Forms of Interaction in Virtual Space: Applications to Psychotherapy and Counselling

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Abstract. Electronic virtual communication is likely to become increasingly used and relied upon in the future, particularly because en-face interactions between client/patients and professionals will become less convenient and health systems overloaded. However, this raises interesting issues about the form of communication which is best suited for the imparting of authoritative advise to clients/patients, how to ensure that advice is treated seriously and followed, the types of condition and situation that most lend themselves to virtual (as opposed to en-face) therapeutic interactions, and how behaviours in virtual situations varies from en-face reality. The present paper discusses some of these issues and data will be presented from preliminary studies aimed at addressing the above issues.

Keywords: Virtual, en-face, psychotherapy, counseling, avatars, second- life, personality, youth.

1 Introduction

Many professionals believe that the applications of virtual and distant interactions will become increasingly used in the future, as health systems become overloaded, and more sophisticated intelligent software becomes available. The benefits would be substantial and would include the preservation of anonymity (if required), particularly for disorders that clients/patients find embarrassing to discuss en-face. Some groups of individuals might be especially likely to use virtual interaction in preference to en-face interactions; for example teenagers, who are usually very familiar with electronic media and are used to obtaining information on-line, may benefit since this is a client group that is often hard to access by conventional means [1]. Any such group that tends to rely especially heavily upon informal advice from peers [see 1] is likely to be drawn to the use of virtual interactions in a similar way, and thus it is important to ensure that the information that is imparted and received is accurate, also that the advice is regarded as authoritative so that it is followed, and clients/patients feel comfortable about returning to follow-up interactions. Clearly, in countries where distances are significant, on-line therapies and advice becomes especially important, and it is interesting that early advice help-lines were pioneered in Australia, for example.

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The availability of high speed broadband has meant that en-face interactions can also be used for interaction, supplementing the familiar e-mail and electronic messaging services. However, not all users of Skype report feeling comfortable when interacting, particularly with unfamiliar people. The anonymity of less personal interactive media can potentially be an advantage. Moreover, depending on the particular medium, it is possible to revisit conversations and maintain records of interactions with some media but not (easily) others. Clients/patients will often report that they feel reassured by being able to return to conversations and revisit interactions with those providing advice.

1.1 What Areas of Concern Might Be Addressed?

Clearly, the above also relates in important ways to the concept of universal access. The widespread use of a range of media is likely to encompass a much broader social group than would be expected from the use of any single medium. Of course, this may depend upon the topic concerned. Therapeutic or advisory sessions might cover a range of issues, but those featuring commonly to date include marriage and relationship counselling advice, deficient social skills, sexual health and fertility, depression and suicidal tendencies, anxiety and associated neurotic disorders, financial worries and associated family tensions, smoking and smoking cessation, stress counselling including examination stress, parenting issues, gender identity, among others. Clearly, the approach to the design of counselling sessions and advisory interactions must be tailored to the issue concerned, and most likely to the individual, taking into account their circumstances and personality. Since the availability of on-line counselling and therapy is a relatively new phenomenon, such issues have not been addressed, so that a one size fits all approach tends to have been adopted. Barak, Klein and Proudfoot [2] comment that the field [variously termed web-based therapy, e-therapy, cybertherapy, eHealth, e-Interventions, computer-mediated interventions, on-line therapy and on-line counselling] has "suffered from a lack of clarity and consistency... inconsistent, diffuse, incoherent and sometimes even perplexing" (pp.4/5). The availability of suitable software and interactive media has been regarded as the primary goal, and only now might it be possible to use software to collect data on such things as whether individuals in virtual interactions speak as much as in en-face situations, whether they feel able to raise sensitive issues, how content they feel with the interactions, whether they take advice as seriously when obtained from an on-line medium, whether they are as likely to follow advice as when prescribed by a professional en-face, and how these issues relate to the type of issue being discussed. For disorders that involve any form of depersonalisation, for example, it might be positively disadvantageous to deal with a client/patient in a virtual medium. On the other hand, a patient suffering from a neurotic fear might be encouraged to use software and pre-recoded guidance, to take therapy at their own pace, gradually exposing themselves to stimuli that approximate more closely the stimulus that they most feat while desensitising themselves in a way that maintains their comfort and dignity. The availability of software that can be easily authored to suit client needs can facilitate such developments.

