Asian adolescents often initially sought treatment at the Emergency Department, which led to faster assessment and connection with psychiatric services. The Black adolescents tended to be involuntarily committed or detained, usually resulting in quicker implementation of antipsychotic treatment.

Symptom Severity

It bears mentioning that when compared to non-minority Caucasian population of the same urban demographic, African American persons with schizophrenia were less symptomatic in the areas of hostility, asocial behavior, disorganization, mannerisms, bizarre behavior, anhedonia, and tension. It is possible that the social-stress hypothesis for the genesis of schizophrenia, which predicts greater intensity of symptoms in minority groups on the basis of disadvantaged social status, may be faulty. A replacement theory could be that there are certain protective factors of ethnic minority culture that facilitate a less malignant manifestation of schizophrenia. Two candidates underlying dynamics of this phenomenon are social competence and empathy, which appear to be statistically stronger in non-minority groups (Brekke & Barrio, 1997). This group concluded that culture should be integrated into biopsychosocial models of schizophrenia.

Diagnostic Challenges

Co-Morbid and Confounding Conditions

It can be quite challenging to diagnose COS and EOS. Though there can be premorbid and prodromal symptoms as described above, these are not sufficient to make the diagnosis of schizophrenia in a child or adolescent. Children can experience transient psychotic-like symptoms. Phenomena such as imaginary friends, magical thinking, or hearing one's name being called are not necessarily indicative of psychosis or mental illness. Hallucinations, delusions, and disordered thinking can occur in healthy children and usually resolve by 6 years of age (Driver et al., 2013).

In assessing for schizophrenia in youth, consideration must be given to possible medical conditions that could present with psychotic symptoms. Common ones include delirium, encephalitis, seizure disorders, tumors of the CNS, metabolic disorders, chromosomal anomalies, and neurodegenerative conditions (Driver et al., 2013). Autoimmune syndromes, endocrine dysfunction, and exposure to various toxic substances can all present with psychosis and abnormal behavior (American Academy of Child and Adolescent Psychiatry, 2013).

Many psychiatric conditions can also manifest with symptoms that overlap with schizophrenia. It is for this reason that reassessment over a longitudinal course is beneficial as an inaccurate diagnosis can lead to inappropriate treatment and faulty prognosis. Preschool children can often present with transient visual hallucinations in states of high stress or anxiety (Driver et al., 2013). Very frequently, severe depressive or manic episodes in adolescents are accompanied by hallucinations, delusions, and disordered thinking, which makes it challenging to discriminate from a schizophrenia process. Intense ruminations, as seen in obsessive–compulsive and other anxiety disorders, can appear psychotic as well. Likewise, dissociative and re-experiencing responses to trauma can seem pseudo-psychotic (American Academy of Child and Adolescent Psychiatry, 2013; American Psychiatric Association, 2013; Driver et al., 2013).

It has been established through research and clinical confirmation that exposure to abuse and neglect during childhood is linked with the later development of various affective, personality, dissociative, and substance use disorders. It is being suggested that child abuse be considered an influential factor in the manifestation of schizophrenia, particularly with regards to the presence of commentary and command auditory hallucinations. Furthermore, maltreatment correlates to higher levels of positive psychotic symptoms (Ramsay, Flanagan, Gantt, Broussard, & Compton, 2011).

ASD are often misdiagnosed as schizophrenia. A notable difference is that for those who go on to develop schizophrenia usually had a period of normal development, unlike the trajectory with ASD. More specifically, children with ASD demonstrate early and persistent difficulties in language, social communication, and repetitive behaviors, which are not usual for schizophrenia. However, there can be marked similarities in the premorbid presentation of COS and EOS with ASD, which some have postulated speak to a common pathway of neurological impairment. The diagnosis of schizophrenia, however, takes precedence, should an individual with ASD develop persistent psychosis (American Academy of Child and Adolescent Psychiatry, 2013).

Clinician Diagnostic Bias

As with adults, children and adolescents of African descent are more likely to receive a diagnosis of a schizophrenia spectrum disorder (SSD) (Nugent, Daniels, & Azur, 2012). It should be noted that aside from the potentially subjective clinical examination; rating scales and screening instruments designed to provide a more uniform and objective assessment often contain inherent racial biases. These could be due to content such as language or item-wording of the instrument or context where there could be multiple interpretations of what constitutes problematic behavior. Also, these tools tend to be validated for the norms of the majority culture which are often not as applicable to the minority cultures (Cuffe et al., 1995).

A good illustration of that latter point was demonstrated when the Child Behavior Check List (CBCL) nonclinical standardization samples were compared to a subset of heterogeneous middle school students without clinical pathology. A marked difference was noted particularly among the boys: those in the school sample received lower social competency and higher problem behavior scores—even when controlling for socioeconomic influences. The only dissimilarity between the boys of the nonclinical standardization group and the school set is that there was a greater proportion of minority (African American and Hispanic) boys in the school. The researchers found this observation surprising as the CBCL advertises negligible variance attributable to race (Sandberg, Meyer-Bahlburg, & Yager, 1991).

Response to Treatment

Treatment Setting

Caucasians are more likely to seek assistance from mental health professionals. African Americans demonstrate less utilization of mental health services and tend to seek non-professional support for their emotional problems through means of relatives and religious communities (Cuffe et al., 1995).

When pursuing professional treatment, African Americans tend to frequent community and hospital based practices more so than private office settings. Unfortunately, African Americans also lean towards seeking intervention primarily during times of crisis; warranting emergency department visits. This is problematic in the management of a chronic illness. As a group, African Americans engage in psychiatric treatment less often and of shorter duration than their Caucasian counterparts. These statements hold specifically true for African Americans with schizophrenia (Kuno & Rothbard, 2002).

Psychotherapeutic Interventions

The data suggest that African Americans are notably less likely to attend their first therapy session and often terminate treatment prematurely (Cuffe et al., 1995). Cognitive Behavioral Therapy has been shown to produce a greater reduction in positive symptoms over a 6–12 month period as compared to supportive psychotherapy. One study has demonstrated enhanced efficacy through the use of an adaptive model of Family-Focused Therapy targeted towards adolescents at risk for psychotic illness. This modality comprised of weekly sessions over 6 months and was designed to improve the individual's capacity to cope with stressors, facilitate behavioral activation, and promote interpersonal communication and problem solving; all the while maintaining the active involvement of the family. Results revealed a significant reduction in positive symptoms and improvement in psychosocial functioning (Miklowitz et al., 2014).

Psychotropic Medications

Antipsychotic medications are the mainstay of treatment for schizophrenia. Traditional, typical or first-generation antipsychotics are more likely as a group to produce significant, often permanent movement disorders as a side effect of their use. The newer counterparts—atypical or second-generation antipsychotics—are theoretically less likely to cause that specific category of adverse effect. African Americans with schizophrenia are more likely to receive typical antipsychotics. When atypical ones are prescribed, the dose is usually much higher when compared to Caucasian counterparts. African Americans also have a greater chance of receiving these medications as an injection or depot formulation than through oral administration (Kuno & Rothbard, 2002).

Longterm Outcome

Even after just one episode of psychosis, African Americans continue to experience more residual problems with cognition, negative symptoms, and daily functioning as compared to their Caucasian counterparts—with accounting for baseline clinical presentation and sociodemographic descriptors. Adherence to treatment seems to be the main contributing factor. Decreased access to treatment is one component. Another is possible lack of sufficient community support to engage in psychiatric treatment as some subsets of African American society still view mental illness as a character flaw. Along those lines persistent stigma can make it difficult for minority, particularly African American patients to appropriately engage in psychiatric care (Li, Eack, Montrose, Miewald, & Keshavan, 2011).

In a national sample of over 9000 youth between the ages of 5 and 17 years who utilized mental health services, those with a diagnosis of SSD were 31 % more likely to attempt suicide (Nugent et al., 2012).

Course of Illness

EOS is associated with a poorer outcome evidenced by persistent functional impairment and premature mortality (Lay, Blanz, Hartmann, & Schmidt, 2000). The majority of these individuals (over 60 %), regardless of current treatment interventions, will continue to experience poor outcomes. When compared with Adult Onset Schizophrenia, EOS and COS predict a more dire prognosis. It is postulated that a younger age of onset is followed by a more severe course of disease due to the impact on development and neurobiological maturation; rendering more lasting effects on cognition and psychosocial impairment (Clemmensen, Lammers Vernal, & Steinhausen, 2012).

Adherence to Treatment

In a two state review of medication adherence by Medicaid youth, one study found that Black children diagnosed with schizophrenia were significantly less likely to be consistent with prescribed medications compared to their White counterparts. While the analysis validated a discrepancy in adherence, no rationales were offered to explain the finding (Sleath et al., 2010).

Summary

Schizophrenia is a very complex entity. There are many factors that can influence its manifestation and presentation. Elements of the environment, genetics, family, community, and social construct can all help or hinder. The earlier the presentation, the more severe the course and prognosis.

In the context of the African American experience, schizophrenia has been used as pejorative label in the past—as a tool of misdiagnosis often bringing about negative consequences for the individual in question. New and emerging research is not only focusing on interventions and preventative models but also taking into account the cultural and ethnic complexities of the persons affected and the need for more thoughtful and targeted treatments and interventions.

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Learning Disabilities

16

Scott L. Graves Jr. and Kayla D. Nichols

Introduction

Historically the assessment of learning disabilities in African Americans has generated controversy. This controversy stems primarily from the definition and methodology utilized to diagnose individuals. While multiple criteria for learning disabilities exist (e.g., DSM-5, Individuals with Disabilities Education Act; American Psychiatric Association, 2013) as a majority of these definitions include the consideration of an individual's overall cognitive abilities in comparison to what is expected when provided with appropriate educational experiences. In this conceptualization, cognitive abilities are assessed with standardized measures of intelligence (e.g., Wechsler Intelligence Scale for Children, Wechsler Adult Intelligence Scale). There is a perception that standardized measures of intelligence are biased against African Americans and the use of these assessments has led to an overrepresentation of African Americans meeting learning disability criteria in special education classes. The criticism of this methodology has brought about the conceptualization of response to intervention (RTI) methodologies that are now endorsed by the United States Department of Education as viable methods of learning disabilities in school settings (Graves & Mitchell, 2011). Given the multiple methods that can be utilized to diagnose African American children and adults with a learning disability, the purpose of this chapter is to document the historical and legal context of assessment practices, current methodologies, and future research as applied to the diagnosis and treatment of African Americans diagnosed with learning disabilities.

Historical Context of Learning Disability Assessment

With the passage of the Education for All Handicapped Children Act (Pub. L. No. 94-142, 89 Stat. 773) passed in 1975, students were provided legal rights that protected them from being excluded from public education due to manifestations of their disabilities (Artiles, Kozleski, Trent, Osher, & Ortiz, 2010). While this groundbreaking legislation has created educational opportunities for numerous students, there has been a persistent concern regarding the accurate assessment of African American students in special education (Waitoller, Artiles, & Cheney, 2010). In fact, before special education was codified into law, Dunn (1968) expressed

S.L. Graves Jr. (✉) • K.D. Nichols
Department of Counseling, Psychology and Special Education, School of Education,
G3A Canevin Hall, Pittsburgh, PA 15282, USA
e-mail: gravess@duq.edu

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concern about the high representation of African American students in special classes.

Special classes were formed during the 1890s to address the needs of students with a range of abilities. An additional function after the *Brown vs. Board of Education* verdict was the use of these special education classes to exclude and segregate African American students from general education (Newell et al., 2010). As this concern persisted, the placement of African American students in special education garnered federal attention. The National Research Council examined the representation of racial/ethnic minorities in special education and produced a report on their findings and recommendations (Heller, Holtzman, & Messick, 1982). In their analysis, the committee found significant overrepresentation of African Americans in the learning disabilities category.

Since the recognition of African American disproportionality in special education, many researchers have worked to identify the cause(s) of disproportionality. Waitoller et al. (2010) conducted a review of research on disproportionality and found three broad categories of potential causes of disproportionality: (1) sociodemographic characteristics of the individual such as health, socioeconomic status, environment; (2) power and structural differences due to race (i.e., race relations); and (3) professional practices including assessment, bias, and other decision-making practices (Graves & Mitchell, 2011; Harry & Klinger, 2006). The research conducted on these reasons has yielded mixed results indicating a lack of consensus on what causes racial/ethnic minority disproportionality. Despite the mixed results on causes, educators have moved forward to address disproportionality, especially the overrepresentation of African Americans in the learning disabilities categories.

National Policy Efforts to Address Special Education Overrepresentation

The enactment of the *Education for All Handicapped Children Act* (EAHCA) of 1975 brought the first formalized attempt to improve the accuracy with which African American children were placed in special education. The EAHCA included provisions for ensuring due process, administering nondiscriminatory assessment, and testing in a child's native language (Reschly, 2000). By 1982, the National Research Council report was published which recommended the use of evidence-based interventions before any Black student could be referred for a special education evaluation in order to prevent and/or reduce the number of Black students referred for special education (Heller et al., 1982). This recommendation marked a shift from focusing on special education to a focus on general education. That is, educators must ensure that African American students are receiving adequate instruction and supports in general education before being referred for a special education evaluation.

In 1990, the Education for All Handicapped Children was reauthorized and renamed the Individuals with Disabilities Education Act (IDEA). However, it was not until the reauthorization of IDEA in 1997 that specific changes were made to the legislation that addressed the number of African American students in special education. Specifically, states were required to collect special education data disaggregated by race/ethnicity. Upon collecting these data, states could determine whether *significant* disproportionality was occurring in placement, settings, and/or discipline. If significant disproportionality was found, states were allowed to use up to 15 % of their Federal education funds for early intervention services. However, *significant disproportionality* was not defined. Moreover, once states identified significant disproportionality there was no guidance as to the strategies that should be used to address the problem. While these provisions have been helpful in collecting data and, to some extent, identifying disproportionality, African Americans have continued to be overrepresented in the learning disabilities category (Losen & Orfield, 2002). In the 2004 reauthorization of IDEA, the use of an RTI model was added, in part, to address disproportionate representation. As documented by Fuchs, Fuchs, and Speece (2002), RTI has the potential to reduce the number of African American children misidentified and placed in special education, which was consistent with the focus on general education suggested by the National Research Council in 1982 (Heller et al., 1982) and 2002 (Donovan & Cross, 2002).

While all of these legislative and policy efforts have been significant, African American overrepresentation in the categories of emotional disturbance, intellectual disabilities, and learning disabilities remain significant almost 42 years after the publication of Dunn's (1968) article. According to the *Thirtieth Annual Report to Congress on the Implementation of IDEA*, African American and Hispanic students were 1.46 and 1.19 times more likely to be placed in the specific learning disability (SLD) category than all other racial/ethnic groups combined, respectively. Furthermore, Black students were 2.75 and 2.28 times more likely to be placed in the intellectual disability category and emotional disturbance (ED) category, respectively (U.S. Department of Education, 2011).

Based on the most recent 2014 special education data, African American students are at higher risk for placement in the SLD category than their representation in the general category. As documented in Table 16.1, African Americans are diagnosed with learning disabilities at greater rates than their representation in the general population in 47 states (U.S. Department of Education, 2014). The states in which African American students are not overrepresented do not have a significant portion of African American children in their states (e.g., Maine, Montana, and South Dakota).

Diagnosis

As mentioned previously, there are several methods and criteria utilized to assess for learning disabilities depending on the setting. The most common settings that necessitate the need for the assessment of learning disabilities are schools and medical facilities.

