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Internet help and therapy for addictive behaviour

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Abstract

Counselling and psychotherapy have entered the computer age. Psychological advice, help and treatment for those with addictive behaviours are no exception. The paper overviews the main issues in the area and approaches the discussion acknowledging that online therapy has to be incorporated within the overall framework of the need for clinical assistance. The paper also provides brief overviews of what types of online help and therapy are available. This paper makes particular reference to online help for problem gamblers and will overview a recent study that evaluates the effectiveness of an online help and guidance service for problem gamblers.

Keywords: Online therapy; Online help; Addiction; Problem gambling; GamAid

Internet help and therapy for addictive behaviour

Many therapists remain suspect about the new and growing field of 'behavioural telehealth'. Some have claimed that Internet therapy is an oxymoron because psychotherapy is based upon both verbal and nonverbal communication (Segall, 2000). Since online relationships can be as real and intense as those in the face-to-face world (Griffiths, 2001a), there is little surprise that clinicians are beginning to establish online therapeutic relationships.

To date there have been a growing number of non-empirical papers about various issues concerning online therapy including challenges and initiatives in this growing field (Sanders & Rosenfield, 1998; Griffiths, 2001a), ethical issues (Bloom, 1998), mediation of guidance and counselling using new technologies (Tait, 1999), and perspectives on family counselling (Oravec, 2000). There have also been a growing number of empirical reports utilising online therapy. These include its use in treating anxiety and panic disorders (Klein & Richards, 2001), eating disorders (Zabinski, Pung, Wilfley, *et al*, 2001), post-traumatic stress disorder (Lange, Van De Ven, Schrieken, *et al*, 2000), and individuals with recurrent headaches (Stroem, Patterson & Andersson, 2000). Every one of these empirical studies showed significant improvements for those treated using online therapy.

Psychological advice, guidance, help and treatment for addicts are no exceptions. This paper therefore overviews some of the main issues involved. The paper also makes particular reference to online help for problem gamblers and overviews a recent study by the author that evaluates the effectiveness of an online help and guidance service for problem gamblers.

Background: Online therapy and addictive behaviour

For the fifth time in a week, a 32-year old man comes home very late from a 12-hour drinking session. Unable to sleep, he logs onto the Internet and locates a self-help site for alcoholics and fills out a 20-item alcohol consumption checklist. Within a few hours he receives an e-mail that suggests he may have an undiagnosed drinking disorder. He is invited to revisit the site to learn more about his possible drinking disorder, seek further advice from an online alcohol counsellor and join an online alcoholism self-help group.

On initial examination, this fictitious scenario appears of little concern until a number of questions raise serious concerns (Rabasca, 2000a). For instance, who scored the test? Who will monitor the self-help group? Who will give online counselling advice for the alcohol problem? Does the counsellor have legitimate qualifications and experience regarding alcohol problems? Who sponsors the website? What influence do the sponsors have over content of the site? Do the sponsors have access to visitor data collected by the website? These are all questions that may not be raised by an addict in crisis seeking help.

The Internet could be viewed as just a further extension of technology being used to transmit and receive communications between the helper and the helped. If addiction practitioners shun the new technologies, others who might have questionable ethics will likely come in to fill the clinical vacuum. It has been claimed that online therapy is a viable alternative source of help when traditional psychotherapy is not accessible. Proponents claim it is effective, private and conducted by skilled, qualified, ethical professionals (King, *et al*, 1998). It is further claimed that for some people, it is the only way they either can or will get help (from professional therapists and/or self-help groups).

Types of 'Online Therapy'

There appear to be three main types of website where psychological help is provided - information and advice sites, websites of traditional helping agencies and individual therapists (Griffiths & Cooper, 2003) although in this paper, sites will be categorized in terms of their primary function. That is: 1) information dissemination, 2) peer-delivered therapeutic /support / advice (such as a self-help support group) and 3) professionally delivered treatment. Psychological services provided on the Internet range from basic information sites about specific disorders, to self-help sites that assess a person's problem, to comprehensive psychotherapy services offering assessment, diagnosis and intervention (Rabasca, 2000a).