Sessions can be organised in a variety of ways, depending on the resources available, the suitability of media, and the degree of interaction required. It is not the

intention of this project, in the first instance, to deal with areas that are highly ethically sensitive or where any shortcoming in the advice provided might pose potential risks to clients. There is a wide range of issues that have been addressed via on-line services, which might be addressed using web-based educational interventions, self-guided web-based therapeutic interactions, or human-supported web-based therapeutic interactions [2]. At one end of the scale, en-face advice and direct personal interactions can be indispensable, particularly in an area such as PTSD, or depression and suicide-prevention counselling. In many clinical situations, therapist may find it impossible to discuss a sensitive issue with a client without having feedback from facial expressions, hesitations and other features of conversations that are hard to obtain from virtual media. At the opposite end of the scale, it is possible that many concerns of clients/patients can be effectively met via the use of information alone – frequently asked questions (FAQs) can be accumulated over time and new clients may find that their concerns are so similar to those of many previous enquirers that the provision of personalised advice is unnecessary. Between these extremes is, for example, interaction via avatar representations. Here, the individual is able to interact in a relatively personal way but their identity is disguised and they may feel more comfortable in raising sensitive issues within this medium. An example might be a virtual consulting room in a Second Life environment. The advantage here is that the advisor/therapist is aware that they are dealing with a particular client and advice can still be tailored to the needs of that individual; clearly, however, in that case there is no saving on advisor/therapist time, since their presence is always required in the interaction. Group sessions involving interacting avatar representations in Second Life might hold possibilities, of course. As Barak et al. [2] have pointed out, feedback is a crucial issue, and the total amount provided to a patient can vary from minutes to hours, and "Immediacy of response is dependent upon which communication modality is being employed... e-mails and forum postings generally provide delayed feedback, whereas chat room/instant messaging sessions, Skype/telephone calls. Webcam and face-to-face meetings all provide immediate feedback; yet these different communication modalities also vary in the degree of direct human contact". Clearly this needs to be addressed and quantified for the different areas for which web-based advice might be sought.

2 Features of Computer- Mediated Communication

Computer- mediated communication (CMC) especially the internet, has become one of the key areas for psychological research today due to a variety of reasons. Firstly, increasing number of computer and internet users all over the world. Secondly, a high volume of interpersonal communication takes place over the internet [3] implying that there is significant amount of social behaviour worthy of exploration [4]. And finally, a few features of CMC such as visual anonymity and limited channel have been implicated in a variety of online behaviours of individuals in the form of self-disclosure and in many cases heightened private self awareness.

Recent studies have shown that there is a higher level of self- disclosure due in CMC than en- face due to visual anonymity and heighted private self- awareness [5, 6, 4, 7, 8, 9]. Even medical patients tend to report more symptoms and undesirable

behaviours when interviewed by a computer as appose to en- face [10]. Moreover, in a study conducted by Ferriter [11] on 'computer aided interviewing and psychiatric social history', it was demonstrated that patients spoke more truthfully and openly during interviews conducted using CMC compared to en- face. Other studies have also shown that individuals are more inclined to higher levels of self- disclosure on electronic surveys as compared to paper based surveys. Participants gave out more information about socially undesirable behaviours while taking psychological measures on electronic survey systems [12]. Such studies lend evidence to the fact that "technology can gather information of greater quantity and higher quality than clinician- administered assessments" [13].

3 Therapy or Games?

The interactive session does not need to be in the form of one to one dissemination of information and advice; a self-help client-centred approach can be adopted via the use of a computer gaming format that allows clients to direct their own therapy [1]. Working in Dublin, Ireland, Coyle and colleagues used Personal Investigator (PI), which employs a detective narrative, in which the teenager hunts for solutions to personal problems. There is collaboration between client and therapist but the emphasis is on clients' "[setting] their own therapeutic goals, recognise their own strengths and values, identify people in their lives who can help them, teach new coping strategies and focus on their future not the past". The approach appears to have been successful with a small group of clients having anxiety and behaviour problems, attempted suicide and social skills difficulties.

Recently another study using a game format has been conducted where participants are allowed to explore their own identities via a multi- player online role playing game. The players have to create an "embodied representation of themselves" [14]. After creation, the characters have to travel the virtual world gaining knowledge, skills and defeating monsters. The results of the study showed that the players on an average rated their representation as having more favourable attribute than themselves and this tendency was more prominent in players with lower psychological well-being [14]. The authors have further discussed that the discrepancy between the actual- self and ideal- self may be reduced through the creation and enacting of their ideal self online. These findings can have a great impact in terms of using virtual therapy with individuals having low self- esteem, depression or addiction.