Table 16.1 African American disproportionality and learning disabilities

State	% of African American	% of African American diagnosed with LD	Percent difference
Alabama	34.3	45.2	10.9
Alaska	3.7	5.3	1.6
Arizona	5.4	6.6	1.2
Arkansas	21.2	25.5	4.3
California	6.6	10.9	4.4
Colorado	4.8	7.3	2.5
Connecticut	13.0	17.0	4.0
Delaware	31.9	44.8	12.9
Florida	22.8	25.6	2.8
Georgia	37.1	40.1	3
Hawaii	2.4	2.8	0.4
Idaho	1.0	1.4	0.4
Illinois	18.1	25.2	7.1
Indiana	12.1	13.9	1.8
Iowa	5.1	8.9	3.8
Kansas	7.4	10.9	3.5
Kentucky	10.7	12.4	1.7
Louisiana	44.9	55.9	11.0
Maine	2.9	2.9	–
Maryland	35.3	45.5	10.2
Massachusetts	8.3	10.9	2.6
Michigan	18.8	23.8	5.0
Minnesota	9.2	14.7	5.5
Mississippi	49.5	53.2	3.7
Missouri	16.8	20.8	4.0
Montana	1.0	1.0	–
Nebraska	6.6	9.7	3.1
Nevada	9.7	15.8	6.1
New Hampshire	1.9	2.4	0.5
New Jersey	16.2	19.7	3.5
New Mexico	2.1	2.5	0.4
New York	18.7	24.0	5.3
North Carolina	26.4	32.8	6.4
North Dakota	2.6	3.1	0.5
Ohio	16.1	19.6	3.5
Oklahoma	9.9	13.2	3.3
Oregon	2.5	3.6	1.1
Pennsylvania	15.1	19.2	4.1
Rhode Island	8.2	10.8	2.6
South Carolina	35.4	45.1	9.7
South Dakota	2.6	2.5	–0.1

(continued)

Table 16.1 (continued)

State	% of African American	% of African American diagnosed with LD	Percent difference
Tennessee	23.4	29.5	6.1
Texas	12.8	18.8	6.0
Utah	1.3	1.9	0.6
Vermont	1.9	2.0	0.1
Virginia	23.5	31.6	8.1
Washington	4.6	7.2	2.6
West Virginia	5.2	5.5	0.3
Wisconsin	9.7	13.7	4.0
Wyoming	1.1	1.5	0.4

U.S. Department of Education (2014)

Psychiatric Diagnosis (DSM-5) In the medical setting, the Diagnostic and Statistical Manual is the gold standard of guidelines by which professionals base their diagnosis. In the fourth edition of the DSM, the diagnostic category of Learning Disorders was placed under the section titled *Usually First Diagnosed in Infancy, Childhood or Adolescence*. In addition, the DSM-IV-TR placed the Learning Disability into one of three categories—Specific Reading Disorder, Specific Math Disorder, and Disorders of Written Expression. The Fifth edition of the DSM placed the renamed diagnostic category of Specific Learning Disorder under the section titled *Neurodevelopmental Disorders*. Given the fact that substantial overlap occurs among the three categories, the DSM-5 has revised the diagnosis into a single category titled: *Specific Learning Disorder* (APA, 2013). This adjustment now allows mental health professionals to specify the area of the disorder and document the severity (e.g., mild, moderate, or severe). This new criterion is evident in the updated definition of a *Specific Learning Disorder*:

> Specific learning disorder is a neurodevelopmental disorder with a biological origin that is the basis for abnormalities at a cognitive level that are associated with the behavioral signs of the disorder. The biological origin includes an interaction of genetic, epigenetic, and environmental factors, which affect the brain's ability to perceive or process verbal or non-verbal information efficiently and accurately (DSM-5, p. 68)

To make a formal diagnosis of a Specific Learning Disorder based on the DSM-5 criteria, mental health professionals must identify the four diagnostic criteria that need to be met for the diagnosis of LD:

1. Difficulties learning and using academic skills, as indicated by the presence of at least one of the following symptoms that have persisted for at least 6 months, despite the provision of interventions that target those difficulties:
   (a) Inaccurate or slow and effortful word reading (e.g., reads single words aloud incorrectly or slowly and hesitantly, frequently guesses words, has difficulty sounding out words).
   (b) Difficulty understanding the meaning of what is read (e.g., may read text accurately but not understand the sequence, relationships, inferences, or deeper meanings of what is read).
   (c) Difficulties with spelling (e.g., may add, omit, or substitute vowels or consonants).
   (d) Difficulties with written expression (e.g., makes multiple grammatical or punctuation errors within sentences; employs poor paragraph organization; written expression of ideas lacks clarity).
   (e) Difficulties mastering number sense, number facts, or calculation (e.g., has poor understanding of numbers, their magnitude, and relationships; counts on fingers to add single-digit numbers instead of recalling the math fact as peers do; gets lost in the midst of arithmetic computation and may switch procedures).
   (f) Difficulties with mathematical reasoning (e.g., has severe difficulty applying mathematical concepts, facts, or procedures to solve quantitative problems).
2. The affected academic skills are substantially and quantifiably below those expected for the individual's chronological age, and cause significant interference with academic or occupational performance, or with activities of daily living, as confirmed by individually administered standardized achievement measures and

comprehensive clinical assessment. For individuals aged 17 years and older, a documented history of impairing learning difficulties may be substituted for the standardized assessment.
3. The learning difficulties begin during school-age years but may not become fully manifest until the demands for those affected academic skills exceed the individual's limited capacities (e.g., as in timed tests, reading or writing lengthy complex reports for a tight deadline, excessively heavy academic loads).
4. The learning difficulties are not better accounted for by intellectual disabilities, uncorrected visual or auditory acuity, other mental or neurological disorders, psychosocial adversity, lack of proficiency in the language or academic instruction, or inadequate educational instruction (DSM-5, pp. 66–67)

In the evaluation of an individual for an LD diagnosis, there is an examination and synthesis of information pertaining to development, medical and family history, family circumstances, and educational reports, in addition to the administration of standardized psychoeducational assessment tools. After a complete psychoeducational assessment has been completed the following codes are used to make a formal diagnosis:

Specify if:
315.00 (F81.0) With impairment in reading:
Word reading accuracy
Reading rate or fluency
Reading comprehension

Note: *Dyslexia* is an alternative term used to refer to a pattern of learning difficulties characterized by problems with accurate or fluent word recognition, poor decoding, and poor spelling abilities. If dyslexia is used to specify this particular pattern of difficulties, it is important also to specify any additional difficulties that are present, such as difficulties with reading comprehension or math reasoning.

315.2 (F81.81) With impairment in written expression:
Spelling accuracy
Grammar and punctuation accuracy
Clarity or organization of written expression

315.1 (F81.2) With impairment in mathematics:
Number sense
Memorization of arithmetic facts
Accurate or fluent calculation
Accurate math reasoning

Note: *Dyscalculia* is an alternative term used to refer to a pattern of difficulties characterized by problems processing numerical information, learning arithmetic facts, and performing accurate or fluent calculations. If dyscalculia is used to specify this particular pattern of mathematic difficulties, it is important also to specify any additional difficulties that are present, such as difficulties with math reasoning or word reasoning accuracy.

Specify current severity:

Mild: Some difficulties learning skills in one or two academic domains, but of mild enough severity that the individual may be able to compensate or function well when provided with appropriate accommodations or support services, especially during the school year.

Moderate: Marked difficulties learning skills in one or more academic domains, so that the individual is unlikely to become proficient without some intervals of intensive and specialized teaching during the school years. Some accommodations or supportive services at least part of the day at school, in the workplace, or at home may be needed to complete activities accurately and efficiently.

Severe: Severe difficulties learning skills, affecting several academic domains, so that the individual is unlikely to learn those skills without ongoing intensive individualized and specialized teaching for most of the school years. Even with an array of appropriate accommodations or services at home, at school, or in the workplace, the individual may not be able to complete all activities efficiently (DSM-5, pp. 67–68)

School LD Diagnosis School-based criteria for learning disability classification exist as well. There are two primary models proposed for the identification of individuals with Learning Disorders: (1) aptitude-achievement discrepancy and (2) RTI. Each of these modalities is described in detail here.

Aptitude-Achievement Discrepancy The most common approach to determining an aptitude-achievement discrepancy is the identification of an inconsistency between the results of a standardized measure of intelligence (i.e., IQ test) and a test of achievement. This is generally done by examining the discrepancy between a composite measure of IQ and academic achievement as measured by a standardized battery, such as the Woodcock Johnson Achievement (WJ-ACH) or the Wechsler Individual Achievement Test (WIAT). The discrepancy approach is based on two features: intellectual ability and academic achievement. To determine the existence of a "severe discrepancy," both the educational and clinical communities generally require the administration of standardized ability (IQ) tests and academic achievement tests, followed by a comparison of the standard scores of the tests. If this comparison shows that the student's "achievement" is well below his or her "ability" in at least one area (such as reading or mathematics), then the student can be diagnosed with a learning disorder (Dombrowski, Kamphaus, & Reynolds, 2004).

Issues with Discrepancy Unfortunately, the discrepancy model represents an assessment modality that has not demonstrated adequate validity and reliability. Frequently referred to as the "wait-to-fail model," the ability-achievement discrepancy paradigm makes it difficult to identify children in early elementary school because students typically do not demonstrate a discrepancy in their intellectual functioning and academic achievement prior to 3rd grade (Haager, 2007; White, Polly, & Audette, 2012). In addition, research has demonstrated that the discrepancy model does not provide assistance to children who are struggling academically, but do not manifest a discrepancy between ability and achievement. The typical intellectual profile of these children includes scores that are in the low average range (e.g., 75–85) on intelligence and academic test batteries. While these children may need learning supports, they do not qualify based on the discrepancy criteria. As a result of the documented ineffectiveness of this model, schools now have the option of utilizing an RTI framework (Ciolfi & Ryan, 2011; Graves & Mitchell, 2011).

Response to Intervention With the passage of the current version of the Individuals with Disabilities Education Act, states now have the option of discontinuing the use of the Intelligence/Achievement test discrepancy model that has served as the dominant special education assessment framework. Instead, states are allowed to use an RTI assessment model. In particular, the IDEA states:

> A local educational agency shall not be required to take into consideration whether a child has a severe discrepancy between achievement and intellectual ability in oral expression, basic reading skill, reading comprehension, mathematical calculation, or mathematical reasoning. [Additionally,] when determining whether a child has a specific learning disability, a local educational agency may use a process that determines if the child responds to scientific, research-based intervention (IDEA, 2004 Section 614(b)6)

This procedural change has resulted in many states examining their standards for learning disabilities assessment and making changes to their eligibility criteria. Currently, 14 states have forbidden the use of intelligence testing in the identification of a learning disability with several others allowing the use of a hybrid model of intelligence test use or RTI (Harr-Robins, Shambaugh, & Parrish, 2009; Sawyer, Holland, & Detgen, 2008; Zirkel & Krohn, 2008). While these changes may be a step in the right direction, there are many unknowns regarding the appropriateness of an RTI assessment framework.

Issues with Response to Intervention While there are numerous conceptualizations of RTI, its premise is based on an adequate or inadequate change in a student's academic performance in relation to implementing empirically based interventions (Gresham, 2002; Proctor, Graves, & Esch, 2012). Touted benefits of shifting to an intervention-based assessment model include the early identification of academic difficulties, framing student issues from a risk rather than deficit model, and the reduction of identification biases in the special education process (Newell & Kratochwill, 2006). While the call for discontinued use of intelligence tests with African American students may be coming to fruition, there are also significant issues with the RTI alternative. Advocates of the intervention-based assessment approach to identifying children with learning disabilities have suggested it will likely be fairer than IQ-discrepancy models to students from diverse backgrounds because it involves less reliance on standardized testing (Newell & Kratochwill, 2006). While this may be the case, empirically based interventions rarely include African American children in their samples (Lindo, 2006). In particular, there is a significant gap in the treatment and intervention research regarding the development and adaptation of treatments with ethnically diverse populations (Bernal & Scharró-del-Río 2001; Council of National Psychological Associations for the Advancement of Ethnic Minority Interests, 2003; Miranda, Nakamura, & Bernal, 2003).

Although new methodologies such as RTI are now allowed, there is limited evidence that RTI methods improve disproportionality or improve special education rates. In a comprehensive review of studies that focused on special education referral and/or placement rates and RTI, the National Center for Learning Disabilities/RTI Action Network found that overall referral and placement rates stayed fairly constant, with very few studies showing decreases (Hughes & Dexter, 2015). While emerging data indicate that RTI may not lead to increased special education placements, it is hard to draw firm conclusions given that a majority of studies did not clearly identify how they identified children who did not respond to interventions, the need for more information on the procedures used to identify children for placement, and the lack of African Americans and Latino in the samples (with the exception of Marston, Muyskens, Lau, & Canter, 2003). Consequently, these authors recommended that increased longitudinal research is needed to answer the question regarding the impact of RTI on special education placement rates.

Empirical Evidence

Several meta-analyses have reported on the efficacy of interventions for students with learning disabilities. In the most comprehensive meta-analysis to date, Swanson, Hoskyn, and Lee (1999) reviewed and analyzed 180 intervention studies over a 30-year period. Their findings suggested moderate to high effects across studies (0.79) and higher effect sizes for interventions conducted in resource room settings (0.86) than those in general education classes (0.48). In another meta-analysis, Wanzek and Vaughn (2007) synthesized studies of extensive reading interventions with reported effect sizes in the moderate to large range. Effect sizes were usually larger if the study (a) involved students in kindergarten and grade 1 as opposed to grades 2–5, (b) used a comprehensive reading program, and (c) delivered the intervention one-on-one or in small groups.

In addition to meta-analytic research, there are several empirically validated interventions for African American children diagnosed with learning disabilities. For instance, research by Taylor, Alber, and Walker (2002) included African American elementary school students who were receiving special education services. Their study examined effects of story mapping, a self-questioning strategy, and a no intervention condition on answering literal and inferential comprehension questions. The story mapping condition consisted of having the students record details about critical elements (e.g., characters, settings, plot, problem, resolution) of a story on a graphic organizer. The self-questioning condition involved having the students read a passage and stop at the marked stopping points and ask themselves ten generic questions that were printed on a laminated card. Students were also required to record their responses to the questions on an audio recorder. Students performed better under both the story mapping and self-questioning strategy intervention conditions than in the no intervention condition.

Relatedly, Gibson, Cartledge, Keyes, and Yawn's (2014) study is an example of implementing a multiple probe design to demonstrate an increase in academic performance. These researchers implemented this design with eight African American first graders who struggled with reading skills. In their study, this design was used to examine the effectiveness of *Read Naturally Software Edition* program on the students' oral reading fluency and word retell fluency on both training and generalization passages. Findings revealed that all students improved their performance on those reading measures.

In another study, Joseph (2002) employed a multiple baseline design across participants to examine the combined effects of word boxes and word sorts, two techniques targeted to help children develop phonological skills. The participants in this study included two African American children who improved on their word recognition and spelling performance when these phonological techniques were implemented.

Recommendations for Future Research and Clinical Care

With the reauthorization of the Individuals with Disabilities Education Act (Individuals with Disabilities Education Act [IDEA], 2004) a significant change in special education eligibility criteria was established. This legislation allows school psychologists the option of using an intervention-based assessment framework instead of the prevalent discrepancy model (i.e., utilizing standardized intelligence and achievement tests) for identifying students for special education. While there are numerous conceptualizations of RTI, its premise is based on an adequate or inadequate change in a student's academic performance (Gresham, 2002). Touted benefits of shifting to an intervention-based assessment model include the early identification of academic/behavior problems, framing student difficulties from a risk rather than deficit model, and the reduction of identification biases in the special education process (Graves & Mitchell, 2011; Harris-Murri, King, & Rostenburg, 2006).

Significant research needs to be undertaken to understand why there has been a shift towards the increased numbers of African American children placed in the learning disability category in comparison to their decreased enrollment in the intellectual disabilities category. Scholars (e.g., Baglieri & Moses, 2010; Losen & Orfield, 2002) have noted that biases include cultural and racial bias, learning disability identification, and placement for African American students. African American students' overrepresentation in special education suggests that there continues to be "systemic problems of inequity, discrimination, and marginalization within education" (Sullivan et al., 2009, p. 15).

In sum, African American students who are diagnosed with learning disabilities often encounter the structural inequalities which results in high drop-out rates, limited preparation for college admissions and employment, as well as increased chances of incarceration (Blanchett, 2010; McKinney, Bartholomew, & Gray, 2010; Pitre, 2009; Sullivan & Artiles, 2011). Research indicates that compared to students without disabilities, students served under the SLD category have much greater difficulty finding employment after high school and fewer postsecondary education opportunities (Institute of Education Sciences, 2009; Kortering, Braziel, & McClannon, 2010). As a result of these dismal outcomes, understanding the methods used to diagnose African Americans with learning disabilities are essential.

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Autism Spectrum Disorders

17

Donald P. Oswald and Shannon M. Haworth

Introduction

Race/ethnicity differences in identification rates and access to services for children with disabilities have long been an issue of concern among child advocates. While the focus of that concern has varied depending on the services setting, disability category, and race/ethnicity group, there has been a persistent impression that minority group children in the USA, particularly African American children, are not served fairly, equally, or adequately by the child service system.

Whether with respect to special education (e.g., Tincani, Travers, & Boutot, 2009), physical health (e.g., Mehta, Lee, & Ylitalo, 2013), or mental health (e.g., Shattuck, Wagner, Narendorf, Sterzing, & Hensley, 2011), scholars have sought to understand the nature and extent of differences in the system for African American children and families. This chapter explores the literature that addresses the diagnosis and treatment of African American children with Autism Spectrum Disorder (ASD). A review of the literature supports the conclusion that there are barriers to autism diagnosis and treatment for African American children, with considerable potential for disparities of health and health care outcomes. Disparities in diagnosis and treatment may be associated with referral bias, the cost of treatment, insurance status and coverage, local special education resources, family resources, institutionalized discrimination, cultural insensitivity, or other factors.

Prevalence: Difference or Disparity?

In recent years, reports have varied considerably with respect to differential prevalence rates of ASD across race/ethnicity groups and interpreting these prevalence data is not entirely straightforward. Two fundamental issues are essential to understanding the literature summarized below.

First is the distinction between surveillance samples and samples based on clinical populations. The most important difference between these types of samples is that those based on clinical populations are likely to be skewed to the extent that there are differences in access to care or utilization of services. Thus, if one race/ethnicity subgroup has relatively less access or utilization, that subgroup is under-represented in samples based on clinical populations and prevalence estimates will be correspondingly skewed.

D.P. Oswald (✉)
Partnership for People with Disabilities, Virginia Commonwealth University, 1000 E. Marshall St, P. O. Box 980405, Richmond, VA 23298, USA
e-mail: doswald@vcu.edu

S.M. Haworth
Association for University Centers on Disabilities, 6429 Rock Forest Dr., Apt. 407, Bethesda, MD 20817, USA

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Surveillance methods are commonly used in epidemiological studies and do “not depend on family or professional reporting of an existing ASD diagnosis or classification to determine ASD case status” but involve “screening and abstracting records at multiple data sources in the community” (p. 3; Centers for Disease Control and Prevention [CDC], 2014). Samples based on surveillance methods minimize differences in access and utilization, though they do not eliminate those differences entirely. For the purpose of understanding true prevalence differences, surveillance samples provide more useful and interpretable estimates and will be emphasized, where they are available. Mandell et al. (2009) indicated that Black children found to have ASD through surveillance methods were significantly less likely to have the diagnosis documented in their health or education record, compared to White children, suggesting that the method picks up children who are missed in the usual clinical/educational identification methods.

Second, subpopulations may differ in prevalence due to other factors that are not inherent to the defining characteristic of the subgroup, but that play a causal or mediating role in those differences. Raw prevalence estimates do not take into account the effects of such factors. By convention, disparate raw prevalence figures are designated “differences” (Smedley, Stith, & Nelson, 2003).

Prevalence estimates that statistically remove the effects of those other variables are considered adjusted rates and differences in adjusted rates are, by convention, designated disparities. To illustrate, raw prevalence rates for ASD in African American children may vary considerably from the corresponding raw rates for White children; this variation would be considered evidence for a “difference” across groups. However, when one statistically removes the effect of socioeconomic status, for example, one can derive adjusted prevalence rates which come closer to what the rates would be if the groups did not differ on SES. If those adjusted rates did not differ significantly across race/ethnicity groups, there would be no “disparity” despite the raw “difference.” In the discussion that follows we seek to follow the conventional usage.