Information dissemination: These are sites mainly dedicated to educational and consciousness raising issues. They are often in the form of webpages that provide easily understandable pieces of helpful information on a range of disorders, self-help checklists, and links to other helpful websites. There appear to be numerous places to get information about addiction and addiction-related problems. Quality information websites are hosted by a variety of sources including individuals who serve as their own 'webmaster' to not-for-

profit organisations to private companies. Some illustrative examples of these are listed in the next section.

Peer-delivered therapeutic support and advice: These sites are often set up by traditional helping agencies that have expanded their services to include an online option for clients. Typically, this is done by e-mail and is usually free of charge (for example, the Samaritans). Other examples include various 12-Step groups who meet online. Many online therapy services are available for those suffering almost any kind of addiction. In the world of online therapy, a person can be alone in their living room while they attend an AA meeting joined by a couple of dozen people from various countries, or be visiting an Internet counsellor in the United Kingdom without having left their home in the United States. There are a number of 12-Step groups that meet regularly in this way and they are often open for 24 hours a day. Cooper (2001) reported that about 70% spoke of how they benefited from their exposure to and involvement with GAweb, an online peer support group.

There are a number of very good reasons why the Internet is an excellent medium for most forms of self-help. Research has consistently shown that the Internet has a disinhibiting effect on users and reduces social desirability (i.e., users do not alter their responses in order to appear more socially desirable). This may lead to increased levels of honesty and, therefore, higher validity in the case of self-disclosure. As well as disinhibition effects, the Internet is a non-face-to-face environment that is perceived by many users to be anonymous and non-threatening. The Internet may, as a consequence, provide access to 'socially unskilled' individuals who may not have sought help if it were not for the online nature of the self-help group.

There are also generalist type services (usually e-mail only) in which people usually require a one-off piece of advice from someone who may have no psychological training. These services are usually (but not always) free of charge and may be part of an online magazine. It is highly unlikely that the sort of general advice given at these sites will be of much help to addicts as their problem is, by its nature, very specific. The most help they would probably get is an onward referral (e.g., to a face-to-face self-help group such as AA, GA, etc.).

Professionally delivered treatment: These sites are becoming more and more abundant and can be set up by individual counsellors and/or psychotherapists. They usually operate in one

of two ways - either by written answers to e-mail inquiries or a real time conversation in an Internet chat room. Professionally delivered treatment is mainly available from individual practitioners' websites. There are a few examples of not-for-profit organisations beginning to offer these types of services. Thus far, for-profit companies appear to primarily use the Internet for information dissemination and for promoting their face-to-face services.

Many therapists have now set up their own Internet sites to deliver behavioural services although the number of sites that specialize in addictions appears to be growing all the time. The kinds of services offered vary in type and expense. They can include 'ask five questions for free'-type sites, therapists moderating a group chat online, e-mail correspondence, private instant messaging, and/or video-conferencing.

Advantages of Online Therapy for Addicts

There are many advantages and disadvantages of online therapy. The main ones have been overviewed elsewhere (Griffiths, 2001a; Cooper & Griffiths, 2003) and are outlined below in relation to gambling addicts to give the reader specifics in relation to a particular type of problem. However, it is assumed that almost all of these advantages and disadvantages apply to other types of addiction. **Here are the main advantages:**

Online therapy is convenient: Online therapy is convenient to deliver, and can provide a way to seek instant advice or get quick and discreet information. Online therapy avoids the need for scheduling and the setting of appointments, although for those who want them, appointments can be scheduled over a potential 24-hour period. For gambling addicts who might have a sense of increased risk or vulnerability, they can take immediate action via online interventions, as these are available on demand and at any time. Crisis workers often report that personal crises occur beyond normal office hours, making it difficult for people to obtain help from mental health clinicians and the like. If a problem gambler has lost track of time at the casino only to depart depressed, broke, and suicidal at 4am in the morning, they can perhaps reach someone at that hour who will be understanding, empathic and knowledgeable.

