

NEUROPSYCHOLOGICAL REHABILITATION



Frontispiece by Hysse Forchhammer

NEUROPSYCHOLOGICAL REHABILITATION

*Proceedings of the Conference on Rehabilitation of Brain
Damaged People: Current Knowledge and Future Directions, held
at Copenhagen, June 15-16, 1987.*

Edited by

Anne-Lise Christensen
Barbara P. Uzzell



Kluwer Academic Publishers
Boston Dordrecht London

Distributors

for the United States and Canada: Kluwer Academic Publishers, 101 Philip Drive, Assinippi Park, Norwell, MA 02061, USA

for the UK and Ireland: Kluwer Academic Publishers, Falcon House, Queen Square, Lancaster LA1 1RN, UK

for all other countries: Kluwer Academic Publishers, Distribution Centre, Post Office Box 322, 3300 AH Dordrecht, THE NETHERLANDS

Library of Congress Cataloging-in-Publication Data

Conference on Rehabilitation of Brain Damaged People: Current Knowledge and Future Directions (1987 : Copenhagen, Denmark)

Neuropsychological rehabilitation : proceedings of the Conference on Rehabilitation of Brain Damaged People—Current Knowledge and Future Directions, held at Copenhagen, June 15–16, 1987/edited by Anne-Lise Christensen, Barbara P. Uzzell.

p. cm.

Includes index.

ISBN-13: 978-1-4612-9801-4

e-ISBN-13: 978-1-4613-1741-8

DOI: 10.1007/978-1-4613-1741-8

1. Brain damage—Patients—Rehabilitation—Congresses.

I. Christensen, Anne-Lise. II. Uzzell, Barbara P. III. Title.

[DNLM: 1. Brain Damage, Chronic—rehabilitation—congresses.

2. Brain Injuries—rehabilitation-congresses. 3. Neuropsychology—congresses. WL 354 C748n 1987]

RC387.5.C68 1987

617'.481—dc19

DNLM/DLC 88-5148

for Library of Congress CIP

Copyright

© 1988 by Kluwer Academic Publishers, Boston.

Softcover reprint of the hardcover 1st edition 1988

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, mechanical, photocopying, recording, or otherwise, without the prior written permission of the publishers, Kluwer Academic Publishers, 101 Philip Drive, Assinippi Park, Norwell, MA 02061.

NEUROPSYCHOLOGICAL REHABILITATION:
CURRENT KNOWLEDGE AND FUTURE DIRECTIONS

CONTENTS

Conference	Program	vii
Foreword	<i>Erik Strömgren</i>	xiii
Preface	<i>Anne-Lise Christensen</i> <i>Barbara P. Uzzell</i>	xv
1.	Contextual Factors in Recovery from Brain Damage <i>Donald G. Stein</i>	1
2.	Neuropharmacology and Brain Damage <i>D. Nathan Cope</i>	19
3.	Current Research in the Neuro- psychological Rehabilitation of Brain Damage <i>Lance E. Trexler</i>	39
4.	Rehabilitation in Traumatic Brain Injury—Observations on the Current US Scene <i>Leonard Diller</i>	53
5.	Future Directions in Rehabilitation of Brain Injured People <i>Barbara Wilson</i>	69
6.	Cost Benefits of Rehabilitation Programs <i>Diane V. Bistany</i>	87

7.	Panel Discussion of Rehabilitation <i>Barbara P. Uzzell</i> <i>Anne-Lise Christensen</i>	103
8.	Program for Rehabilitation of Brain Damage in Denmark <i>Anne-Lise Christensen</i> <i>Mugge Pinner</i> <i>Nicole K. Rosenberg</i>	115
Postscript	<i>Barbara P. Uzzell</i> <i>Anne-Lise Christensen</i>	125
Index		129

CONFERENCE **Rehabilitation of Brain Damaged
People:
Current Knowledge and Future Direc-
tions**

PLACE: Center for Rehabilitation of Brain
Damage
University of Copenhagen, Amager
88, Njalsgade
DK-2300 Copenhagen S., Denmark

TIME: June 15 - 16, 1987

AIM: To present and discuss state of the art
knowledge within neurophysiology,
neurology, neuropharmacology and neuro-
psychology as they apply to the rehabi-
litation of brain damaged adults.