Prevalence Differences

Autism prevalence rates derived from early (1996) surveillance data from a single site were found to be “remarkably similar when examined by race” (Yeargin-Allsopp et al., 2003, p. 51). However, the most recent data available for the USA(from the year 2010 surveillance and based on 11 sites) indicated that the prevalence of ASD among African American children was 12.3 per 1000 while among White children the rate was 15.8 per 1000, almost 30 % higher (CDC, 2014).

An example of a similar finding, based on special education identification data from 2006 to 2007, indicated that African American students were substantially under-represented in the autism category (OR = 0.70). Although earlier (1998–1999) African American students were more likely than White students to be identified with autism, and although the rate of autism identification in African American students has steadily climbed in the intervening years, the White rate has grown faster, resulting in the observed current under-representation (Travers, Tincani, & Krezmien, 2011). There are other indications that the discrepancy has widened in recent years. The marked increase between 1997 and 2008 in parent-report of ASD among White children has not been matched for non-Hispanic Blacks (Boyle et al., 2011).

Other reports (e.g., Becerra et al., 2014; Bhasin & Schendel, 2007; Boyle et al., 2011; Thomas et al., 2011) have supported the conclusion that there are prevalence differences for ASD across race/ethnicity subgroups, such that African American children appear to have lower rates of ASD, compared to their White counterparts, although some failed to find such differences (Fombonne, 2007).

Prevalence Disparities

Data regarding disparities in ASD prevalence has been more complicated. In some cases, statistically adjusting for family demographics has yielded prevalence rates that were not statistically different across race/ethnicity groups. In a study of the 2000 and 2002 CDC surveillance samples for a single site, for example, Thomas et al. (2011) found that ASD prevalence rates were higher for children living in wealthier census tracts, but there were no race/ethnicity difference in prevalence once SES was accounted for.

Bhasin and Schendel (2007) found that in a Metropolitan Atlanta surveillance sample, Black children were more than twice as likely as Whites to present with ASD in a multivariate model that included maternal education and family income. However, this over-representation was evident only in the portion of the ASD sample that also displayed intellectual disability; among children with ASD but no intellectual disability, there was no disparity. A recent study of children in Los Angeles County clinical sample found that, despite substantially lower raw prevalence rates, US-born Black children were at increased risk for a diagnosis of autism once a range of individual, family, and system factors were accounted for, and the risk was even higher for foreign-born Blacks (Becerra et al., 2014). These data raise the hypothesis that low SES tends to depress ASD prevalence rates. When the effect of SES is statistically controlled, African American children appear to have higher ASD prevalence rates, at least among the subgroup of children with ASD and co-occurring intellectual disability.

While the above studies tend to indicate disparately higher adjusted prevalence rates of ASD among African Americans, Kogan et al. (2009) reported that, based on parent-report, African Americans were significantly *less* likely to have ASD when other characteristics including SES were accounted for. Similarly, Mehta et al. (2013) found that in 2009, compared to White children, Black children were less likely to be diagnosed with ASD (according to parent-report). It is of historical interest that the discrepancy in parent-reported ASD prevalence rates between White and African American children has reversed; in the late 1990s, Black children were found to be nearly 1.7 times *more* likely than White children to be diagnosed with ASD (Mehta et al., 2013).

In sum, there are indications that there may be true disparities in prevalence of ASD between Black and White populations, i.e., prevalence differences that cannot be attributed to other individual, family, or community factors. The bulk of these data suggest that African American children may be at increased risk for displaying ASD. Nonetheless, while prevalence differences across race/ethnicity groups may be statistically accounted for, or even reversed, by adjusting for SES, the fact remains that African American children are disproportionately affected by poverty and that they are therefore at increased risk for a missed diagnosis of ASD.

Proposed Explanations for Disparities in Diagnosis

The causes of prevalence rate differences across race/ethnicity groups are unclear, in part no doubt, because the etiology of ASD is unknown. It is possible that the true prevalence of ASD varies somewhat across race/ethnicity/cultural groups, as it does for some physical conditions. Characteristics associated with autism are endorsed more frequently in some Eastern cultures (India, Malaysia), compared to Western cultures (UK; Freeth, Sheppard, Ramachandran, & Milne, 2013). However, this finding is somewhat at odds with the common perception of *lower* rates of disability generally among Asian Americans in the USA (cf., Coutinho, Oswald, & Best, 2002). And, indeed, early studies indicated comparable rates of autism around the world (Fombonne, 2007).

Literature addressing apparent under-representation of ASD in African American children has considered factors such as the effects of poverty, clinician bias, cultural differences in stigma associated with developmental disabilities, and family help-seeking; it is to those factors that we now turn.

Socioeconomic Status As noted above, family SES appears to be an important correlate of ASD prevalence rates, with higher SES predicting increased prevalence. There are well-established race/ethnicity group differences in socioeconomic status and early evidence suggested that autism was less likely to be perceived by clinicians in lower SES children (Cuccaro et al., 1996). Poverty is typically associated with increased risk for disease and disability, and the hypothesis that lower SES is associated with lower prevalence rates is generally attributed to differences in access to care (e.g., Thomas et al., 2011). However, Durkin et al. (2010) suggested that while "biased ascertainment [might result] from those with higher SES having greater access to diagnostic services, it is possible that 'diagnostic bias' on the part of clinicians might contribute to ascertainment bias" (p. e11551), i.e., increased likelihood of assigning autism diagnosis in children from higher SES families.

Durkin et al. (2010) also speculated that the excess risk for high SES children might be related to "physical or social environmental factors to which children living in more advantaged environments might have higher exposures, to immunological factors (such as that suggested by the "hygiene hypothesis" . . .) or other biological factors (for example, those associated with parental age)" (p. e11551). However, there is no consensus that ASD actually occurs less frequently in low-income and African American populations, as suggested by the raw prevalence figures, and there are important reasons to further investigate whether the under-representation of African Americans sometimes reported in the literature, particularly in clinical samples, is instead a result of under-diagnosis.

Differences in prevalence rates might arise because the clinical characterization of a condition is often based on how the condition presents in majority subgroups. Mandell and Novak (2005) suggested that there may be "cultural differences in the presentation of the symptoms of ASD due to genetic or environmental factors" (p. 111) but acknowledged that there are few data available to support or refute the suggestion. If such differences exist, they may contribute to misdiagnosis, or missed diagnoses, in African American children.

Cultural and Family Characteristics Differences in cultural and family characteristics may influence the likelihood that parents will seek, or accept, a diagnosis of ASD. The threshold of concern for features of autism, particularly in individuals with little or no intellectual impairment, is almost certainly different across families and that variation may be associated with race and culture. More explicitly, differences in expectations with respect to the variety of behavioral presentations that are perceived as within the typical range (i.e., that are judged to be acceptable or "normal") might cause some parents to delay or defer diagnostic evaluation. Lau et al. (2004) found that African American parents were less likely than white parents to endorse behavior problems in their children. If African American parents are similarly more accepting of "borderline" presentations of ASD, less prototypical or less severely affected children may go undiagnosed; this hypothesis is consistent with the data cited above regarding race group differences in intellectual impairment in ASD.

Culture also affects the expectations of children's behavior and their overall development (Liptak et al., 2008). Perhaps some cultures expect or are more tolerant of a wider range of behaviors from children and are less concerned about developmental disabilities. African American toddlers diagnosed with ASD are found to be more likely to display aggressive and destructive behaviors, compared to their White counterparts (Horovitz, Matson, Rieske, Kozlowski, & Sipes, 2011). Such a difference may reflect differences in families' willingness to accept less-troubling manifestations of disability; perhaps it is not until children's behavior becomes dangerous that some parents seek diagnosis and intervention.

To the extent that such a dynamic occurs in families of children with ASD, even the surveillance-based prevalence data cited above may not accurately reflect differences across race/ethnicity groups in the rate of occurrence of ASD. Surveillance-based methods may also be affected by the rate of detection in that, while they do not depend on the existence of a documented diagnosis, they are dependent on the quality of data in existing medical (and often, educational) records (CDC, 2014). It is possible that individuals with less marked impairment or less prototypical presentations will still be overlooked by such an approach.

One bit of evidence supporting this concern was the finding that the proportion of children with ASD who were also classified in the range of intellectual disability differed by race/ethnicity; nearly half of the non-Hispanic black children with ASD were found to have co-occurring intellectual disability, compared to only one-fourth of non-Hispanic white children (CDC, 2014). A disproportionate amount of the increase in individuals with ASD in recent years has been among those without intellectual disability (CDC, 2012), raising the question of whether those without intellectual disability in the African American population have been overlooked.

Stigma Concern about the stigma of an ASD diagnosis may be heightened among African American parents for a variety of cultural and historical reasons. African Americans who used mental health services have been found to be less likely than whites to have positive attitudes toward their friends knowing they had sought help (Diala et al., 2000). Such concern, if it extends to attitudes about developmental disabilities, would be likely to cause parents to be cautious in seeking help or in pursuing and accepting a diagnosis of ASD.

Clinician Bias Clinician bias has been suggested as an important contributor to possible under-diagnosis of ASD in African American children. “Physicians may . . . more quickly discount the concerns of African American parents than they do the concerns of white parents related to their children’s developmental delays, or not elicit those concerns in the first place” (Mandell & Novak, 2005, p. 112). A Dutch study found that clinical vignettes of European majority cases were more likely to lead pediatricians to suggest autism than were vignettes of non-European minority cases, although the effect disappeared when they were specifically asked to rate the likelihood of ASD (Begeer, El Bouk, Terwogt, & Kout, 2009). These authors concluded “pediatricians may be inclined to attribute social and communicative problems of children from non-European minority groups to their ethnic origin, while they would possibly attribute the same problems to autistic disorders in children from majority groups” (p. 146). Similarly, Feinberg, Silverstein, Donahue, and Bliss (2011) speculated that “it is possible that clinicians, who play a major role in identifying children with developmental delay and referral to EI services, are less likely to identify such delays in black children” (p. 289).

While not specific to autism, van Ryn and Fu (2003) proposed a mechanism by which health and human service providers might influence race/ethnicity disparities in treatment. The model includes consideration of help-seeker behavior, cognition, and affect, as well as provider beliefs about the help-seeker, provider interpretation of information or symptoms, and provider interpersonal behavior, as those factors influence professional decision-making regarding diagnosis and treatment. The processes involved in diagnostic determination and treatment recommendation are more complex than is generally appreciated and there is substantial opportunity for those processes to be significantly affected by individual differences in help-seekers and clinicians.

Other Systemic Issues A referral for diagnostic assessment often begins in the primary care office. African American children are less likely to have a usual source of care, compared to White children (USDHHS, 2013) raising the possibility that some children with ASD are missed due to the lack of a primary care referral. It has also been suggested that professionals may screen for ASD less often in African American children due to different expectations about treatment and service needs by race (Mandell, Listerud, Levy, & Pinto-Martin, 2002).

There is some evidence that African American families are substantially more likely to no-show for an initial appointment to a pediatric outpatient autism clinic (Kalb et al., 2012), a phenomenon that could be related to their differing experience of primary care (Stevens & Shi, 2003). The failure to keep an initial appointment is likely to contribute to delayed or absence of diagnosis and thus may be one of the intervening factors contributing to lower prevalence rates for ASD in African American children. The model yielding this result did not include a measure of SES; thus, the question of whether this difference is due to poverty, rather than race, is unresolved. Missing an initial appointment for evaluation increases the potential for delay of an autism diagnosis, as well as delays in intervention (Kalb et al., 2012).

There is evidence that the rate of identification of autism by schools is associated with community SES; school divisions with a higher proportion of economically disadvantaged students had lower rates of identification of autism (Palmer, Blanchard, Jean, & Mandell, 2005). Parsing this effect between family and community factors is difficult, but the end result is that children with ASD in poorer communities are more likely to be overlooked or misdiagnosed.

Differences across states in the rate of autism identification by schools has been found to be associated with education-related spending, the number of pediatricians in the state, and the number of school-based health centers in the state (Mandell & Palmer, 2005). While this report did not examine race/ethnicity differences, it would not be surprising to find that access to the resources they explored is, on average, diminished for African American children.

Delays in Diagnosis A delay in the diagnosis of ASD affects prevalence rates by undercounting young children. A further effect of delayed diagnosis, however, is that with increasing age often comes increasing co-occurring emotional and behavioral concerns which may mask ASD symptoms or may take precedence in terms of treatment.

In the early years of the autism explosion, African American children with ASD were found to be diagnosed later than their White counterparts; average age of diagnosis in one 1999 sample was 7.9 years for African American children, compared to 6.3 years for White children (Mandell et al., 2002). The difference was not explained by age of entry into the mental health system; while White children did enter the system earlier, once in treatment, “African American children required three times the number of visits over a period three times as long as white children before receiving an autistic disorder diagnosis” (p. 1450).

This delay in diagnosis for African American children persisted in a sample of children given an ASD diagnosis between the years 2003 and 2010. In that sample, African American children were more likely to be diagnosed with an ASD after age 4 years, compared to Caucasian children. This association was observed, as well, in multivariate models that included individual characteristics and demographic factors that might be expected to influence age of diagnosis (Valicenti-McDermott, Hottinger, Seijo, & Shulman, 2012). Other differences have also been noted in the pathway leading to a diagnosis of ASD. For example, African American children with ASD were more often first diagnosed with a conduct disorder, adjustment disorder, or ADHD (Mandell et al., 2002).

In more recent data, the median age of earliest known ASD diagnosis did not differ significantly by race/ethnicity (CDC, 2014). Thus, it appears that current differences in prevalence rates cannot be attributed entirely to delays in diagnosis for Black children with ASD.

Access and Utilization: Differences and Disparities

In addition to differences in autism diagnosis for African American children with autism, their families may experience similar difficulties when they try to navigate the system to arrange intervention services for their child. In this section, we consider the extent to which access to and utilization of health care and education services differ across race/ethnicity groups. In particular, we are interested in the extent to which African American children and families experience differences in access to, or utilization of, evidence-based intervention services designed to address the needs of children with ASD.

Education

The first intervention services for many children with ASD are offered through the Part C Early Intervention (EI) program. As this program extends only to age 3 years, many children with ASD are not diagnosed until after they exit Part C services. Nonetheless, at age 2 years, African American children who are eligible for Part C services are one-fifth as likely to receive those services, compared to White children even after adjusting for sociodemographic characteristics (Feinberg et al., 2011). Failure to access early intervention services becomes increasingly important as the age of diagnosis of ASD declines. The evidence for the value of early, intensive treatment of ASD is substantial (Weitlauf et al., 2014) and any factor that interferes with access to such services may be expected to affect outcome.

Special education services and other intervention services for children with ASD differ by race and ethnicity (Thomas, Ellis, McLaurin, Daniels, & Morrissey, 2007). Intensive behavioral intervention services may be less available in schools serving low-SES families because of the associated costs (Gourdine, Baffour, & Teasley, 2011), disproportionately affecting minority children. Community-level and school-division resources are associated with prevalence rates (King & Bearman, 2011; Palmer et al., 2005) and may also affect educational quality. African American students with ASD are less likely to receive support services following their exit from high school (Shattuck et al., 2011), suggesting absent or less effective transition processes. There is a disparity in the range and quality of services in predominantly low-income school systems (Evans, 2004). School staff training and fiscal resources available for teaching children with ASD are dissimilar across communities. The amount of time available for staff to implement intensive instructional interventions may be affected by school system limitations. Low-income African American parents may have no choice but to send their children to schools where the teachers lack adequate training and experience, and they may be less involved in school-based activities, including those that could help increase parent awareness and involvement (Tincani et al., 2009).

Differences in developmental trajectory and outcomes for children with ASD have been attributed to factors such as home and neighborhood environments, quality and intensity of treatment, quality of education, and the efficacy with which parents are able to advocate for their children with institutions providing services (Fountain, Winter, & Bearman, 2012). Many of these factors are associated with socioeconomic status and thus, as noted above, also differ across race/ethnicity groups.

Health and Mental Health Care

Children with ASD generally have diminished access to medical homes and are more likely to experience problems accessing health care, compared to children with other developmental disabilities (Tregnago & Cheak-Zamora, 2012) and these difficulties appear to be exacerbated in minority subgroups.

As noted above, differences in health care for African American children with ASD begin at the primary care level (Stevens & Shi, 2003) and such differences likely contribute to discrepancies in access and utilization. There are well-documented barriers to adequate health care for minorities (Reichard, Sacco, & Turnbull, 2004). In one sample, compared to White families, racial and ethnic minority families of children with ASD were half as likely to use a case manager to help coordinate treatment, and one-fourth as likely to receive sensory integration therapy or to have a psychologist or developmental pediatrician on the treatment team. Low levels of parent education and living in a non-metropolitan area exacerbate limitations in access to treatment services (Thomas et al., 2007).

Children with ASD are more likely to have problems obtaining needed care from specialty doctors, compared to children with other developmental disabilities, although differences in the likelihood of such difficulties have not consistently been noted across race/ethnicity groups (Krauss, Gulley, Sciegaj, & Wells, 2003). However, African American children with ASD have a low rate of utilization of subspecialty care in general as compared to whites, including a lower use of gastrointestinal/nutrition services, neurology, and psychiatry/psychology services.

They are also less likely to access procedures such as endoscopy, colonoscopy, and stool studies (Broder-Fingert, Shu, Pulcini, Kurowski, & Perrin, 2013).

Health care quality measures also show disparities across race/ethnicity groups. For example, African American families of children with ASD were more likely to report that their doctor did not spend enough time with their child, compared to White families (Magana, Parish, Rose, Timberlake, & Swaine, 2012). While the data with respect to health care disparities for African American children with ASD are limited, there are substantial concerns based on other studies examining the effects of race and disability (ASD) separately.