4 Online Self- Representation: Avatars and Second- Life

Today, a number of virtual spaces online allow users to communicate and interact by creating an avatar that is a digital representation of themselves. Over the years, a variety of 3-D virtual worlds have developed such as Second- Life, There and Active Worlds which are mainly based on avatar interactions. Such virtual worlds create strong feelings of social presence among the users thereby, increasing the "feeling of togetherness" [15]. This may be a contributing factor to a number of therapeutic applications that that have evolved on Second- Life. For example, Brigadoon- a

private island created to provide a virtual space for individuals with Asperger's Syndrome. The aim is to provide the users with a platform to enhance their social skills by interacting with other people experiencing the same problems. Similarly Live2Give, another second life island, is targeted at individuals affected by cerebral palsy. Recently, a new island, Eureka has been developed for addiction prevention and treatment by assisting people in getting greater self- insight and improving their lifestyles [15].

Research in the area has led to several interesting findings on avatar behavior in virtual space. In a recent study, it was found that users generally tended to adapt their avatars to reflect their own appearance as a result of which they experienced heightened private self- awareness [9]. In another study, it was demonstrated that users revealed more personal information about themselves when interacting with avatars as oppose to real humans [16]. Hence, one might conclude that avatars may lead to the enrichment of interpersonal communication thereby, strengthening the interpersonal bond among users. This may be a key factor in the case of a therapeutic setting, especially while therapists engage in rapport building with their respective clients.

5 Activity-Passivity

An issue that frequently arises in the context of 3-D interactive activities, where a participant interacts with a 3-D environment, is the issue of activity-passivity. It is widely assumed that active engagement with an environment leads to better learning (usually, spatial learning) than passive observation of the exploration of another individual. However, that has not always been found to apply. Whether activity is beneficial is arguably due to several factors, including the familiarity of the user with the medium – usually computer-related experience [17]. It is important to take into consideration the familiarity of users of therapeutic interactive environments with the medium, to ensure that they can fully attend to the information being provided rather than being distracted by their operation of input devices and coping with interface requirements. However, passive engagement could be beneficial in some instances. In the case of an individual who is hesitant about seeking advice and unsure of what questions to raise with their virtual therapist, it might be reassuring for that individual to observe a recorded interaction between two virtual agents, especially if there are frequently asked questions and frequently raised issues that could be incorporated into the interaction, that would have the effect of answering their own uncertainties without their having to divulge their identity or interact directly. Once again, this issue could potentially load on to the concept of universal access. Often the concept of universal access is applied to situations in which individuals might be prevented or discouraged from engagement as a result of physical or cognitive disabilities, although it should be recognised that access may be restricted for reasons such as gender and personality. Adolescents, in particular, are apparently discouraged from engagement with therapists because they feel that no-one can help with their difficulties, or that the problem, they feel, is too personal to divulge, or that they should handle the problem on their own [18]. In some cases it might be a helpful start to a therapeutic process if such individuals can be reassured that their problem is more

widespread than they think and that others are wrestling with the same issues that confront them.

Ethically, it is, of course, essential that steps are taken to ensure that individuals who need alternative forms of therapeutic intervention are provided with those interventions or with the routes to accessing them, and that the use of 3-D interactive software does not delay their obtaining en face assistance when it is needed.

6 Individual Differences among Potential User Groups

The one size fits all approach can ignore important individual differences, such as gender differences in computer use and familiarity which might differentially affect an individual's comfort in using computer based media and interface familiarity can affect the level of spare cognitive capacity that an individual can bring to bear on the therapeutic interaction, if some users could be so engaged with use of the medium that this detracts from their engagement with the information gathering and interaction processes. Second, personality differences (introversion, openness) can influence the degree to which a computer-mediated interaction is attractive to the client. In fact, one of the factors that might indicate the level of self- disclosure online may be the personality type of an individual. According to Suler [8], individuals with histrionic personality types may be very open and emotionally expressive whereas compulsive individuals maybe more restrained and controlling. So far, research in this area has shown that individuals with a more trusting personality in terms of a secure attachment style and generalised feelings of trust tend to engage in more disclosure type related behaviours [5]. However, it will be extremely useful to carry out research with a focus on personality types in order to predict the circumstances under which different individuals will be more predisposed to greater self-disclosure. One may also wonder whether people with avoidant personality styles may benefit from various anonymous online environments or if the different CMC formats such as chat forums, web – sites, emails and online groups, may be detrimental to people with dissociative disorders by leading to fragmentation of different online personalities [19].