Online therapy is cost effective for clients: Compared with traditional face-to-face therapies, online therapy is cheaper. This is obviously an advantage to those who may have low financial resources. It may also allow practitioners to provide services to more clients because less time is spent travelling to see them. Since there are financial consequences for

a gambling addict, cheaper forms of therapy such as online therapy may be a preferred option out of necessity rather than choice. The cost factor is particularly important in countries where people are often forced to pay for health care (for example, in the United States). Arguably, one needs Internet access, but this too is becoming more freely available, and conceivably, even those who are homeless would be able to utilize such services through places like public libraries.

Online therapy overcomes barriers that otherwise may prevent people from seeking face-to-face help: There are many different groups of people who might benefit from online therapy. For example, those who are: (i) physically disabled, (ii) agoraphobic, (iii) geographically isolated and/or do not have access to a nearby therapist (military personnel, prison inmates, housebound individuals etc.), (iv) linguistically isolated, and (v) embarrassed, anxious and/or too nervous to talk about their problems face-to-face with someone, and/or those who have never been to a therapist before might benefit from online therapy. Some like those with agoraphobia and/or the geographically isolated, might be more susceptible to activities like online gambling because they either tend not to leave home much or they do not have access to more traditional gambling facilities (like casinos, bingo halls, racetracks and so forth). It is clear that those that are most in need of help (whether it is for mental health problems, substance abuse or problem gambling) often do not receive it.

Online therapy helps to overcome social stigma: The social stigma of seeing a therapist can be the source of profound anxiety for some people. However, online psychotherapists offer clients a degree of anonymity that reduces the potential stigma. Gambling may be particularly stigmatic for some because they may find it is a self-initiated problem. Others have found that the issue of stigma has caused some problem gamblers to avoid seeking treatment (Hodgins & el-Guebaly, 2000). Furthermore, in an exploratory study, Cooper (2001) found that there was a correlation between higher levels of concerns about stigma and the absence of treatment utilization, and that lurking (i.e., visiting but not registering presence to other users) at a problem gambling support group website made it easier for many to seek help including face-to-face help.

Online therapy allows therapists to reach an exponential amount of people: Given the truly international cross-border nature of the Internet, therapists have a potential global

clientele. Furthermore, gambling itself has been described as the 'international language' and has spread almost everywhere within international arenas.

It would appear that in some situations, online therapy can be helpful - at least to some specific sub-groups of society, some of which may include addicts. Furthermore, online therapists will argue that there are responsible, competent, ethical mental health professionals forming effective helping relationships via the Internet, and that these relationships help and heal. However, online therapy is not appropriate for everyone. As with any new frontier, there are some issues to consider before trying it. The next section briefly looks at some of the criticisms of online therapy.

Disadvantages of Online Therapy

The growth of online therapy is not without its critics. The main criticisms (Griffiths & Cooper, 2003) that have been levelled against online therapy include:

Legal and ethical considerations: Since cyberspace transcends state and international borders, there are many legal and regulatory concerns. For example, client/doctor confidentiality regulations differ from one jurisdiction to another. It may not be legal for a clinician to provide chat-room services to patients who are in a jurisdiction in which the clinician is not licensed. Furthermore, some patients may be excluded from telehealth services because they lack the financial resources to access the Internet. One potential ethical and legal dilemma is the extent to which service quality can be ensured. It is possible that individuals who register to provide counselling services online do not have the qualifications and skills they advertise. They may not even be licensed to practice. There are also issues regarding the conduct of practitioners engaged in all forms of telecommunication therapy. For example: issues of informed consent, the security of electronic medical records, electronic claims submissions, etc. (Foxhall, 2000).

Confidentiality: Online therapy may compromise privacy and confidentiality, particularly if a skilled computer 'hacker' is determined to locate information about a particular individual. No online therapist can confidently promise client confidentiality given the limitations of the medium. However, there are some sites that offer secure messaging systems that offer the same level of protection as banking institutions.

Severity of client problems: Some clients' addiction problems may be just too severe to be dealt with over the Internet. To some extent, there can always be contingencies, but because people can come from anywhere in the world and have a multitude of circumstances, online clinicians may be hard-pressed to meet everyone's needs.

Client referral problems: One obvious difficulty for the counsellor is how to go about making a referral for an addict in a faraway town or another country.