Racial differences in the utilization of health care services and access to health care are documented for children with a variety of conditions; for example, minority children are more likely to have no usual source of medical care, to have unmet needs for prescription medicine and dental care, and to have fewer preventive dental visits (Flores & Tomany-Korman, 2008). Minority children are more likely to experience barriers to treatment and service utilization such as lack of transportation (Broder-Fingert et al., 2013). Even after accounting for the effects of SES, African American children were less likely to get acute care in a timely fashion, less likely to have visited a personal doctor for preventive care, and less likely to have used any prescription medication and their families were more likely to have difficulty obtaining needed phone advice (Liptak et al., 2008). African American children have been found to experience less use of specialist services such as genetic testing or counseling (Shea, Newschaffer, Xie, Myers, & Mandell, 2014).

Other data indicate that, in some contexts, African American youths may not differ from White youths in overall use of mental health counseling, but those services are more likely to be school-based (Narendorf, Shattuck, & Sterzing, 2011). This finding emphasizes the importance of the school in providing services to children with minority status (Siller, Reyes, Hotez, Hutman, & Sigman, 2014) but may also suggest, for African American youth, reduced access to counseling in the health and mental health care context.

There is a disparity regarding health care transition services for youth with ASD from pediatric services to adult services. Only a fraction of youth with autism has health care transition services. In one study only 14 % of youth with autism had discussed transitioning to an adult provider with their pediatrician, less than 25 % discussed retaining health insurance, and less than 50 % had discussions regarding health care need as they age (Cheak-Zamora, Yang, Farmer, & Clark, 2013). While this study did not find race/ethnicity group differences in access to transition services, factors associated with adequate transition raise concerns that as access improves for majority youth, minority youth may fail to experience similar gains.

Vocational Training/Community Support

There is limited information on autism through the life span, for example, postsecondary education and employment outcomes for African American youth with autism. However, compared to their White counterparts, African American youth with ASD have been found to have a three times higher likelihood of receiving no postsecondary services (mental health, medical, speech, and case management services), in a model adjusted for SES (Shattuck et al., 2011). Shattuck et al. concluded that African American youth are at a high risk for service disengagement after high school, suggesting that there is a need for targeted assistance and community outreach for this population.

There are other differences in postsecondary outcomes as well. Young people with autism have the lowest rates of employment compared to youth with other disabilities, and in a large national sample, more than half of African American youth with autism who graduated from high school within the last 2 years had no paid employment or further education, compared to about 29 % of White youth with ASD (Shattuck et al., 2012).

Explanations for Differences in Utilization

The most basic reason for differences in utilization of services is the presence of differences in identification rates. If, as suggested by prevalence differences, African American children with ASD are under-identified, they are by default less likely to receive appropriate intervention services. However, there are other possible explanations for differences in service access and utilization.

Individual and Family Differences Lower use of some subspecialty services could be a function of increased aggressive behavior in young African American children with ASD (Horovitz et al., 2011). If the aggression becomes the main focus of encounters with the health care system, other issues such as depression, anxiety, or gastrointestinal concern may be overlooked (Broder-Fingert et al., 2013). Broder-Fingert et al. also cited physician referral bias, differences in self-referral, or differences in rates of referral follow-up as factors that may play a role in the referral discrepancies.

Other differences in presentation of ASD may also affect access to, and utilization of, intervention services. The over-representation of African American children among the group with ASD and co-occurring intellectual disability could contribute to differences in service use. Children with ASD and ID may have difficulty reporting physical complaints, resulting in lower utilization of health care services. Further, the increased likelihood of aggressive behavior among young African American children with ASD could contribute to lower health care service use if families do not view the problems as related to a health condition (Broder-Fingert et al., 2013).

There is some evidence, for children with AD/HD, that African American families are less likely than White families to use medical language to describe their children's problems. Because African American parents are more likely to attribute their children's problems to causes such as diet, rather than more generally accepted etiologies, at least with respect to AD/HD, they may be less likely to seek care through traditional medical systems (Bussing, Schoenberg, & Perwien, 1998). To the extent that similar attitudes prevail in the families of children with ASD, those children are likely to experience decreased access to intervention through the health care system.

Economic and cultural factors, and experience of discrimination have produced a mistrust of the service system among some African American families. Other factors that may restrict access and utilization include religious beliefs, fear of stigma in the community, lack of culturally competent medical and educational professionals, and insufficient or ineffective outreach efforts to the African American community (Thomas et al., 2007).

Cultural differences can also influence how the family perceives treatment options. Involvement with the mental health treatment system is controversial in some minority communities. As a result, African American families may be hesitant to attribute symptoms to mental health issues and reluctant to seek treatment. Stigma regarding mental health and developmental conditions in the African American community may also play a role in reduced utilization.

Family beliefs about the cause of a condition can vary across cultures and may affect the choice of treatment for a child with ASD (Bernier, Mao, & Yen, 2010; Yeh, Hough, McCabe, Lau, & Garland, 2004). As noted elsewhere, African American families may be less likely to attribute a child's symptoms to a health condition and they may be less inclined to seek traditional medical treatments because of these differences in beliefs (Schnittker, 2003).

Terhune (2005) examined differing perspectives on services among low-income African American women caring for family members with developmental disabilities. She identified one perspective, labeled "spiritual kin discourse," which favored relying on natural or informal supports rather than accessing the developmental disabilities service system. Terhune attributed this difference to the fact that the system failed to reflect the values professed by these families. Informal supports can be an important factor in outcomes for children with ASD and their families, though there are few data to illustrate that effect.

Cultural Competence The cultural competence of providers, and the resultant experiences African American families have with providers, may also affect utilization. Providers may project insensitive attitudes or make unwarranted assumptions about the child and his/her behaviors, causing the family to be wary of seeking out and utilizing further services. Thus, provider behavior that is perceived as biased or discriminatory may influence how likely the family is to use services in the future (Gourdine et al., 2011). African American families, especially those with lower incomes, may be intimidated by or distrustful of clinicians, or may be skeptical about their intentions; as a result, they may be reluctant to seek out or utilize long-term services for their children. Similar concerns have been documented with respect to the special education system (Zionts, Zionts, Harrison, & Bellinger, 2003).

Disparities in Quality of Care

There is continuing concern that racial and ethnic minorities receive lower quality health care, and other, services; such differences may be related to historical inequalities such as discrimination or contemporary inequalities such as lack of insurance and fewer services offered by Medicaid providers (Magana et al., 2012; Smedley et al., 2003).

Family Centered Health Care Low quality, or inadequate, care (e.g., less family centered) is more common for African American children with autism than for white children with autism, or for African American children with other special health care needs. African American parents are more likely than white parents to report that doctors do not spend adequate time with their child during appointments, and that doctors are not sensitive to their values; they are less likely to feel like a partner in the care of their child (Magana et al., 2012; Montes & Halterman, 2011). The lack of family centered care for African American families may contribute to the disparity in utilization of services and may increase potential for poorer outcomes. Without receiving specific, relevant information, and without feeling like a valued partner in their child's care, parents will be less likely to seek out and utilize needed services and effective treatments for their children.

Disparities in the quality of care have also been attributed to institutional racism, provider biases, lack of training or experience with minority communities, and lack of cultural competency of providers.

Positive behavior support (PBS) is a family centered approach and has been shown to be a promising and sensitive treatment approach for diverse settings (Dunlap, Newton, Fox, Benito, & Vaughn, 2001). A family centered approach to PBS considers the following: how maladaptive behaviors impacts the quality of life for the child and the family; the capacity of families to be involved in the intervention; and the impact of the intervention program on the daily schedules, routines, and environment (Tincani et al., 2009). Such an approach may serve to overcome some of the barriers to quality intervention experienced by African American families.

Access to Evidence-Based Treatments Because school systems serving mostly minority children may not have appropriate staff:student ratios or skilled staff to implement intensive interventions, parents may be forced to seek a combination of public and private funded interventions for their children. Applied behavior analysis-based therapy (ABA) is a promising evidence-based intervention for children with the autism spectrum. ABA therapy is a behavioral approach that focuses on behavioral interventions for skill deficits and maladaptive behaviors associated with ASD. Many find this treatment approach helpful especially during early intervention.

However, the resource demands of ABA-based interventions may be prohibitive for low-income

African American families. ABA therapy is expensive and requires considerable time, effort, and dedication. Minorities, especially African Americans who live in poverty may lack the resources to pursue this treatment. The stress of implementing an intensive ABA program, especially in the home, may also contribute to maternal stress and depression (Schwichtenberg & Poehlman, 2007).

While no medication treats core symptoms of ASD, access to psychotropic medication has often been an important adjunct to behavioral treatment. There is a disparity across race/ethnicity groups in the use of psychotropic drugs to treat children with ASD. White children were more likely to have used psychotropic drugs, while children who lived in areas with a lower percentage of white residents or greater urban density were less likely to use such medications (Mandell et al., 2008). Differences in psychotropic drug use may be attributable to disparities in access to health care, beliefs about adverse effects of medication, or general trust of the health care system (Bussing et al., 1998; DosReis et al., 2003).

Explanations for Differences in Quality of Care Quality of care differences may be attributable to a variety of factors. Interventions and treatment options chosen by minority families may take into consideration not only the uniqueness of the child with ASD, but also the dynamics of the family, and the values and world view of their culture. Parent involvement is essential for positive treatment outcomes in children with ASD. Culture influences how the parents perceive their child's disability as well as how they respond. Culture also contributes to a family's belief system and this belief system can shape the decisions about which interventions and treatments to pursue.

The support of family in minority cultures is crucial, especially extended families (Dyches, Wilder, Sudweeks, Obiakor, & Algozzine 2004). The presence of another generational member in the household is often an added support especially to single parent households, which are a reality for many African American families (Jackson, 1991). Extended family involvement (particularly three-generation families) increases support and care in single-mother African American households (Wilson, 1986). Many African Americans live with extended family members in multigenerational homes.

Along with culture, ethnic identity may also be a consideration. Ethnic identity derives from membership in an ethnic group and includes the emotional value that is placed on that group membership (Jackson, 1991; Spencer & Markstrom-Adams, 1990; Tajfel, 1981). Ethnic identity is also associated with self-esteem, social and peer interactions, and relationships of family members in ethnic groups (Phinney, 1990). The strength of ethnic identity may affect parents' views of the service system, the helping professionals, and the intervention options open to them.

Cultural beliefs about the cause of a disorder influence families' decision-making about what treatments to use and what outcomes to expect. Families may base their choice of treatment for a child with ASD on their belief as to the cause of the condition, and this can vary across cultural subgroups (Bernier et al., 2010). Autism offers a striking example, as there is no established cause for the condition, while there is an overwhelming array of treatments available in the West for autism, including behavioral, cognitive, pharmaceutical, sensory, relational, vitamin, and diet therapies. Other cultures' world views may contribute alternative views as to the cause of ASD (e.g., Karma, Allah's will) and the viability of alternative treatments (e.g., acupuncture, herbal medicines, ayurveda). A broad cultural view can help professionals understand families' treatment choices as they fit into the family culture in the context of the treatment delivery system (Ravindran & Myers, 2012).

Culture can also influence the goals of treatment for children with ASD. Some families may have a tendency to focus on treatment that targets maladaptive behaviors and facilitates being able to go out in the community and do activities as a family. Other families may concentrate on increasing individual independence and adaptive daily living skills. Parents' views of how their child should be raised can also play a part in treatment selection; differences in child rearing and cultural values must be considered when providers propose treatment plans to ethnic minority families (Bernier et al., 2010).

Many interventions are dependent on parent involvement and support in the treatment plan. Expectations of the roles of the parent and provider may vary across cultures. In some cultures parents do not expect, or wish, to have a role in treatment decisions or the delivery of treatment interventions. They may expect therapists, doctors, and schools to play the primary role in treatment plan decisions and may, as a result, lessen their involvement (Bernier et al., 2010). Differences in parents' expectations and cultural values and worldview can affect goals and outcomes of treatment and must be considered by service providers.

Responses to Disparities

The literature on autism assessment and treatment has benefitted from the larger discussion in health care and education with respect to the field's response to disparities, but there are few data specific to African American children with ASD. The literature suggests that many providers could benefit from cultural competency training. Such training might include knowledge about specific ethnic groups and methods of enhancing communication skills, as well as expanded use of cultural brokers (Magana et al., 2012).

A specific intervention to address differences in age of diagnosis for children with ASD would be to ensure that physicians and healthcare providers screen *all* children aggressively as a routine part of primary care, including children whose parents have not raised any particular concerns (Fountain, King, & Bearman, 2011). The use of structured screening and diagnostic tools can help to decrease the likelihood of a race/ethnicity bias in the identification of autism (Begeer et al., 2009).

Implications and Future Research

The impact of cultural diversity is an essential consideration for health care personnel, school system staff, and others who serve children with ASD. Family structure, belief systems, ethnic identity, attitudes toward the medical community, and expectations about parent involvement in treatment and education can have profound effects on access to, utilization of, and response to intervention for children with ASD. Additional research on the barriers to access to services and how to overcome them, and choices of treatments for minority children is needed with a particular focus on families of children with ASD.

Cultural competence training has been widely promoted in both health care and education contexts. However, the actual practical impact of such training on services to children with autism is largely unknown. Research considering the extent to which such training contributes to reducing racial and ethnic disparities in health care and education is sorely needed.

Further research is needed to investigate whether the observed differences in the ASD phenotype across race/ethnicity groups that are noted in the literature (e.g., differences in rates of aggression and in IQ) are valid or are a reflection of provider and system factors (Horovitz et al., 2011). Families would benefit from a better understanding of the factors that go into decisions about utilization of specialty care services such as genetic testing and counseling. Cultural or racial differences in the rate of acceptance of these services may substantially affect families of children with ASD, particularly as individually tailored interventions emerge from basic genetic research (Shea et al., 2014).

Finally, there is an urgent need to ensure that minority children with ASD and their families are appropriately represented in research samples and that, where appropriate, consideration is given to race/ethnicity subgroups to ensure that reported findings are equally relevant to all such subgroups. Research selection factors that systematically exclude African American families have been observed (Hilton et al., 2010) and deliberate efforts to overcome or circumvent such barriers will be required to achieve the goal of adequate representation.

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Attention Deficit Hyperactivity Disorder

18

Heather A. Jones, Annie E. Rabinovitch,
Laura D. Eddy, and Stephanie A. Wilson

Introduction

Approximately 8 % of 4- to 17-year-olds currently meet diagnostic criteria for attention-deficit/hyperactivity disorder (ADHD) in the USA (Froehlich et al., 2007; Visser et al., 2014). While difficulty focusing or sitting still at times is observed among many children, ADHD itself is characterized by a pattern of inattentive, hyperactive, and impulsive behavior that is not only pervasive, but also developmentally inappropriate. In a recent meta-analysis of studies on the prevalence of ADHD worldwide, Willcutt (2012) concluded that the prevalence rate of ADHD ranges from 5.9 % to 7.1 % and that this rate is stable regardless of method of diagnosis (e.g., clinical interview, teacher ratings, parent ratings). ADHD is highly heritable (Crosbie et al., 2013) and, while once thought to be a disorder of childhood, it is now apparent that ADHD is a lifelong condition for many people, warranting ongoing management of symptoms and impairment (Faraone & Biederman, 2005).

Children with ADHD display impairment across multiple contexts, including at home, at school, and with peers (Caci et al., 2014). Often, the home environment of children with ADHD is negatively impacted by the disorder. For example, in a review of the effects of ADHD in children on families, Johnston and Mash (2001) concluded that families of children with ADHD experience more dysfunction in overall family functioning, parent–child relationships, marital relationships, and parenting self-efficacy compared to families of children without ADHD. Specifically, families of children with ADHD report more stress and conflict relative to families of children without ADHD (Biederman et al., 1999; DuPaul, McGoey, Eckert, & VanBrakle, 2001), as well as higher ratings of perceived family burden (Bauermeister et al., 2007). Levels of family discord and rates of divorce also tend to be higher in households in which a child has been diagnosed with ADHD (Wymbs et al., 2008). Additionally, lower levels of parent–child attachment are observed in families of children with ADHD (Bauermeister et al., 2007), and parents of children with ADHD report more parenting stress and lower levels of parenting satisfaction relative to parents of undiagnosed children (Lange et al., 2005; Theule, Wiener, Tannock, & Jenkins, 2013). Childhood ADHD also is associated with the use of poorer parenting

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H.A. Jones (✉) • A.E. Rabinovitch • L.D. Eddy
Department of Psychology, Virginia Commonwealth University, 806 West Franklin Street,
Richmond, VA 23284, USA
e-mail: hjones7@vcu.edu

S.A. Wilson
Department of Psychology, Temple University,
1701 North 13th Street, Philadelphia, PA 19122,
USA

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practices (Shelton et al., 1998) and lower levels of parenting self-efficacy (Maniadaki, Sonuga-Barke, Kakouros, & Karaba, 2005). This pattern of impairment in the home setting is consistent across both clinical samples and community samples (Bauermeister et al., 2007), indicating that it is not only treatment-seeking families who experience impairment in the home setting.

In addition to the impact on families, symptoms of ADHD may impede children's ability to focus, making the demands of school particularly challenging. Children with ADHD display lower standardized test scores than children without ADHD (McConaughy, Volpe, Antshel, Gordon, & Eiraldi, 2011) and are more likely to be required to repeat a grade (Loe & Feldman, 2007). Overall, children with ADHD display behaviors consistent with academic underachievement and often obtain poorer scores on tests of standard academic skills (i.e., reading, mathematics, and writing) than what might be expected given their intellectual abilities (DeShazo Barry, Lyman, & Klinger, 2002). This academic underachievement has been directly linked to the symptoms of ADHD. Specifically, inattention may impede children's ability to focus and absorb information (Rogers, Hwang, Toplak, Weiss, & Tannock, 2011), and the behavioral disinhibition seen as hyperactivity and impulsivity often results in disruptive classroom behavior, interrupting the learning process (DeShazo Barry et al., 2002). Academic impairment often persists as children grow older; compared to undiagnosed peers, adolescents with ADHD take longer to graduate high school (Mannuzza, Klein, Bessler, Malloy, & LaPadula, 1998) and are less likely to attend or graduate from college (Mannuzza et al., 1998; Weiss, Hechtman, Milroy, & Perlman, 1985).