PROGRAM

Monday June 15, 1987

MODERATOR: Erik Strömngren, M.D.
Dept. of Psychiatry,
University of Aarhus,
Aarhus, Denmark.

viii

SPEAKERS:

- | | |
|--|---|
| Donald G. Stein, Ph.D.
Office of the Dean
of Graduate Studies
Rutgers University
Newark, New Jersey, U.S.A. | "Experimental
approaches to the
treatment of brain
injuries" |
| D. Nathan Cope, M.D.
The National Rehabilitation
Hospital
Washington, D.C., U.S.A. | "Neuropharmacology
and brain damage" |
| Lance E. Trexler, Ph.D.
Center for
Neuropsychological
Rehabilitation
Indianapolis, Indiana, U.S.A. | "Current research
in the rehabili-
tation of brain
damage" |
| Leonard Diller, Ph.D.
Rusk Institute of
Rehabilitation Medicine
New York University
Medical Center
New York City, New York,
U.S.A. | "Overviews of
rehabilitation
programs" |
| Barbara A. Wilson, Ph.D.
Department of Rehabilitation
Southampton General Hospital
Southampton, U.K. | "Future directions
in rehabilita-
tion of brain
damage" |
| Diana Bistany
General Reinsurance Company
Stamford, Connecticut,
U.S.A. | "The cost -
benefits of
rehabilitation
programs" |

PANEL:

Tuesday, June 16, 1987

MODERATOR: Barbara P. Uzzell, Ph.D.
Division of Neurosurgery
Hospital of University of PA.
Philadelphia, PA., U.S.A.

PANEL MEMBERS:

D. Nathan Cope, M.D.
Leonard Diller, Ph.D.
Donald Stein, Ph.D.
Lance Trexler, Ph.D.
Barbara A. Wilson, Ph.D.

DANISH PANEL MEMBERS:

Jens Astrup, M.D.
University of Århus
Århus, Denmark

Fin Biering-Sørensen, M.D.
Dept. of Physical Rehabilitation
Rigshospitalet
Copenhagen, Denmark

Anne-Lise Christensen, Ph.D.
Center for Rehabilitation of Brain
Damage
University of Copenhagen
Copenhagen, Denmark

PANEL DISCUSSANTS:

David Ellis, Ph.D.
Brain Injury Center at Plaza Medical
Robert Wood Johnson Medical School at
Camden
Camden, New Jersey, U.S.A.

Arnstein Finset, Ph.D.
Sunnaas Hospital
Nesoddtangen, Norway

Gunilla Øberg, Ph.D.
Dept. of Neurology
Rigshospitalet
Copenhagen, Denmark

Ole Rafaelsen, M.D.
Dept. of Psychiatry
Rigshospitalet
Copenhagen, Denmark

Jarl Risberg, Ph.D.
Dept. of Psychiatry
University of Lund
Lund, Sweden

Ernir Snorrason, M.D.
Dept. of Rehabilitation
Municipal Hospital
Reykjavik, Iceland

Inger Vibeke Thomsen, Ph.D.
Rigshospitalet
Copenhagen, Denmark

Harriet K. Zeiner, Ph.D.
Langley Porter Psychiatric Institute
Dept. of Psychiatry
San Francisco General Hospital
San Francisco, California, U.S.A.