Establishing client rapport: It could perhaps be argued that there might be difficulty in establishing rapport with someone that the therapist has never seen. This is an interesting area where clearly more information is needed. One might also argue that because the addict is in a more equal relationship with the therapist, they will feel more comfortable. Coupled with this, online therapy leads to a loss of non-verbal communication cues such as particular body language, voice volume and tone of voice. Furthermore, the lack of face-to-face interaction between addict and therapist could result in a wrong referral or diagnosis.

Commercial exploitation: Consumers theoretically are not always as anonymous as they might think when they visit health sites because some sites share visitors' personal health information with advertisers and business partners without consumers' knowledge or permission (Rabasca, 2000b). In relation to gambling addicts, this is a real issue. By virtue of posting to places such as GAweb with an accurate e-mail address shown, online casinos have the potential to collect such information in order to later send junk e-mail promoting their casino websites.

Convenience: Although convenience was outlined as an advantage in the previous section, it can also have a downside. For instance, it may mean that the addict is less likely to draw on their own existing coping strategies and use the online therapist as a convenient crutch (something which is actively discouraged in face-to-face therapy).

Online help for problem gamblers: The *GamAid* case study

Wood and Griffiths (2007) reported one of the first ever studies that evaluated the effectiveness of an online help and guidance service for problem gamblers (i.e., *GamAid*). The evaluation utilized a mixed methods design in order to examine both primary and secondary data relating to the client experience. In addition, the researchers posed as

problem gamblers in order to obtain first hand experience of how the service worked in practice.

GamAid is an online advisory, guidance and signposting service whereby the client can either browse the available links and information provided, or talk to an online advisor (during the available hours of service), or request information to be sent via email, mobile phone (SMS/texting), or post. If the problem gambler connects to an online advisor then a real-time image of the advisor appears on the client's screen in a small web-cam box. Next to the image box, is a dialogue box where the client can type messages to the advisor and in which the advisor can type a reply. Although the client can see the advisor, the advisor cannot see the client. The advisor also has the option to provide links to other relevant online services, and these appear on the left hand side of the client's screen and remain there after the client logs off from the advisor. The links that are given are in response to statements or requests made by the client for specific (and where possible) local services (e.g., a local debt advice service, or a local Gamblers Anonymous meeting).

A total of 80 clients completed an in-depth online evaluation questionnaire, and secondary data was gathered from 413 distinct clients who contacted a *GamAid* advisor. Wood and Griffiths (2007) reported that the majority of clients who completed the feedback survey were satisfied with the guidance and "counselling" service that *GamAid* offered. Most participants agreed that *GamAid* provided information for local services where they could get help, agreed that they had or would follow the links given, felt the advisor was supportive and understood their needs, would consider using the service again, and would recommend the service to others. Furthermore, the addition of being able to see the advisor via a web-cam was reassuring. Being able to see the advisor enabled the client to feel reassured, whilst at the same time, this one-way feature maintained anonymity, as the advisor cannot see the client.

The evaluation found that the majority of those who responded to the online feedback survey agreed that *GamAid* helped them to consider their options, made them more confident in help, helped them to decide what to do next, made them feel more positive about the future, provided useful information for local help which they intended to follow up through the links provided.

An interesting aside is the extent to which *GamAid* was meeting a need not met by other gambling help services. This was examined by looking at the profiles of those clients using

GamAid in comparison with the most similar service currently on offer, that being the UK *GamCare* telephone help line. The data recorded by *GamAid* advisors during the evaluation period found that 413 distinct clients contacted an advisor. The types of gambling engaged in and the preferred location for gambling showed little similarity to the data collected in the two British national prevalence surveys to date (Sproston, Erens & Orford, 2000; Wardle, Sproston, Orford, Erens, Griffiths, Constantine & Pigott, 2007). Unsurprisingly (given the medium of the study), online gambling was the single most popular location for clients to gamble with 31% of males and 19% of females reporting that they gambled this way. By comparison, the *GamCare* helpline found that only 12% of their male and 7% of their female callers gambled online. Therefore, it could be argued that the *GamAid* service is the preferred modality for seeking support for online gamblers. This is perhaps not surprising given that online gamblers are likely to have a greater degree of overall competence in using, familiarity with, and access to Internet facilities. Problem gamblers may therefore be more likely to seek help using the media that they are most comfortable in.