Concurrent with their academic struggles, children with ADHD often experience difficulties with peer relationships. They score lower on measures of social functioning compared to children without ADHD (McConaughy et al., 2011) are less well-liked by their peers, and have fewer dyadic friendships (Hoza, Gerdes, et al., 2005; Hoza, Mrug, et al., 2005). It may be that the core symptoms of ADHD make it more difficult for children with the disorder to form and maintain friendships. There is some evidence to suggest that behaviors caused by the core symptoms of ADHD (e.g., trouble focusing, impulsive behaviors) are distressing to others (Whalen & Henker, 1992). For example, children with ADHD may frequently interrupt peers during conversations or lose track of the flow of conversation, making it more difficult for peers to interact with them. It is posited that children with ADHD have an innate difficulty interpreting body language, tone of voice, and other nonverbal social cues. As a result, children with ADHD may often have independent social deficits, thus affecting their interpersonal relationships (Merrell & Wolfe, 1998). Finally, the difficulties with sustained attention experienced by children with ADHD may make it harder for them to learn appropriate social behavior from others, leading to a skills deficit in this domain (Cunningham, Siegel, & Offord, 1985). Accordingly, many children with ADHD may lack the ability to concentrate for the amount of time needed to learn positive social behaviors modeled by family members or peers, leading to a lack of skills in this domain.

Although boys are diagnosed with ADHD nearly twice as often as girls (Bauermeister et al., 2007; Graetz, Sawyer, & Baghurst, 2005), there appear to be only slight gender differences in the numbers of symptoms exhibited and the numbers of comorbid disorders (Bauermeister et al., 2007; Graetz et al., 2005). A recent meta-analysis, focused on gender differences in ADHD-diagnosed youth, found that girls are reported as having fewer symptoms of ADHD and lower rates of comorbid externalizing problems compared to boys (Gershon, 2002). In most studies, girls with ADHD did not differ significantly from their male counterparts regarding depression and anxiety disorders, but boys displayed slightly higher rates of disruptive behavior disorders (Graetz et al., 2005). Furthermore, there is some indication that girls with ADHD show slightly more impairment in self-esteem than do boys who meet criteria for ADHD with predominantly inattentive symptoms (Graetz et al., 2005).

In addition to the notable amount of impairment experienced by youth with ADHD, there is a heightened risk for comorbid disorders within this population. Disruptive behavior disorders co-occur with ADHD at particularly high rates, such that researchers have estimated that 54–67 % of children with ADHD are also diagnosed with oppositional defiant disorder (ODD; Barkley, 2003), which is characterized by a pattern of pervasive disobedience and defiant behaviors (APA, 2013). Furthermore, by middle childhood as many as 20–50 % of youth presenting to clinics with ADHD also meet criteria for Conduct Disorder (Barkley, Fischer, Smallish, & Fletcher, 2004), a disorder marked by rule-breaking behavior in addition to aggression, hostility, and general disobedience (APA, 2013). Children with ADHD are also at a high risk for being diagnosed with learning difficulties. Around 20–50 % of children in community samples who meet criteria for ADHD also meet criteria for a learning disorder (Pliszka, 2000). Alarmingly, rates of learning disorders in clinical samples of children with ADHD are even higher at 70 % of children with ADHD (Mayes, Calhoun, & Crowell, 2000). Other disorders that commonly co-occur with ADHD in youth populations include internalizing difficulties such as anxiety disorders, mood disorders, and substance use disorders. Around 10–40 % of children with ADHD presenting for mental health services are also diagnosed with an anxiety disorder (Tannock, 2000), and 20–30 % of children who meet criteria for ADHD also meet criteria for a depressive disorder (Barkley et al., 2004). This is of high concern, given that children with comorbidities often experience more severe social and academic impairment compared to those with ADHD alone (Blackman, Ostrander, & Herman, 2005). In addition, compared to those without ADHD, youth with ADHD are more likely to use substances (e.g., alcohol, recreational drugs, or cigarettes) at an earlier age (Chang, Lichtenstein, & Larsson, 2012) and are at a higher risk of being diagnosed with a substance abuse disorder in adolescence (Elkins, McGue, & Iacono, 2007). It also appears that a diagnosis of ADHD may have implications for physical health. For example, higher numbers of sleep difficulties are reported by children with ADHD, such as difficulty falling asleep, night-time awakenings, daytime sleepiness, and lower sleep efficiency compared to children without ADHD (Cortese, Faraone, Konofal, & Lecendreux, 2009). Finally, children diagnosed with ADHD are as much as two to three times more likely to experience an accidental injury compared to children without ADHD (Lam, Yang, Zheng, Ruan, & Lei, 2006). In sum, a diagnosis of ADHD is associated with a heightened risk of multiple health and mental health conditions.

DSM-IV versus DSM-5 Criteria for the Diagnosis of ADHD

In 2013, the American Psychiatric Association released the fifth edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-5; American Psychiatric Association, 2013), the classification system for psychiatric disorders used by researchers, practitioners, and insurance companies. The DSM-5 contained a revised set of criteria for ADHD, now located in the Neurodevelopmental Disorders section of the text. Changes to the diagnostic criteria for ADHD and the implications of each are discussed below.

One requirement for a diagnosis of ADHD in prior versions of the DSM was that symptoms must be present before the age of seven. The DSM-5 now calls for the presence of symptoms before the age of 12. This change likely reflects research findings which indicate that individuals who display enough symptoms of ADHD to qualify for a diagnosis display similar patterns of impairment, treatment outcomes, and comorbidity regardless of whether symptoms were present before age seven (Faraone et al., 2006). In addition, as previously noted, the diagnostic criteria for ADHD are now located in the newly created Neurodevelopmental Disorders section, which represents a move from the previous edition, in which this disorder was located in the section entitled, Disorders Usually First Diagnosed in Infancy, Childhood, or Adolescence. This move demonstrates a shift in the conceptualization of ADHD—instead of being considered a disorder limited to childhood, ADHD is now considered a chronic disorder with symptoms that persist into adulthood (Biederman et al., 2010; Kessler, Chiu, Demler, & Walters, 2005).

Similarly, another notable change in the DSM-5 is the reduction in the number of symptoms required for a diagnosis for older adolescents and adults. The DSM-IV-TR required the presence of at least six symptoms of either inattention, hyperactivity/impulsivity, or both. In contrast, the DSM-V now requires the presence of only five symptoms in either symptom domain in order for an older adolescent or adult to meet criteria. Critics of the change argue that this will artificially inflate the number of ADHD diagnoses; however, this change is in line with the current body of research, which concludes that many older adolescents and adults who do not meet DSM-IV-TR criteria for ADHD often exhibit rates of ADHD symptoms that are markedly above average (Ramtekkar, Reiersen, Todorov, & Todd, 2010; Solanto, Wasserstein, Marks, & Mitchell, 2012). Thus, this diagnostic change allows clinicians to better identify ADHD in older adolescents and adults who continue to experience difficulties in day-to-day functioning (Kooij et al., 2005).

Another change from the DSM-IV-TR to the DSM-5 is the elimination of the subtypes of ADHD, which included predominantly inattentive, predominantly hyperactive-impulsive or combined types in the DSM-IV-TR. This change arose largely in response to findings that the subtypes were not stable over time (Lahey, Pelham, Loney, Lee, & Willcutt, 2005). In particular, Lahey et al. (2005) found that children characterized as predominantly hyperactive/impulsive were likely to shift to one of the other subtypes when assessed at later time points. Moreover, there is no evidence for differences in treatment response between subtypes (Solanto et al., 2009), which provides further indication that the subtypes do not necessarily capture discrete groups. This issue was addressed in the DSM-5 by reclassifying these subtypes as "presentations," which are now understood to be susceptible to change over time.

Other changes to the DSM-5 were more minor. For instance, the DSM-5 now requires that symptoms are present in more than one setting, but does not require evidence of impairment in more than one setting, as was the case in the previous diagnostic manual. Also, instead of calling for "clear evidence of clinically significant impairment" to qualify for a diagnosis, the DSM-5 now requires that there is evidence of interference or "reduced quality of life" in major life domains (e.g., work, school). Both of these changes will promote the reliability of ADHD diagnoses, by making the requirements clearer and more concretely defined. Whereas there is a vast amount of variation in the concept of "clinically significant impairment" there is far less disagreement about what constitutes "interference" or "reduced quality of life." Furthermore, while it is certainly possible that symptoms may be present without associated impairment, there is a strong positive association between number of symptoms and impairment (Szuromi, Bitter, & Czobor, 2013), which implies that most individuals presenting to clinical settings will be experiencing both impairment and an elevated symptom count. It is far less likely that individuals will experience significant impairment with few symptoms. Thus, the DSM-5 appears to be directing the process of diagnosis toward the identification of clear, easily measured symptoms, rather than impairment.

ADHD in African American Children

While a substantial body of research has documented the manifestation of the disorder in samples consisting mainly of Caucasian, middle-class males, far less research has been conducted using racially diverse samples. Namely, less is known about ADHD in African American youth. Research has demonstrated that African American children display more symptoms of ADHD than their Caucasian peers (DuPaul et al., 1998; Reid, Casat, Norton, Anastopoulos, & Temple, 2001). Furthermore, this pattern of symptoms has been noted across different raters and observers (Epstein et al., 2005; Evans et al., 2013), leading researchers to conclude that the difference likely is not due to observer bias. In regards to psychiatric comorbidity, there is some research evidence to suggest that compared to Caucasian children with ADHD, African American children with the disorder have lower levels of comorbid disorders, including ODD, CD, anxiety, and depression (Samuel et al., 1998). Accordingly, the authors concluded that ADHD in African American children might be more responsive to treatment.

As mentioned above, research characterizing ADHD in African American children pales relative to the research available on Caucasian children with ADHD. However, there has been a recent burgeoning of literature examining longer-term mental health outcomes for African Americans with an earlier diagnosis of ADHD. For instance, Behnken et al. (2014) examined factors that may mediate the relationship between childhood ADHD and later legal problem in 211 African Americans. The authors found that a diagnosis of ADHD prior to age 13 indirectly predicted later exclusionary school discipline (e.g., expulsion, suspensions), juvenile arrests in adolescence, as well as arrests and educational attainment in young adulthood. These findings underscore the strong need for early school-based intervention for African American children with ADHD that promotes educational success. Specific school-based interventions for ADHD will be discussed in further detail later in this chapter.

Although child ADHD has been found to be predictive of later negative outcomes (e.g., arrests) for African Americans, there is also research suggesting that African American children with ADHD may not be subject to the same pattern of adult mental health issues relative to Caucasians with ADHD. Specifically, Jerrell, McIntyre, and Park (2015) using South Carolina Medicaid data from over 22,000 racially diverse patients sought to determine risk factors for the later development of major depressive disorder in children and adolescents with prior diagnoses of ADHD. Results indicated that African American children with ADHD were significantly less likely to develop depression relative to other children. Importantly, this finding may highlight outcomes that may be unique to African American children with ADHD.

Evidence-Based Treatment of ADHD

As mentioned above, ADHD is among the most common psychological disorders affecting youth (Salmeron, 2009). From a developmental psychopathology perspective, children and adolescents exist within several environmental contexts, most notably within the family, at school, and with peers. Consistent with this perspective, development unfolds through dynamic interactions between a youth and his/her environments (Kerig & Wenar, 2005). Inherent in each environment are risk and protective factors that must be considered within the context of treatment in order to optimize developmental outcomes for youth with ADHD (Johnston & Mash, 2001). In a similar vein, treatments for ADHD must be *adapted* to meet the developmental stage of an individual, utilizing developmentally sensitive strategies to address behaviors that are most impairing at a given stage in development. Not only is ADHD prevalent, it is characterized by significant functional impairment across a variety of domains. Accordingly, several evidence-based treatments, including both psychosocial and pharmacological interventions, have been developed for ADHD (Chronis, Jones, & Raggi, 2006); however, few researchers have specifically examined treatment outcomes specifically for African American children. Following, we provide an overview of the current evidence base regarding evidence-based ADHD treatments and note, where appropriate, the study of their use with African American youth.

Family-Based Treatment for ADHD Given the high degree of functional impairment observed in the homes of children with ADHD (Deault, 2010), as well as the pivotal role that parents play in the development of children (Kerig & Wenar, 2005), behavioral parent training (BPT) has been identified as the frontline psychosocial treatment for ADHD (Pelham, Wheeler, & Chronis, 1998). Consistent with tenets of social learning theory, caregivers are taught strategies to modify inappropriate or unwanted behaviors in children by pinpointing and altering antecedents and consequences of such behavior. Furthermore, caregivers are taught strategies to target and monitor child problem behavior over time (Chronis, Chacko, Fabiano, Wymbs, & Pelham, 2004). Broadly, the goals of BPT are to increase the presence or frequency of appropriate behaviors through strategies such as praise, positive attention, and tangible rewards, and to decrease the frequency of problem behaviors through such strategies as planned ignoring, time out, and other non-physical forms of discipline (Chronis et al., 2001, 2004). BPT attempts to reduce consequences, such as parental attention, that may be inadvertently maintaining child problem behaviors, while at the same time increasing positive reinforcement for desired behavior (Barkley 2000). Considering the developmental level of children, research on the effectiveness of behavioral parenting strategies recommends that behavioral consequences be tangible, provided with frequency, and presented directly following a child's behavior, to allow the child to draw a connection between his/her behavior and the resulting consequence (Chronis et al., 2006).

BPT is considered one of the most effective means of altering maladaptive parenting strategies and ultimately treating ADHD in children (Anastopolous, Shelton, DuPaul, & Guevremont, 1993; Pelham et al., 1998; Sonuga-Barke, Daley, Thompson, Laver-Bradbury, & Weeks, 2001). A vast body of literature has documented improvement in child problem behavior following BPT, as measured by both parent ratings of child behavior as well observed parent–child interactions (Chronis et al., 2004). Furthermore, although the aim of BPT has generally been to improve child problem behavior, such treatment has, in some cases, been associated with secondary gains, including decreases in parental stress (e.g., Anastopolous et al., 1993) and improved social functioning in children (Pelham et al., 1988).

Despite research findings indicating that BPT is an effective evidence-based treatment for child ADHD, proven benefits of BPT have at times fallen short. The success of BPT has in part been limited by inconsistent adherence to treatment among families. For example, Barkley (2000) found that despite enrolling in treatment, a large number of families either fail to attend or discontinue treatment early. Furthermore, among families that *do* attend treatment sessions, many arrive tardy, do not complete homework assignments associated with treatment, or attend sessions on an inconsistent basis (Cunningham, Davis, Bremner, Dunn, & Rzasa, 1993). Accordingly, steps have been taken to target specific populations that have struggled with regard to BPT treatment adherence and to adapt BPT to increase its effectiveness with populations such as fathers (Fabiano et al., 2012) and single parents (Pfiffner, Jourile, Brown, Etscheidt, & Kelly, 1990).

A significant limitation to the study of BPT is that research on its effectiveness has in large measure been conducted with middle-class Caucasian families to the exclusion of other races and socioeconomic classes (McNeil, Capage, & Bennett, 2002). The dearth of literature in regards to the effectiveness of BPT for African American families of children with ADHD may have significant treatment implications given that BPT entails modifying parenting strategies. In the absence of empirical literature on the effectiveness of BPT for this population, its clinical utility for treating ADHD in African American youth remains in question.

The lack of literature on the effectiveness of BPT among African American families with ADHD is disappointing given well-established trends in the parenting literature regarding racial differences in parenting. Within the context of discussing such differences, it is important to present conceptualizations of parenting in the literature and also to highlight some of the limitations to research on racial differences in parenting styles and practices. The developmental literature on parenting has generated a number of conceptualizations and characteristics of parenting (e.g., Lewis, 1981; Maccoby & Martin, 1983). The bulk of parenting studies in the developmental psychology literature are guided by Baumrind's early parenting style typology (see Baumrind 1967, 1991; Huh, Tristan, Wade, & Stice, 2006; Maccoby & Martin, 1983; Steinberg et al., 1992), in which four primary parenting styles were identified: authoritative, permissive, authoritarian, and neglectful (Baumrind, 1967). These styles describe the manner in which parents reconcile a child's need for both limit-setting and nurturance (Baumrind, 1967). Of note, later factor analyses failed to replicate a distinct dimension for neglectful parenting; thus, this style was omitted from future conceptualizations (Baumrind, 1991).

Authoritative parenting is marked by high levels of warmth, parental involvement, bidirectional communication, firm limit-setting, and autonomy granting (Baumrind, 1991; Maccoby & Martin, 1983; Steinberg et al., 1992). Authoritarian parenting is characterized by high demandingness and low responsiveness. Among caregivers utilizing this style of parenting, orders are often directed at children and expected to be obeyed without explanation. This style of parenting is also marked by clear rules, strict monitoring of a child's whereabouts (Amato & Fowler, 2002). Permissive parenting is characterized by high levels of responsiveness and low demandingness, placing few demands for age-appropriate behavior on the child, and providing relatively loose rules as to how a child ought to behave (Baumrind, 1991). Some research on racial differences in parenting has indicated that many African American caregivers employ parenting practices consistent with authoritarian parenting style and Caucasian caregivers tend to use practices consistent with authoritative parenting style; however, researchers examining parenting in families from diverse racial and socioeconomic backgrounds have called into question whether Baumrind's parenting typology holds cross-culturally (e.g., Mason, Walker-Barnes, Tu, Simons, & Martinez, 2004; Tamis-LeMonda, Briggs, McClowry, & Snow, 2008).