STAFF OF THE CENTER FOR REHABILITATION OF BRAIN DAMAGE:

Anne-Lise Christensen, Director, Neuropsychologist

Inge Albrecht, Clinical Psychologist

Marianne Ewald, Nurse's Aid

Hysse Forchhammer, Psychology Intern

Steen Hartmann, Special Education Teacher

Mette Ishøy, Secretary

Kaj Keiser, Special Education Teacher

Peter Lønberg Madsen, Clinical Psychologist

Finn Malmqvist, Speech Therapist

Grete Mørup, Secretary

Palle Møller Pedersen, Neuropsychologist

Mugge Pinner, Neuropsychologist

Lise Randrup, Neurolinguist

Gitte Rasmussen, Physical Therapist

Nicole K. Rosenberg, Clinical Psychologist

FOREWORD

In early 1985 a grant from the Egmont Foundation made the establishment of the Center for Rehabilitation of Brain Damage in Copenhagen possible. This meant the realization of a plan with which Anne-Lise Christensen had been occupied for years. Through her work in psychiatric and neurosurgical wards she had acquired a deep insight in the problems of the brain damage, and through visits to the leading centers within the field of brain damage rehabilitation she had become intimately acquainted with the most modern trends in research and practice which was insufficiently developed in Denmark. When finally the possibility of establishing the center came closer, it was obvious that Anne-Lise Christensen would be the right person to organize this institution and to become its leader.

Two years later, when the building-up of the Center had been finished and the work was running smoothly, it was felt natural to mark this accomplishment by the arrangement of an international conference on rehabilitation of brain damage. On this occasion, a number of leading specialists gave lectures on many different aspects of the topic. This provided great incentives for those interested in the field in Denmark.

The present volume, containing the lectures from the conference, can also be regarded as a tribute to Anne-Lise Christensen and her colleagues, in recognition of their accomplishments within the field of neuropsychology and rehabilitation of the brain damaged.

Erik Strømberg

Chairman of the Board of Directors
Center for Rehabilitation of Brain Damage

PREFACE

Brain damage has become synonymous with a loss of skills, while rehabilitation of brain damaged individuals has become known as a method to restructure lives within a social context. Until recently, rehabilitation of brain damaged patients has been limited, confined mainly to medical treatment and treatment of lost physical skills. Within the last 10 years changes in rehabilitation have been emerging, as a body of knowledge from neurophysiology, neurosurgery, neuropharmacology and neuroimaging with an integration of neuropsychology into it.

Increasingly, it has become clear that the tragedy of brain damaged victims is more curtailments or loss of life transactions, than a loss of physical skills. It is now apparent that intervention has to be based not only on integrated knowledge about anatomical location of lesions, plasticity of the brain, influences of neurobiology and neurochemistry, but mainly on integration of psychological treatment strengthening life transactions. It is essential that the role of the investigator becomes that of a collaborator, who reaches out, rather than that of a test-wielder. This new wave rehabilitation has influenced the scientific and practical aspects of the establishment of the Center for Rehabilitation of Brain Damage at the Psychological Laboratory, University of Copenhagen, Denmark.

The significance of new wave rehabilitation is the realization that knowledge needs to be integrated. Clinically this means that specialists from different fields talk to one another, recognize the individuality of the brain damaged victim, develop the most comprehensive program and address the cost-benefit.

In order to increase awareness of this new kind of rehabilitation, to stimulate professionals already engaging in integrated rehabilitation, and to proliferate its growth in Scandinavia, a two day conference was held on June 15 and 16, 1987 in Copenhagen. The conference set the stage for an interaction of various specialists who learned about each other's viewpoints and research, and then redirected their beliefs accordingly. Researchers mainly from the United States, from the United Kingdom, and from Scandinavia with various backgrounds were invited to participate. The exchange showed how an integrated rehabilitation approach unfolds, with one point-of-view incorporating items from another standpoint.

Because we felt the exchange was timely, important and needed to be available for others not attending the conference, this book was undertaken. We hope the reader will share our enthusiasm about incorporating concepts from other fields into strategies for intervention, will see the cost-benefits from such an integrated approach to a brain damaged individual, and will be stimulated by the concepts and ideas presented in this book.

We want to thank all persons who contributed time and effort to make this book possible. We especially want to thank the contributing authors who presented their points-of-view, and the conference participants who provoked understanding through their queries and shared experiences. The final appreciation expressed is for the generosity of the Egmont Foundation in making the conference possible and for the financial support in the initial phases of the Center for Rehabilitation of Brain Damage.

Anne-Lise Christensen
Barbara P. Uzzell

NEUROPSYCHOLOGICAL REHABILITATION