GamAid advisors identified gender for 304 clients of which 71% were male and 29% were female. By comparison, the *GamCare* helpline identified that 89% of their callers were male and 11% were female. Therefore, it would appear that the *GamAid* service may be appealing more to women than other comparable services. There are several speculative reasons why this may be the case. For instance, online gambling is gender-neutral and may therefore be more appealing to women than more traditional forms of gambling, which (on the whole) are traditionally male-oriented (with the exception of bingo) (Wardle et al, 2007).

It is likely that online gamblers are more likely to seek online support than offline gamblers. Women may feel more stigmatised as problem gamblers than males and/or less likely to approach other help services where males dominate (e.g., GA). If this is the case, then the high degree of anonymity offered by *GamAid* may be one of the reasons it is preferred. Most of those who had used another service reported that they preferred *GamAid* because they specifically wanted online help. Those who had used another service reported that the particular benefits of *GamAid* were that they were more comfortable talking online than on the phone or face-to-face. They also reported that (in their view) *GamAid* was easier to access, and the advisors were more caring.

One of the key strengths of the study was that it used a variety of methods to collect data and information including an online survey, secondary data from online advisors, and anonymous trials and testing of the services. Although there are clearly issues surrounding self-selection, online questionnaires are particularly useful for the discussion of sensitive issues that participants may find embarrassing in a face-to-face situation (such as problem gambling). The nature of this medium means that a relatively high degree of anonymity can be maintained, and participants may feel more comfortable answering sensitive questions on their computer than in a face-to-face situation. The survey data were necessarily self-report although the collection of the data online may have lowered social desirability and increased levels of honesty. *GamAid* appears to meet the stated aims and objectives of the evaluation. However, it is evident that a longer-term follow-up evaluation study is needed to determine the effectiveness of the service over time.

Conclusions

Online therapy may not be for all addicts and those participating should at the very least be comfortable expressing themselves through the written word. In an ideal world, it would not be necessary for those in serious crisis - some of whom could be addicts (where non-verbal cues are vital) - to need to use computer-mediated communication-based forms of help. However, because of the Internet's immediacy, if this kind of therapeutic help is the only avenue available to individuals and/or the only thing they are comfortable using, then it is almost bound to be used by those with serious crises. Rigorous evaluation studies are needed (particularly given the rate at which new sites are springing up). These refer not only to sites that specifically deal with addictions, but all sites.

It could be the case that online therapy's most effective use might be as either a way of communicating information in response to clients' statements and questions, or a form of 'pre-therapy'. This latter suggestion is interesting as it has traditionally been assumed that for 'pre-therapy' to occur, the client and practitioner had to be in the same room. However, it could equally be argued that websites could be used to augment treatment. Websites could provide cognitive information to supplement treatment or provide instant peer support groups when addicts need most help. For instance, chat rooms can be used by addicts desiring more anonymity than is possible at a 12-Step meeting. Furthermore, public message boards and e-mails can provide greater efficiency and productivity than in-person visits to a self-help group.

There is a paucity of empirical data that assesses the efficacy and feasibility of online therapy for addicts. To date, the limited studies carried out (mostly with very small sample sizes) have focussed on client and provider satisfaction with the technology rather than the effectiveness of the technology in delivering services. Future research should address the following areas (all of which could involve addiction research):

- The differential effects of various online therapeutic interventions among clinical populations. There would be great benefit from learning much more about counselling versus online peer-support groups.
- The effect online therapy has on therapeutic relationships. Such relationships will be much more equal in future with the therapist being more of a coach to a much more informed consumer.
- Whether providers and consumers find online therapy interventions accessible and desirable.
- Do demographic characteristics (like socio-economic status, ethnicity, culture, geographic location, age and gender) affect a patient's access to and acceptance of online therapy and if so, how and why? The same questions could also be applied to therapists regarding their acceptance and receptivity. Miller (1989) has written about how positive expectancies of therapists have contributed to improved patient outcomes. If clinicians do not believe in online help but were forced to provide it by their employer, would this be subtly communicated to the clients and their treatment undermined?