Research on racial differences in parenting has often failed to take into account that some parenting practices *convey different meanings in different cultures*. For example, among low-income, urban-dwelling African American families, unidirectional communication and strict monitoring of a child's whereabouts may convey both caring and investment. As well, although it is a common belief that authoritarian parenting results in negative outcomes for children (e.g., Baumrind, 1991), in examining research with racially diverse families, this finding is not upheld. For instance, Baumrind (1972) found that in contrast to those findings with Caucasian families, analyses examining African American parents' use of authoritarian parenting were *not* associated with behavioral noncompliance in African American children. Querido et al. (2002) similarly found that African American caregivers endorsing authoritarian parenting practices were less likely to report child behavior problems relative to African American caregivers endorsing parenting practices consistent with authoritative parenting style. Finally, in examining outcomes in the social domain, Brody and Flor (1998) found that parenting strategies consistent with an authoritarian style predicted strong social competence in children.

Those strategies taught to parents during BPT are consistent with authoritative parenting strategies (e.g., high levels of responsiveness and warmth). However, given the above evidence supporting positive outcomes for African American children reared in an authoritarian style, it would be important for clinicians to consider possibly modifying components of BPT to match parenting documented in African American families. Likewise, it would be important for clinicians to assess the role of *context* on child behavior. For example, among African American families residing in urban crime-ridden environments, scrupulous parental monitoring (a practice consistent with authoritarian parenting) may serve to keep children safe. In such instances, it may not be advisable to teach parents to reward child behavioral compliance with greater autonomy.

Most of the knowledge that researchers and clinicians have regarding the effectiveness of BPT for African American families of children with ADHD comes from large-scale randomized-controlled studies, notable among which is the Multimodal Treatment for Attention-Deficit/Hyperactivity Disorder (MTA; MTA Cooperative Group, 1999). Primary post-treatment results were published over a decade ago (MTA Cooperative Group, 1999), with follow-up corollary investigations ongoing. The MTA included a large ($N = 579$), racially and ethnically diverse (61 % Caucasian, 20 % African American, 49 %

Latino, and 11 % Asian, Pacific Islander, Mixed, and Other) sample of children and their caregivers. Participants were randomized to receive one of four treatment arms: (1) medication management; (2) behavioral treatment (including BPT); (3) a combination of medication management and behavioral treatment; or (4) community care (treatment as usual).

Utilizing data from the MTA study, Jones et al. (2009) employed a matched-pair strategy (matched by site, sex, and treatment group) and examined pre- and post-treatment observed parenting behaviors among racially diverse subsamples. The authors disinterred significant racial differences across several parenting behaviors, while controlling for racial and ethnic differences in socioeconomic status. Specifically, after controlling for demographic group differences (e.g., maternal education, use of public assistance), Caucasian parents demonstrated statistically significant higher levels of setting the stage behaviors (i.e., parent prepares child for upcoming event by providing a summary of what is to occur as well as behavioral expectations for the child), positive reinforcement, and warmth relative to African American parents. Jones et al. also found statistically significant differences between African American and Caucasian parents with African American parents making greater use of behavior management strategies (i.e., caregiver increases limits in the context of high levels of child negative behavior and decreases limits in response to appropriate child behavior) via coded parent–child observations. Despite these racial differences, race did not moderate the relationship between treatment and outcome, and African American children displayed less verbal abuse towards their parents in the interactions than Caucasian children. Taken together, such findings demonstrate that the commonly held assumption of authoritarian parenting as producing negative child outcomes has not been verified in studies examining racial differences in the relationship between parenting and child outcomes. As such, researchers should continue to examine whether BPT as it is currently structured (i.e., positive parenting strategies taught earlier in treatment, providing appropriate commands and punishment taught later in treatment) is culturally responsive.

School-Based Treatment for ADHD Children with ADHD experience functional impairment both within the home environment and at school. For this reason, evidence-based treatments to manage symptoms of ADHD and corresponding impairment within the classroom have been developed. Like BPT, such interventions are behaviorally based and are often referred to as behavioral classroom management (BCM). In a comprehensive review of treatment for ADHD, BCM interventions have been found to be evidence-based treatments for children with ADHD (Evans, Owens, & Bunford, 2014). However, because research establishing the effectiveness of BCM interventions for children with ADHD has been conducted with racially homogenous (i.e., primarily Caucasian samples), the efficacy such intervention cannot be generalized to racially diverse groups without more researchers adequately reporting on the ethnic and racial composition of their samples as well as examining race/ethnicity as a potential moderator of the relationship between intervention and outcomes (similar to the way gender is often examined as a moderator).

Recent studies on the efficacy of BCM have indeed found robust benefits for such interventions (Fabiano et al., 2010; Mikami et al., 2012). For example, Fabiano et al. (2010) evaluated the use of a daily report card (DRC) intervention in conjunction with ongoing teacher consultation in comparison with special education (treatment as usual) for 60 elementary school-age children over the course of an academic year. Approximately one half of the sample was randomized to receive the DRC intervention plus special education services. The DRC intervention consisted of consultation between a behavioral expert, the child's teacher and parent, working together to develop and implement a DRC within the context of the child's Individualized Education Program (IEP). Results indicated that the combined treatment group evidenced improved classroom functioning based upon observations, greater attainment of IEP goals, and improved teacher ratings with regard to academic productivity and classroom disruptive behavior. Unfortunately, the combined arm did not result in improvements in academic achievement, teacher-rated ADHD symptoms and impairment, or the teacher–child relationship. While BCM has excellent support in the ADHD treatment literature thus far, it is important to note that these child outcomes have not yet been specifically examined with African American children.

Peer Interventions for ADHD In addition to functional impairment within home and academic domains, children with ADHD also evidence impairment with peers. Research indicates that children with ADHD are more likely to experience social skills deficits, negatively impacting their relationships with peers. Specifically, such children often receive significantly lower social nominations relative to peers without ADHD (Hoza, Gerdes, et al., 2005; Hoza, Mrug, et al., 2005). Results from Whalen and Henker (1992) suggest that some of the core symptoms of ADHD (e.g., excessive talking, interrupting or intruding upon others) may directly and negatively impact children's peer relationships. Findings indicated that impulsivity and hyperactivity in particular observed among children with ADHD might be aversive to peers, thus distancing children with ADHD from social networks. In a similar vein, it may be that symptoms of inattention make it difficult for children with ADHD to acquire important social skills through observational learning (Cunningham et al., 1985), limiting the child's opportunities to engage in smooth social interactions.

Furthermore, while stimulant medication and behavioral therapy are effective at addressing some of the core symptoms of ADHD (MTA Cooperative Group, 1999), the efficacy of such modalities in improving peer relationships for children with ADHD is not well validated. Results from the MTA indicated that while some aggressive and intrusive behaviors of child participants decreased, peer social nominations remained low (MTA Cooperative Group, 1999). Accordingly, interventions have been developed to address some peer-related impairment observed among children with ADHD. For instance, Frankel, Myatt, Cantwell, and Feinberg (1997) developed an intervention within which children received group-formatted social skills training, while their parents met simultaneously to learn about child social skills, as well as how to reinforce such skills within the home environment. Results indicated that adult ratings of children's social behavior improved post-treatment. However, it is unclear how such improvements directly translate to social difficulties experienced by children with ADHD in interacting with peers.

Another intervention that has been widely used in addressing a range of impairments among children with ADHD, including those related to peers, is the Summer Treatment Program (STP; Pelham, Fabiano, Gnagy, Greiner, & Hoza, 2005). The STP incorporates contingency-management treatment components such as token or point systems, social reinforcement (e.g., praise), effective commands, time-out, and DRCs. Furthermore, such interventions are carried out across both recreational (e.g., summer camp) and academic settings and are aimed at addressing children's social skills deficits, adult–child interactions, academic performance, and self-efficacy. The STP also provides concurrent behavior management training, assessments for pharmacological treatment, and school follow-up as needed. As part of STP, Hoza, Mrug, et al. (2003) designed an intervention wherein children with ADHD were assigned "buddies." As part of the intervention, parents were instructed to arrange playdates for their child and his/her buddy. While results indicated that children developed a closer relationship with their partner post-treatment, the study lacked a control group.

In an effort to improve upon earlier peer interventions, Mikami, Lerner, Griggs, McGrath, and Calhoun (2010) evaluated parents as friendship coaches (PFC), a parent-delivered peer intervention for children ages 6–10 with ADHD. As part of the intervention, parents were taught to facilitate social contexts in which children could develop peer friendships. Parents also attended eight intervention sessions during which they were taught strategies to coach their children in the use of appropriate social skills (e.g., turn-taking, expressing interest in others' ideas). Results indicated that the children's social skills and friendship quality during playdates improved per parent-report, as well as their peer acceptance in school per teacher report. However, no effects were detected for number of playdates hosted or child social skills per teacher report. While promising, this is another intervention area that has largely neglected to examine whether treatment outcomes with African American children specifically differ from those of primarily Caucasian children.

Organizational Skills Training Children with ADHD often experience difficulties with organizational skills such as keeping their class materials in folders or cleaning their room. These children face even greater impairment as they progress through school as environmental demands become greater. Poor organizational skills (e.g., failure to write down assignment due dates, losing important class papers) may be associated with suboptimal academic performance, as well as conflicts with parents and teachers (Power, Werba, Watkins, Angelucci, & Eiraldi, 2006). Similarly, misplacing or forgetting gear for sports activities after-school may begin to strain peer relationships (Diamantopoulou, Rydell, Thorell, & Bohlin, 2007). Accordingly, the evidence-based interventions for school-aged children place a strong emphasis on organization.

Among the interventions developed to treat ADHD in elementary-age children is organizational skills training (OST). OST assumes that the impairment experienced by children with ADHD are related to deficits in a child's ability to organize materials, track assignments, effectively manage time, and plan ahead (Abikoff et al., 2013). The intervention addresses such deficits by teaching children novel tools and routines, including organizing papers in binders, breaking assignments into smaller steps, and anticipating how much time given assignments will take. Parents and teachers are taught to monitor the child's execution of newly acquired organizational and planning strategies, and provide rewards for successful implementation.

OST has garnered some preliminary empirical support (e.g., Abikoff et al., 2013). Specifically, although child-focused performance-based interventions are a relatively new treatment modality for ADHD (Hinshaw, 2007), Abikoff et al. found that following OST intervention, children's organization, time management, and ability to plan ahead improved significantly both in the home and school environments.

The transition from elementary school to middle-school may present unique environmental challenges for young adolescents with ADHD, as youth are faced with increased demands for independence, take on larger workloads, and are taught by multiple teachers (Evans, Serpell, & White, 2005). Research suggests that young adolescents with ADHD often lose homework assignments or fail to turn them in, lack appropriate materials for class (e.g., paper and pencil), and engage in procrastination, which makes it difficult to adequately prepare for upcoming tests (Langberg et al., 2011). It is no surprise that young adolescents with ADHD experience significant academic difficulty.

Developed by Langberg, Epstein, Becker, Girio-Herrera, and Vaughn (2012), the homework, organization, and planning skills (HOPS) intervention is school-based and designed to ameliorate the organizational and planning deficits faced by middle school-age children with ADHD. Langberg et al. evaluated the HOPS intervention in a sample of 47 middle-school children with ADHD, randomized to either wait-list or HOPS. The intervention, which was carried out by school mental health professionals consisted of 16 one-on-one sessions during the school day, beginning twice weekly and progressing to once weekly. In this study, HOPS addressed three primary skills deficits: school material organization, homework recording/management, and planning/time management. During sessions, participants were taught organizational systems for their backpacks, binders, and lockers, as well as techniques for transferring materials from home to school. As well, youth were taught strategies for recording their homework as well as breaking assignments up to into manageable pieces. Results indicated that at post-treatment, among youth in the HOPS condition, parents observed significant improvement in the domains or organized action, planning, and homework completion behaviors relative to those youth in the waitlist condition. As of yet, subsample analyses have not been conducted to examine whether African American children with ADHD differentially benefit from OST.

Pharmacological Treatments for ADHD In addition to psychosocial treatments for ADHD, pharmacological approaches have been used to treat the disorder and have largely demonstrated positive effects (Pliszka, 2007). ADHD is most often treated with stimulant medication, the most common of which include methylphenidate and a combination of amphetamine salts. In a review of studies examining the effectiveness of medication for ADHD, Pliszka (2007) found that approximately up to 75 % of youth demonstrate clinically significant improvement in ADHD symptomatology.

Although until approximately 15 years ago, there was some debate over the mechanisms through which stimulant medications exerted their effect on child problem behaviors, several studies in the late 1990s (e.g., (Pliszka, McCracken, & Maas, 1996; Volkow et al., 1997) have helped to elucidate such mechanisms. Specifically, researchers have found that stimulant medications exert their therapeutic effect through changes in frontal-striatal activity (Volkow et al., 1997) by acting directly on three neurotransmitters implicated in response-inhibition: dopamine, norepinephrine, and epinephrine (Pliszka et al., 1996). Stimulants are packaged in both short-acting and long-acting formulas. Results from Connor, McLaughlin, and Jeffers-Terry (2008) indicated that short-acting stimulants typically begin to affect child behavior approximately 30–45 min post-ingestion, with optimal effects occurring between two and four hours following ingestion. After three to seven hours, the effects of short-acting stimulant medication begin to dissipate; therefore, it is often prescribed twice or thrice daily to children. By contrast, extended-release stimulants produce therapeutic effects incrementally throughout the day, and therefore require once-daily administration.

In considering the therapeutic benefits associated with stimulant treatment for ADHD, treatment outcomes focus either on improvement in the core symptoms of ADHD (e.g., distractibility, forgetfulness, impulsivity) or on the domains in which core symptoms negatively impact individuals (e.g., academic and social functioning). In regards to improvement in core symptoms, several studies have indicated that following initiation of stimulant medication treatment, increases in sustained attention, greater impulse control, and fewer off-task behaviors in children are demonstrated (Connor et al., 2008; Rapport & Kelly, 1993; Solanto et al., 2001). Studies have also demonstrated that successful medication treatment for ADHD may be associated with enhanced productivity within the academic domain (Pelham, Bender, Caddell, Booth, & Moorer, 1985; Rapport, DuPaul, Stoner, & Jones, 1986). Specifically, research indicates that stimulant medication may increase the amount of schoolwork completed by children, as well as the accuracy of such work (Pelham et al., 1985).

Although studies support comparable efficacy of stimulant medication across children and adolescents (e.g., Smith, Pelham, Gnagy, & Yudell, 1998), it should be noted that significantly less research has evaluated the effect of this treatment modality on adolescent populations (Smith, Waschbusch, Willoughby, & Evans, 2000). In childhood, caregivers arguably have more control over administration of ADHD medication. However, in adolescence, youth may gain responsibility for adhering to medication regimens themselves. Given the tendency for adolescents to prematurely terminate such treatment, involving adolescents in medication decision-making, teaching adolescents to self-monitor (i.e., track physiological, behavioral, or emotional changes), and establishing behavioral contingency systems to reinforce medication adherence, may be important developmental considerations.

As mentioned above, although psychopharmacological treatment for ADHD in youth is effective in managing both the core symptoms of ADHD and improved functioning in life domains, most notably, the school environment (Pelham et al., 1985; Rapport et al., 1986), there are significant racial differences in medication utilization among youth with ADHD. For instance, Rowland et al. (2002) found that among children diagnosed with ADHD, 76 % of Caucasian children were receiving medication while only 56 % of African American children were receiving medication treatment for their ADHD. Overall, past studies have indicated that on average, African American children with ADHD are approximately half as likely to receive stimulant medication relative to Caucasian children (e.g., Lefever, Dawson, & Morrow, 1999; Zito, Safer, dosReis, Magder, & Riddle, 1997). Furthermore, Olfson, Gameroff, Marcus, and Jensen (2003) analyzed healthcare data from two nationally representative surveys of the U.S. general population and documented over a three-fold increase in the treatment of ADHD between 1987 and 1997. The authors noted a trend wherein the use of psychostimulant medication for treating ADHD increased significantly while the number of visits for psychosocial treatment tended to decrease over the 10-year period. Consistent with Rowland et al. (2002), Olfson et al. (2003) found that despite increases in psychostimulant treatment utilization, racially diverse children continued to receive such treatment at a far lower rate relative to Caucasian children.

More recent research relating to psychostimulant treatment for child ADHD indicates that rates of access to pharmacological treatment for African American children with ADHD are significantly higher than those documented previously (e.g., Bussing, Schoenberg, & Perwien, 1998; Graves & Serpell, 2013). Utilizing data from a large, nationally representative sample of children grades K-8 in special education classes with diagnoses of ADHD, Graves and Serpell (2013) found that with a confirmed diagnosis of ADHD, the rates of access to pharmacological treatment remain high across children from all racial groups. Results from this study challenge previous findings from earlier regional studies documenting unmet need among students in special education classes at risk for ADHD generally and African American students specifically (Bussing, Schoenberg, et al., 1998).

In addition to financial and logistical barriers to pharmacological treatment for African American children with ADHD, there is also research indicating that African American caregivers' attitudes toward psychostimulant medication may hinder African American families from initiating pharmacological treatment for ADHD (dosReis, Butz, Lipkin, Anixt, Weiner, & Chernoff, 2006). The authors surveyed 57 African American caregivers of children with ADHD on both negative and positive attitudes toward stimulant medication and found that 17 % held beliefs that pharmacological treatment would lead to drug abuse in their children, 22 % believed that ADHD medication is overprescribed, and 21 % believed that medication would have adverse side effects. Eight-eight percent of the sample held beliefs that medication would ameliorate symptoms of ADHD and 90 % believed that in being prescribed by a physician, such medication was safe. Nevertheless, the majority (71 %) had initial concerns with medication founded in information they had received from the press and nearly half of the sample preferred to seek counseling as opposed to initiating medication treatment. These findings highlight the need to (1) improve health communication messages with regard to pharmacological treatment for ADHD, including the various types of medications, benefits of pharmacotherapy, and possible side effects, and (2) improve access to behavioral interventions, so that those African American parents who are uncomfortable with medication are able to still engage in intervention to help their child with ADHD.