Other factors that may determine the 'suitability' of any individual for online therapy [19] could be, firstly, the individual's knowledge about the psychological aspects of online communication such as lifestyle in cyberspace, online groups, relationships and social other activities. Secondly, an individual's reading and writing skills: Some people might prefer one over the other and this might have a significant impact on text based CMC. Thirdly, cross cultural differences which might be magnified during online therapy, especially if the client and therapist are from different countries. Fourthly, an individual's medical condition or certain disabilities or medications that might affect his or her motivation to use online therapy. Few individuals might prefer CMC to en-face communication as they might have social phobia or might want to conceal their physical appearance [19]. Finally, an individual's attitude towards online therapy may also affect the efficiency of intervention employed by the counsellor or therapist. It is envisaged that brief evaluative exercises could be used to decide, in particular instances, to which medium an individual would be best suited.

7 Primary Objectives of the Project

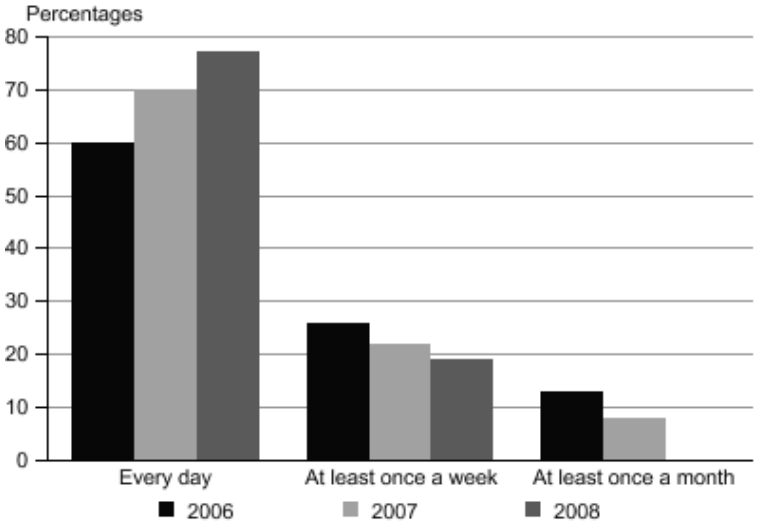
1. To use suitable questionnaires to identify those issues for which individuals report that they would be most, or least, likely to prefer to access on-line information and support rather than conventional consultations.
2. To identify the best means of conveying information associated with particular disorders or concerns, comparing media such as e-mail, Skype, or avatar-based interactions.
3. To assess the degree to which individuals feel comfortable in using a particular medium, relating this to demographic, gender and personality measures.
4. To assess whether the medium employed preserves essential features of the conventional consultation situation; whether clients feel as confident in posing questions or challenging the advice provided.
5. To assess whether clients who participate in web-based consultations take advice seriously and the extent to which they are likely to follow advice delivered by various media.
6. To identify the degree to which the above issues are specific to the area concerned, comparing among the various issues for which web-based advice is most likely to be sought.

7.1 Target Population: Younger People

For the purposes of this project an effort will be made to understand the online advice and counselling needs of the younger population (between 16 and 25 years of age) for the prevention of mental health difficulties. The main motive for choosing this particular group is because it has been observed that young people are generally reluctant to seek help due to a variety of reasons such as feeling that their problem is personal to them, or no one will understand them, and hence no one may be able to help and also due to concerns regarding confidentiality [1, 20] due to which counsellors and therapists often find it difficult to engage young people in the therapeutic process [18]. Therefore, young people who are faced with mental health issues or other personal problems are more likely to turn to informal sources such as their peer groups and even the internet in order to obtain more information and seek help [21]; using the internet anonymously and in an autonomous manner [20]. Hence, as Coyle and colleagues [22] have rightly said “it is incumbent upon mental health services to find ever more creative ways to engage young people and in ways that reflect their own cultures and forms” (p. 27).

Also, it is important to note that young people use the internet regularly for various activities like communication, social networking, information seeking and much more. In the United Kingdom, nearly 77% of young adults aged 16- 24 years reported using the internet everyday in 2008 [23]. This percentage is very likely to have increased today.

Due to the increase in online activities of the younger population today, the Internet becomes a strategic tool to provide this generation a means for online mental health promotion through early intervention and prevention [20].



(Source: Office for National Statistics, 2008)

Fig.1. Frequency of Internet use: by recent users aged 16 to 24, UK

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