This paper has demonstrated a need for evaluative research regarding online therapy, particularly since there is a lack of an evidence-base to govern this growing practice. Furthermore, papers like this aim to help to engage consciousness-raising activities and thereby alert clinicians to the future possibilities of practice behaviour. After all, clinicians have been constantly striving to better serve their clients from the earliest days of mental health practice. It seems apparent that the Internet and computer-mediated communication are here to stay. Therefore, there is a need to focus on exactly how these innovations will impact on our field keeping clients' best interests in mind

References

- Bloom, W.J. (1998). The ethical practice of Web Counselling. *British Journal of Guidance and Counselling*, 26 (1), 53-59.
- Cooper, G. (2001). *Online assistance for problem gamblers: An examination of participant characteristics and the role of stigma*. Doctoral dissertation, Ontario Institute for Studies in Education/University of Toronto.
- Foxhall, K. (2000). How will the rules on telehealth be written? *APA Monitor on Psychology*, 31 (4), 38.
- Griffiths, M.D. (2001a). Online therapy: A cause for concern? *The Psychologist: Bulletin of the British Psychological Society*, 14, 244-248.
- Hodgins, D. C. & El-Guebaly, N. (2000). Natural and treatment-assisted recovery from gambling problems: A comparison of resolved and active gamblers. *Addiction*, 95, 777-789.
- Klein, B. & Richards, J.C. (2001). A brief Internet-based treatment for panic disorder. *Behavioural and Cognitive Psychotherapy*, 29, 113-117.
- Lange, A., Van De Ven, J-P. Q.R., Schrieken, B.A.L., Bredeweg, B., & Emmelkamp, P.M.G. (2000). Internet-mediated, protocol-driven treatment of psychological dysfunction. *Journal of Telemedicine and Telecare*, 6, 15-21.
- Miller, W. R. (1989). Increasing motivation for change. In: Hester, R. K. & Miller, W. R. (Eds.), *Handbook of Alcoholism Treatment Approaches*. New York: Pergamon Press.
- Oravec, J.A. (2000). Internet and computer technology hazards: Perspectives for family counselling. *British Journal of Guidance and Counselling*, 28(3), 309-324.
- Rabasca, L. (2000a). Self-help sites: A blessing or a bane? *APA Monitor on Psychology*, 31 (4), 28-30.
- Rabasca, L. (2000b). Confidentiality not guaranteed by most health Web sites, report finds. *APA Monitor on Psychology*, 31 (4), 13.
- Sanders, P. & Rosenfield, M. (1998). Counselling at a distance: Challenges and new initiatives. *British Journal of Guidance and Counselling*, 26(1), 5-10.
- Segall, R. (2000). Online shrinks: The inside story. *Psychology Today*, May/June, 38-43.
- Sproston, K., Erens, R. & Orford, J. (2000). *Gambling Behaviour in Britain: Results from the British Gambling Prevalence Survey*. London: National Centre for Social Research.
- Stroem, L., Pattersson, R. & Andersson, G. (2000). A controlled trial of recurrent headache conducted via the Internet. *Journal of Consulting and Clinical Psychology*, 68, 722-727.
- Tait, A. (1999). Face-to-face and at distance: The mediation of guidance and counselling through the new technologies. *British Journal of Guidance and Counselling*, 27(1), 113-122.
- Wardle, H., Sproston, K., Orford, J., Erens, B., Griffiths, M.D., Constantine, R. & Pigott, S. (2007). *The British Gambling Prevalence Survey 2007*. London: The Stationery Office.

Wood, R.T.A. & Griffiths, M.D. (2007). Online guidance, advice, and support for problem gamblers and concerned relatives and friends: An evaluation of the *GamAid* pilot service. *British Journal of Guidance and Counselling*, 35, 373-389.

Zabinski, M. F., Pung, M. A., Wilfley, D. E., Eppstein, D. L., Winzelberg, A. J., Celio, A., & Taylor, C. B. (2001). Reducing risk factors for eating disorders: Targeting at-risk women with computerized psychoeducational program. *International Journal of Eating Disorders*, 29, 401-408.