Combined Treatments for ADHD The most prominent study guiding our knowledge about the effectiveness of BPT for child ADHD comes from results of the aforementioned MTA (MTA Cooperative Group, 1999), the first study to investigate pharmacotherapy and behavioral treatment for child ADHD in a large sample of children. Results indicated that although children in all treatment groups evidenced a reduction in symptomatology over time, those in the combined treatment and medication management arms showed significantly greater short-term gains relative to those children assigned to behavioral treatment or community care. Furthermore, although combined treatment and medication management did not differ significantly in head-to-head comparisons, those in the former group demonstrated a greater short-term reduction in oppositional/aggressive as well as internalizing symptoms, teacher-rated social skills, parent–child relationships, and reading achievement scores). Thus, it is evident that while neither combined treatment nor medication management demonstrated superiority on primary outcome measures, a combined treatment approach may be associated with important secondary gains. In examining treatment effectiveness among racial minorities in the MTA study, results indicate that even after controlling from demographic variables such parent level of education and family income, African American children were most likely to benefit from combined treatment relative to other treatment arms (Arnold et al., 2003). Thus, it is clear that different treatment modalities for ADHD or combinations of such modalities may be more effective for different racial groups.

Brown et al. (2005) reviewed studies comparing combined treatments for ADHD to those with a single modality. A small number of studies included those comparing various drug combinations to manage children's symptoms of ADHD (e.g., Garfinkel, Webster, & Sloman, 1981; Schecter & Timmons, 1985). The bulk of studies, however, examined the effectiveness of nonpharmacological interventions, such as behavior or cognitive therapy and stimulant medication (e.g. Carlson, Pelham, Milich, & Dixon, 1992; Long, Rickert, & Ashcraft, 1993; Pelham et al., 1993). Results from such studies unequivocally found combined pharmacological and psychosocial treatment to be more effective in treating child ADHD than either modality alone (Brown et al., 2005).

Although clearly efficacious treatments for child ADHD are available, the research to date, particularly with regard to psychosocial treatments has tended to utilize primarily Caucasian samples (Chronis et al., 2006). Thus, the literature body serves to provide some guidance for clinicians working with African American youth with ADHD, but there is still much research to be done.

ADHD Treatment Disparities

In general, despite comparable prevalence rates of the disorder, relative to Caucasian children, African American children are underdiagnosed and also under-treated for ADHD (Eiraldi, Mazzuca, Clarke, & Power, 2006). This trend is upheld by large-scale studies indicating that while nearly 11 % of Caucasian children are diagnosed with ADHD, only 9 % of African American children receive such diagnoses (Rowland et al., 2002). Furthermore, results from a another study conducted by Bussing, Gary, Mills, and Garvan (2003) indicated that among elementary-school children at risk or ADHD (i.e., via high scores on parent and teacher rating scales), 82 % of Caucasian students received ADHD diagnoses while only 28 % of African American children received diagnoses, close to a three-fold gap.

Despite the elevation in ratings of ADHD symptoms as well as potentially greater treatment-responsiveness mentioned above, compared to Caucasian children, African American children are less likely to receive a diagnosis of ADHD (dosReis, Zito, Safer, & Soeken, 2001; Stevens, Harman, & Kelleher, 2005) and less likely to receive treatment (Stevens et al., 2005). These diagnostic and treatment disparities are concerning for clinicians and researchers, given that efficacious interventions for ADHD exist. While the under-diagnosis of ADHD logically contributes to treatment disparities, research indicates that other variables, such as economic resources (Bussing, Gary, et al., 2003), aversive attitudes toward ADHD treatment, parental beliefs related to the etiology of ADHD (Bussing, Gary, et al., 2003; Bussing, Zima, Perwien, Belin, & Widawski, 1998), and levels of knowledge about ADHD (Bussing, Schoenberg & Perwien, 1998) may also contribute to such disparities.

To evaluate how these disparate variables may be related to treatment disparities among African American children with ADHD, Eiraldi et al. (2006) have outlined a model of help-seeking behaviors specific to ADHD. Eiraldi et al.'s help-seeking model is comprised of four distinct steps: (1) problem recognition; (2) decision to seek help; (3) selection of services; and (4) utilization of services. Eiraldi et al. posited that such stages are influenced not only by characteristics of ADHD, but also by predispositions to service use (i.e., predisposing characteristics), variables that may enable or hinder service pursuit (i.e., barriers and facilitators), and factors that may promote or dampen continued service use (i.e., service promoters). At each help-seeking step, factors related to race and/or ethnicity may impact a family's progress through each step. Because a family typically traverses steps in this help-seeking model in a unidirectional fashion (e.g., completing one step, then moving forward to the next), it seems likely that a barrier or hindrance at any one step would preclude progression on to the next.

In regards to a caregiver's decision to seek help for their child's ADHD, parental beliefs both about the etiology of ADHD as a disorder and the treatment for ADHD shape African American parent's help-seeking behaviors. Specifically, research suggests that relative to African American parents, Caucasians are more likely to attribute ADHD to genetic causes, to conceive of it as a chronic disorder, and to ascribe to medical labels. By contrast, African American parents are more apt to view ADHD as a character trait of the child (i.e., being poorly behaved) (Bussing, Schoenberg & Perwien, 1998; Bussing, Zima, Gary, & Garvan, 2003). Indeed Bussing, Schoenberg and Perwien (1998); Bussing, Zima, et al. (2003b) and Bussing, Zima, et al. (2003) have surmised that parents who ascribe to biomedical explanations for their child's ADHD are more likely to seek medical help (e.g., visit a pediatrician). Likewise, parents who ascribe to non-medical beliefs as to the etiology of such problems are more apt to seek non-medical help (e.g., engage in evermore harsh punishment strategies in an attempt to manage child behavior, consult laypersons or members of the community).

Research suggests that in comparing African American to Caucasian parents, differences in beliefs about ADHD medication treatment exist as well. Specifically, Wilson and Jennings (1996) found that African American parents were less accepting of medication for ADHD, reported greater concerns of medication side effects, and preferred behavioral management to medication in addressing child symptoms. Similarly, as mentioned above, dosReis et al. (2003) found that African Americans were more apt to believe that medication treatment would result in drug abuse or negative side effects and preferred to seek counseling (as opposed to medication) for their children's ADHD.

Also impacting parents' decision to seek help is knowledge about ADHD. Bussing, Schoenberg and Perwien (1998) conducted a large-scale study of families of children with ADHD and detected significant racial differences in ADHD as well as its treatment. Specifically, when comparing Caucasian and African American parents, the latter were significantly less likely to have heard of ADHD, were less likely to adopt a medical label for the disorder, less likely to have received information pertaining to the disorder from a medical professional, and held fewer beliefs that ADHD could be treated effectively. As Eiraldi et al. (2006) highlighted, those with greater knowledge of the disorder and its treatments are more likely to seek help.

Other factors influencing help-seeking behaviors among parents of children with ADHD are expectation or attitudes that parents hold toward mental health services. In evaluating parent's expectations about mental health services, Richardson (2001) found that African American parents held significantly more negative expectations relative to Caucasian parents. Blanchard and Lurie (2004) in part attribute African Americans' negative expectations for services to past negative experiences with the health care system, suggesting that past negative experiences might predispose a parent to have negative expectations for future health care system encounters (e.g., for their child's ADHD).

Clear disparities exist in the rates of mental health services utilization by African Americans compared to other racial groups, such that African American youth are less likely to receive services (Garland et al., 2005; Zimmerman, 2005). While there is some research to suggest the lower rates of service use may be partially accounted for by higher rates of economic hardship in this population (Bussing, Gary, et al., 2003), more recent research suggests that disparities persist even after sociodemographic variables such as family income and parent education level are taken into account (Alegria et al., 2012; Cummings & Druss, 2011; Garland et al., 2005; Zimmerman, 2005).

Other factors which may play a role in lower levels of mental health services use by African American youth include beliefs about the causes of mental health problems, expectancies regarding treatment and the importance of family and social support in this population. For instance, Bussing, Gary, Mills, and Garvan (2007) found that African American parents are more likely to attribute child ADHD symptoms to sugar intake as opposed to a medical explanation (i.e., neurodevelopmental disorder). As a result, African American parents may be less likely to seek pharmacological treatment for their child's ADHD and more likely to attempt dietary changes at home. Furthermore, African American youth and their caregivers endorse negative expectations of the experience of mental health treatment (Lindsey, Chambers, Pohle, Beall, & Luckstead, 2013), which may decrease the likelihood that they will present for services. In addition, the role of social support and networks in this population may lead to a preference for relying on family members and community members when experiencing mental health issues. Presenting for mental health treatment may be seen as a "last resort" for African American youth and their families, thereby reducing the numbers of African American families seeking services. For example, African American youth report a preference for seeking help from family members as opposed to professional service providers when experiencing symptoms of depression (Lindsey, Joe, & Nebbitt, 2010). Furthermore, "caregiver strain," or the extent to which mental health problems are perceived as burdensome and overwhelming by parents or caregivers, has been found to be a significant predictor of treatment seeking (Shin & Brown, 2009). African American families report lower levels of caregiver strain relative to Latino families or Caucasian families, which may reflect a stronger reliance on social network support relative to the health care system (Shin & Brown, 2009). Thus, there are multiple factors which may be relevant to consider in understanding why African American youth receive mental health services treatment at lower rates than their Caucasian peers. .

In summary, several evidence-based interventions have been developed to treat ADHD. Such interventions span early childhood and adolescence and are adapted to meet the developmental needs of youth with ADHD. Furthermore, interventions address symptoms and impairment across a number of domains, including at home and within the family, at school, and with peers. As noted above, few researchers have specifically examined the efficacy and effectiveness of ADHD treatment for African American children. Further research is sorely needed to evaluate the extent to which these evidence-based interventions are generalizable to African American children with ADHD.

Clinical Implications and Future Directions for Research

The research reviewed herein has implications for both clinical practice and future research. It has been suggested that culture is not always considered in approaches to ADHD treatment (Bussing et al., 2007; Smith, Rodríguez, & Bernal, 2011). Given the sociocultural barriers that face many African American families (e.g., cultural mistrust, negative experience with healthcare providers and systems, lower expectations of the benefits of clinical care), finding culturally sensitive ways to increase attendance and attract families to treatment is paramount (Smith et al., 2011). Treatment dropout negatively affects not only the family, but also mental health providers. Cultural adaptation procedures are used to address the cultural barriers and maximize evidence-based mental health treatment for minority cultures (Bernal, Jiménez-Chafey, & Rodríguez, 2009; Coard, Foy-Watson, Zimmer, & Wallace, 2007; Lau, 2006). Additionally, increased attrition and potential lower levels of treatment acceptability within a specific cultural group may be evidence of poor ecological validity of a specific treatment for that specific cultural group and may provide evidence for the cultural adaptation of an evidence-based treatment in order to increase client engagement and hopefully improve client outcomes (Domenech-Rodriguez & Bernal, 2012). Therefore, modifications made to current empirically supported treatments may improve treatment engagement for African American families in need of treatment. Below, we discuss some examples of potential modifications, including the involvement of extended family members, formally addressing the issue of parental and familial stress and other cognitions, and integrating African American parenting strengths and beliefs systems.

Involving Extended Family Members The family structure of African American families often involves members of the community or extended family (Harrison, Wilson, Pine, Chan, & Buriel, 1990; Hines & Boyd-Franklin, 2005). Historically, African American families have valued this interdependence on other members of one's family (Harry, 1994). Often role flexibility exists in terms of definition and responsibilities of family members. Thus, a grandparent may be a secondary caregiver or a primary disciplinarian for a child.

Research has indicated that dual-parent or multigenerational households are associated with improved cognitive and socioemotional outcomes for children, particularly for families in which a parent is seeking assistance from a grandparent (Pilkauskas, 2014). Therefore, in these families that rely on other family members for support, if parents were interested in BPT for their child, these additional members of the family must be viewed as agents of behavior change along with the parent. It may prove useful for therapists to ask these extended family members to attend parent-training sessions and discuss their experiences with the child. Having other caretakers such as grandparents attend parent training would allow therapists to ascertain whether the child is receiving consistent rewards and punishments for the same target behaviors. Within African American families, mental health professionals should be open to working with extended family members as therapy gains could possibly be undermined by those who are unfamiliar with the behavioral principles taught during sessions (Hines & Boyd-Franklin, 2005).

It may also be useful to work with key members of a community to conduct behavior management training courses and promote positive mental health well-being. In the African American community, the church is often recognized as one of the oldest and most influential formal institutions trusted by members of this racial group, providing psychological, social, and emotional support (Adksion-Bradley, Johnson, Sanders, Duncan, & Holcomb-McCoy, 2005). Therefore, co-leading parenting groups with community leaders, such as a minister, may improve attendance, facilitate the feeling of communalism found within the African American church, and help to improve African American perceptions of mental health treatment (Adksion-Bradley et al., 2005; Canino & Spurlock, 2000).

Addressing Parental Cognitions and Stress African American parents of children with ADHD may experience heightened stress and often have negative thoughts about seeking treatment for their child. Lack of prior knowledge of ADHD and misconceptions about its origin can contribute to parents' negative thoughts about treatment seeking (Sciutto, 2015). Improving understanding of ADHD using relevant health communication messaging and incorporating more formal stress management, including ongoing assessments, into existing parent training sessions for African American families may therefore prove useful (Capage, Bennett, & McNeil, 2001; dosReis, Mychailyszyn, Myers, & Riley, 2007). Stress management is rarely examined specifically in African American families of children with behavior problems, but the addition of stress management to BPT has been studied. For example, one study by Printz and Miller (1994) found that for families participating in an enhanced family treatment in addition to standard family treatment, the dropout rate was reduced. This enhanced family component allowed parents to discuss whatever stressful issues they wanted even if those issues were not related to their child. The researchers also found that type of treatment influenced the relationship between family adversity and dropout such that those who were in the enhanced family treatment condition and experienced significant adversity did not drop out as often as those parents in the standard family treatment condition who were labeled as high-adversity.

In relation to African American parents, Bussing et al. (2003) explored differences in reported social support networks between racial groups in a largely low SES sample of parents. African American parents described smaller social support networks but more frequent contact and higher levels of support than Caucasian parents. Hence, some African American parents may not seek treatment for their child's difficulties due to their confidence in their social support network to help them through familial problems. In assessing the effects of the familial support system within African American families, Taylor (2010) found that the familial support system can moderate the effects of stress in African American families. Taylor's (2010) findings also suggest that strong family support networks were associated with improved parenting control and organization. Researchers should study the inclusion of family members and other members of the family's social network (e.g., community members) in the psychosocial treatment for ADHD to see whether there is incremental gain over only one parent's involvement (typical of BPT).

Cognitions may be an important mediator of parenting stress for parents of hyperactive children, such that a positive attributional style and high self-efficacy may both serve to decrease the level of stress that a parent feels when parenting a child with behavior problems (Mash & Johnston, 1990). Given the importance of family support within the African American community, studies suggest increased parenting satisfaction when the support network is utilized in treatment seeking. Further, researchers have found that African American parents may differ from Caucasian parents in their levels of parenting self-efficacy; specifically, African American mothers express higher levels of parenting self-efficacy (Hill & Tyson, 2008). As such, it may be that African American parents may judge BPT to be unnecessary and not able to meet their needs regarding their child with ADHD; more research is needed specific to African American parents of children with ADHD to test this hypothesis (Bussing et al., 2007). Until such research is completed, it is important for therapists to be aware of issues such as cognitions and social support early on in treatment as possible influencers on their client's engagement in therapy.

Integrating African American Strengths and Belief Systems Ogbu (1981) wrote about the importance of understanding parenting in a cultural ecological perspective and, thus, in African American families, certain parenting strategies may be used to develop certain competencies deemed important by the culture to pass along to children. Many African American parents view racial socialization to be a vital task in their role as parents (Hughes et al., 2006). Having conversations with their children about race (e.g., racial pride, preparation for bias) is associated with many positive youth outcomes including decreased psychopathology (e.g., Stevenson, Reed, Bodison, & Bishop, 1997), particularly when combined with supportive parenting practices (Elmore & Gaylord-Harden, 2013). Therefore, parenting interventions that ignore this critical aspect of African American parenting may be less acceptable to African American parents.

Other important values in the African American culture may include spirituality, familial strength, a positive self-image, and perseverance (e.g., Hill, 1977). Considering these parenting values while treating a child with ADHD may influence treatment adherence. In choosing target behaviors for a Home DRC, for example, a therapist would want to consider what misbehavior is impairing to their African American clients. For example, given that familial strength is an African American family value, then for a child who does not get along with his sibling, it may be important to improve this relationship earlier in therapy than would typically be done for other families. BPT programs that address issues that are against African American value systems may serve as yet another barrier to mental health treatment (Neal-Barnett, 1996).

Kinship support is another culturally bound value within the African American culture (Hill, 1977). As noted above, African American caregivers have been found to strongly value support from other family members. García Coll et al. (1996) posited that this kinship support is an adaptive strategy developed to combat the racial and economic stressors part of daily life for many African Americans. Such support from family moderates the relationship between economic disadvantage and maternal and youth psychological well-being in African American families, as researchers have found an attenuated relationship between the two in African American families with high levels of kin support (Taylor, Budescu, Gebre, & Hodzic, 2014). Therefore, the importance of family, including extended family members should be a consideration for therapists in treatment. Extended family may be a vital form of social support for an African American parent of a client and may serve to help encourage that parent as they seek and engage in treatment for their child with ADHD.

African American parents also have strengths that can be used to specifically reinforce the therapist–client relationship. Researchers have found that African American parents believe that they are very invested in their child, are very connected to their family, are good communicators, and involve male role models in their child's life (Hurd, Moore, & Rogers, 1995). Additionally, African American parents' levels of parenting self-efficacy are significantly related to their judgment of the importance of instilling cultural pride (Hill & Tyson, 2008). Therefore, for those African American parents with high levels of self-efficacy, it may be important to them to discuss issues related to racial socialization and their parenting behaviors during therapy. Additionally, around elementary school, racial differences emerge with regard to communication about negative events and emotions, such that African American parents engage in more of this type of communication than Caucasian parents (Hill & Tyson, 2008). As many children with ADHD obtain a diagnosis around this stage of development, therapists should consider the importance of this type of communication within the African American culture, particularly when BPT skills such as labeled praise and time out are discussed.

If deemed appropriate for their clients, therapists should be aware of these strengths and praise the parents for their dedication to their child. Additionally, therapists should take care in the way that they point out current parenting behavior that seems discordant with BPT (e.g., low levels of warmth). Due to cultural mistrust and their investment in their children's lives, as well as possible high levels of parenting self-efficacy, some African American parents may not be receptive to therapists informing them of their role in their child's poor behavior. Boland (1993) suggested that parental dropout can be avoided by projecting a message to parents focused on the avoidance of blame for this misbehavior. Finally, African Americans prefer non-written materials (Bussing, Schoenberg & Perwien, 1998), and therefore written materials (e.g., fact sheets) may not be an appropriate vehicle to impart knowledge to clients. By focusing on strengths and values often identified in and by African American parents, clinicians may more appropriately tailor treatment.

Conclusions

In sum, there is a great need for more research specifically examining African American children with ADHD. To date, little is known about African American girls with ADHD and how they may differ from African American boys with ADHD. Additionally, there is little research about the specific acceptability of different BPT skills or the more recently developed OST interventions for African American parents. Although not within the ADHD literature, evidence exists to support key differences in parenting that may be culture-bound. Until more research is done with youth with ADHD, therapists should work to integrate and be aware of the literature (primarily within the developmental psychology field) common to African American families in general, such as belief in promoting a positive racial identity and high parenting self-efficacy. Given the barriers discussed earlier, rather than focus on therapist-perceived parenting deficits, therapists may better engage African American families in treatment by acknowledging strengths within the family (e.g., open communication, appropriate limit-setting) and discussing how evidence-based treatment may fit within their needs and parenting style.

Researchers should endeavor to include more representative samples in their studies and to publish subsample analyses on African American youth with ADHD. Although there have been calls for such research over the past several decades, many studies fail to even report the number of African American participants (e.g., reporting "non-white" participant numbers instead, which conceptually is not as useful to interventionists). More detailed within race and between-Race analyses will help to guide possible adaptations that clinicians may need to make when working with African American children with ADHD and their families. Ensuring that current treatments for ADHD in African American children are culturally responsive may prove to increase treatment utilization rates and ultimately improve youth outcomes.

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Part IV

Future Directions

The Way Ahead

19

Cheryl S. Al-Mateen, Alfiee M. Breland-Noble,
and Nirbhay N. Singh

Introduction

In 2001, US Surgeon General, Dr. David Satcher, commissioned *Mental Health: Culture, Race and Ethnicity—A Supplement to Mental Health: A Report of the Surgeon General*, which was the first call describing mental health disparities among African Americans, American Indians, Alaska Natives, Asian Americans, Pacific Islanders, and Latino/Hispanic Americans. In the Supplement, we learned "that racial and ethnic minorities bear a greater burden from unmet mental health needs and thus suffer a greater loss to their overall health and productivity" (US Department of Health and Human Services, 2001, p. 3) than members of the majority culture in the USA. The Surgeon General's report described overall barriers to mental health care including stigma, the cost of treatment, and the lack of awareness and/or bias in many clinicians, settings, and systems. The report also clearly delineated the interplay between historical and ongoing racism and discrimination as they influence the mental health of the members of these groups.

One important feature of the report was its highlighting of resilience among African Americans as a strong protective factor. In addition and of great consequence was that the report was one of the first written documents to acknowledge the diversity of the community, noting specifically that African Americans and Black Americans include immigrants from Africa, the Caribbean, and other parts of the world. The Surgeon General's report was also one of the first to delineate clearly the multiple areas in which African Americans faced challenges impacted by or related to mental and behavioral health. Furthermore, most if not all of the areas noted African Americans as a disparities population in comparison to US whites. For example, significant differences were noted in outcomes related to education, income, homelessness, and marital status that impacted epidemiological studies and should be addressed. African Americans have historically been identified as a "high-need population," but have not necessarily received targeted approaches in mental health care that reflect this label. The Surgeon General's report indicated that when African

C.S. Al-Mateen (✉)
Department of Psychiatry, Virginia Commonwealth University Medical Center, P. O. Box 980489, Richmond, VA 23298, USA
e-mail: calmateen@mcvh-vcu.edu

A.M. Breland-Noble
Department of Psychiatry, Georgetown University Medical Center, 2115 Washington Avenue, Suite 120, Washington, DC 20007, USA

N.N. Singh
Department of Psychiatry and Health Behavior, Medical College of Georgia, Augusta University, 997 St. Sebastian Way, Augusta, GA 30912, USA

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Americans presented with different symptoms than Whites/European-Americans, there was an increased likelihood of and frequent misdiagnosis of similar symptoms. Overall, we have learned that people of African descent in the USA face many challenges to their mental and behavioral health, but lack a strong body of evidence to support the utility of treatment to address the problems identified.

There is a growing body of evidence regarding the use of specific approaches for the assessment and diagnosis of major mental and behavioral disorders in African Americans and Blacks. Among these, cognitive behavioral therapy (CBT) appears to have the most evidence regarding the assessment and management of anxiety, obsessive–compulsive, trauma, and stress-related disorders. While CBT has garnered a lot of attention in recent years, the approach still significantly underrepresents African Americans in major clinical studies of efficacy and effectiveness. This growing body of research focused on major mental illnesses (like depression, substance abuse, anxiety, and trauma). This raises a number of questions including the import of racism and discrimination as they impact African American mental health, the interplay of physical and mental health problems (e.g., obesity and cardiovascular disease), and the potential impact of "missed" trauma (e.g., lack of assessment and/or misdiagnosis of trauma as ADHD or psychosis). The limited evidence in these areas may lead one to wonder if misdiagnosis and/or lack of data on African Americans and Black Americans' mental health may have contributed to the limited data on outcomes from rigorously assessed clinical interventions and treatments. In other words, is it possible that the lack of African American representation in major research studies or the mislabeling of African American youths' mental illness may contribute to low or poor response rates to tested treatments for major disorders?

On a related note, we elected to examine the sole mental health concern in the World Health Organization's top causes of disability worldwide, depression. As one of the leading causes of disability, depression and its correlates must be understood more clearly in African American youth. As well, binge eating disorders and obesity are prevalent among African American youth with each having unique socialization antecedents. We are pleased to be able to highlight culturally relevant diagnosis and treatments that we believe can make a difference to the mental health needs of African American youth.

While there is an emerging body of literature related to the treatment of mental illness in African American youth, access to care remains a significant problem for this population. The Surgeon General's seminal report accurately highlighted that African Americans were more likely to seek care from primary care providers, emergency rooms and to use alternative therapies (such as pastoral or faith based counseling and social support). Overall, this seminal report was a groundbreaking approach to highlighting the resources and needs of racially diverse US populations regarding mental health. Further, it became a touchstone for disparities research and, in particular, for African American mental health professionals, advocates and researchers. Prior to the report, there was little research focused on demonstrated treatment response and benefit equivalence between African Americans and Whites. Dr. Satcher's report paved the way for mental health professionals to learn more in order to provide the best care for African Americans and for racially diverse persons.

Smedley, Stith, and Nelson's (2003) edited book, *Unequal Treatment*, was another groundbreaking work that spoke of health differences and health disparities (see Fig. 19.1).

Smedley et al. noted that healthcare disparities existed, but were unacceptable, because of the accompanying worse outcomes for disparities populations. They recommended increased awareness of these disparities by healthcare providers and the general public. Bias, stereotyping, and clinical uncertainty contributed to these disparities, not only of the provider, but also of health systems, patients, and others involved in healthcare systems. Recommendations were made for research, monitoring of data, and education of health professionals and patients. The need for increased diversity among health care professionals as well as cross-cultural education and the provision of culturally competent care was advocated.

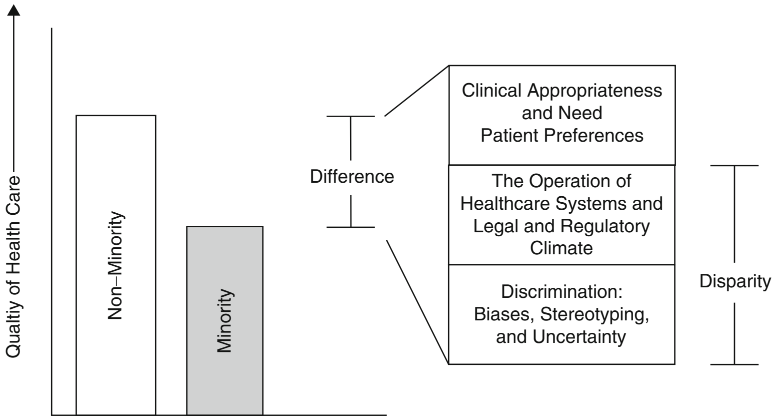

Fig. 19.1 Differences and disparities (adapted from Smedley et al., 2003)

While much of the research and recommendations provided by these two seminal works was groundbreaking, and sorely needed, it focused primarily on the needs of racially diverse adults. Researchers in child and adolescent mental health utilized these frameworks to create a body of literature focused on disparities in youth. For example, the Breland-Noble's (2004) Pathways to Psychiatric Care for Black Youth with Mental Illness expands upon the model presented in *Unequal Treatment* (Fig. 19.2). The Breland-Noble model utilized aspects of the health and mental health disparities literature and combined it with (then) current models of health behavior. Overall, the model is designed to present one mechanism for thinking about how African American youth in particular arrive at psychiatric care noting the interplay among youth, parents, and societal factors in the process of accessing treatment.

Over time, the literature has developed in the use of terms for our population of interest. For example, we are aware that many refer to descendants of Black Africans forcibly transported to the USA as either Black (a racial descriptor) or African American (a descriptor of ethnicity used as a synonym for race). We have generally used the term African American, although most extant literature does not differentiate between African Americans, African-Caribbeans, Afro-British, Continental Africans, or any other combination. In 2013, as we began thinking about this effort, our goal for this volume was to review the current literature on pediatric mental health disparities including the many advances made since the two noteworthy works on disparities and culture in health and mental health. In 2015, as we concluded our work, we realized that although we know more, we have many of the same questions and concerns. We still see conflicting literature, we find that there remains a lack of epidemiological evidence to which we can refer [with the exception of the National Survey of American Life (see Chap. 1)], and we still find an overrepresentation of African American youth at one end of the socioeconomic spectrum, leaving us with very little information on socioeconomically diverse African American youth.

Recognizing that misdiagnosis is a fact, we are excited by what we have learned from this volume that can help us identify strategies to prevent misdiagnosis. For instance, collaboration with culturally competent and experienced providers, community engagement, and self-awareness as researchers and clinicians are all tools indicated in this book as helpful in reducing diagnostic bias. In addition, this book describes tools at our disposal, like the DSM-5 Cultural Formulation, the Cultural Formulation Interview, and Therapeutic Assessment, to guide our process of evaluation. We are pleased to acknowledge the import of these tools and to report evidence of their effectiveness.

Our book also highlights the import of addressing sociocultural factors influencing health behaviors. Specifically, we illuminate some of the root causes of mental health stigma among African Americans and Blacks and suggest additional non-socioeconomic barriers to mental health care.

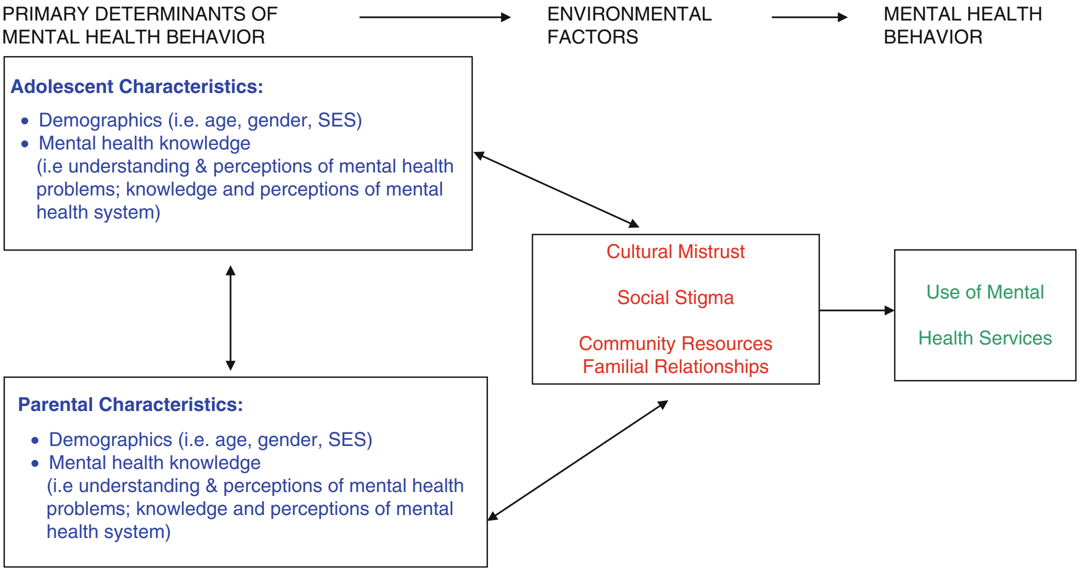

Fig. 19.2 Pathways to psychiatric clinical care for Black adolescents with mental illness (adapted from Breland-Noble, 2004)

While we have gained increased knowledge from our authors regarding contributing factors to stigma and poor treatment initiation, engagement, and adherence, more remains to be done regarding how to help clinicians identify and address mental health stigma in patients. The book's contributors have identified the ways in which mental health literacy and stigma are intertwined and in many instances have offered innovative approaches to addressing and reducing both. For example, there is some discussion of the potential of partnering with primary care providers and settings as well as innovative partnerships with community-based organizations to increase African American uptake of psychiatric care.

In our own clinical work, we have seen first-hand the impact of poor mental health literacy and mistrust of mental health care providers. This mistrust stems from multiple factors including unconscious bias on the part of providers, stigma, and cultural mistrust. We have seen clear evidence of misdiagnosis and have worked with our trainees to encourage thoughtfulness and direct verbalization in order to help to improve diagnosis and outcomes. Directly, but empathetically identifying and addressing these often-awkward topics can help clinicians, parents of mentally ill youth, and ultimately the youth themselves.

As we look at the sometimes untoward effects of medications and misdiagnosis, we are left wondering if misdiagnosis of African Americans may have contributed to untoward effects of the medications matched to the illnesses (mis)diagnosed. For example, the field currently lacks a robust literature on childhood onset schizophrenia or early onset schizophrenia among African Americans. So, how adequately are we addressing psychotic illness in this population of youth? Furthermore, what additional relationships will we find in the area of adverse drug reactions as we learn more about the pharmacogenomics related to mental illness and its treatment? Is it possible that the use of higher than necessary doses of first generation antipsychotics led to increased stigma and refusal to seek treatment—resulting in more severe symptoms and a longer duration of untreated psychosis? It is possible that lack of information on childhood and/or early onset schizophrenia, may have led to poor matching of medications to the illness, resulting in poor outcomes and increased medical mistrust. All of this may have also inadvertently contributed to the overutilization of more restrictive levels of care (due to poorly matched medications for specific illnesses) and higher doses of medication, with more adverse effects. Our understanding about pharmacogenomics and its impact on the metabolism and effect of medication is still in its early stages. However, we are confident that focused, culturally relevant, and personalized mental health care makes a difference and the more we know, the better our implementation and treatment will be for African American and racially diverse youth.

As researchers and clinicians we see similar trends in psychotherapy. Specifically, we continue to note gaps in the research literature regarding what is most effective for African American youth with psychiatric illness. Though we have emerging evidence in the areas of motivational interviewing, cognitive behavioral approaches, and mindfulness-based treatments (particularly for those with chronic stress), African American youth are significantly under-represented among those included in randomized controlled trials of these interventions. Furthermore, when African American youth and families are included in RCTs, samples are more often homogeneic and not representative of the ethnic and socioeconomic diversity existent within the population.

In African American youth, the underdiagnosis of Autism Spectrum Disorders (ASD) continues, negatively impacting access to education and healthcare interventions. The overrepresentation of African American youth in special education (Heller, Holtzman, & Messick, 1982; Osher, Woodruff, & Sims, 2002) is a related disparity with additive and lifelong negative impact affecting youth across the life course. An additional disparity in the behavioral health arena is the overdiagnosis of African American youth with disruptive behavior problems even when their symptoms mirror those for which majority culture youth receive mood disorder diagnoses. All of these factors reflect the ideas contained in the Surgeon General's report on culture and mental health as well as the ideas espoused in the *Unequal Treatment* book. Fortunately, our contributors offer much food for thought to help us better assess, engage, and treat African American youth across the ethnic and sociocultural spectrum using culturally relevant tools.

Regarding mechanisms for reducing access to care disparities, our contributors make a number of strong suggestions that warrant consideration. For example, they suggest that service provision through community-based settings may decrease barriers to care and effectively neutralize stigma. In addition, culturally adapted treatments that account for the unique cultural context of African Americans and Blacks may be of import. They also suggest that innovative approaches to engaging African American youth and families via psychoeducation and outreach might be necessary for increasing the appeal of psychiatric care. Overall, each of the approaches might have great potential for enhancing social support, decreasing behaviors detrimental to good mental health, promoting emotional and behavioral well-being, and for promoting a heightened appreciation of cultural attributes.

While we may be years away from producing large scale clinical trials of mental health interventions to help us understand their utility for African American youth, we are pleased that we have provided an overview of the current state of the literature and articulated the many and varied needs for reducing and eventually eradicating the disparities facing African American youth and families in the area of mental health.

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