Cyber-Disorders:
The Mental Health Concern for the New Millennium

by

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Abstract

Anecdotal evidence has suggested that mental health practitioners' report increased caseloads of clients whose primary complaint involves Internet. However, little is known about the incidence, associated behaviors, attitudes of practitioners, and interventions involved related to this relatively new phenomenon. Therefore, this study surveyed therapists who have treated clients suffering from cyber-related problems to gather such outcome information. Respondents reported an average caseload of nine clients who they classified as Internet-addicted, with a range between two to fifty clients treated within the past year. Five general subtypes of Internet addiction were categorized based upon the most problematic types of online applications, and they include addictions to Cybersex, Cyber-relationships, online stock trading or gambling, information surfing, and computer games. Treatment strategies included cognitive-behavioral approaches, sexual offender therapy, marital and family therapy, social skills training, and pharmacological interventions. Based upon their client encounters, efforts to initiate support groups and recovery programs specializing in the treatment of Internet addiction were being considered. Finally, based upon the findings, this paper examines the impact of cyber-disorders on future research, treatment, and public policy issues for the new millennium.

Introduction

Among a small but growing body of research, the term *addiction* has extended into the psychiatric lexicon to identify problematic Internet use associated with significant social, psychological, and occupational impairment.[1-10] Symptoms include a preoccupation with the Internet, increased anxiety when off-line, hiding or lying about the extent of on-line use, and impairment to real-life functioning. In particular, this research argued that addictive use of the Internet directly lead to social isolation, increased depression, familial discord, divorce, academic failure, financial debt, and job loss.

Such cyber-related issues not only appear to be a growing social concern, but anecdotal evidence has suggested that mental health practitioners ranging from college counselors, martial therapists, to drug and alcohol counselors report increased caseloads of clients whose primary complaint involves Internet. A few comprehensive treatment centers for Computer/Internet Addiction Recovery have even emerged in response to these new cases. However, outcome data related to the reason for referral, primary complaints, the associated behaviors, attitudes of practitioners, and interventions applied to this new phenomenon have yet to be collected.

Therefore, this study is the first to survey therapists who have treated clients whose primary or underlying complaint involves the Internet to gather such outcome data and to utilize the results for future research, treatment, and public policy recommendations.

Methods

Subjects:

Participants were therapists who responded to: (a) postings on relevant electronic discussion groups (e.g., NetPsy) and (b) those who searched for the keywords "Internet" or "addiction" on popular Web search engines (e.g., Yahoo) to find The Center for On-Line Addiction web site where the survey existed.

Measures:

A survey was constructed that could be administered and collected electronically. The survey consisted of both open-ended and closed-ended questions and was divided into three sections. The first section contained questions related to incidence rates, primary complaints, the presence of other addiction problems or psychiatric conditions, and interventions utilized. The second section assessed therapists' attitudes regarding addictive use of the Internet on a five-point Likert scale that ranged from (1) strongly agree to (5) strongly disagree. The last section gathered demographic information such as gender, years of practice, professional affiliation, and country of origin.

Procedures:

An offline pilot study first established that the survey instrument was reliable and valid. The survey then existed as a Web page implemented on a UNIX-based server that captured the answers into a text file. Answers were sent in a text file directly to the principal investigator's e-mail box for analysis. Results yielded a total of 44 responses within a six-month period with 35 valid responses. These responses were then analyzed using frequency counts, means, standard deviations, and content analyses.

Results

The sample included 23 females and 12 males with an average of 14 years of clinical practice. Their affiliations ranged as follows: 65% worked in private practice, 20% were employed by a community mental health clinic, 10% worked in a university counseling center, and 5% were employed in a drug and alcohol rehabilitation center. Approximately 87% of survey respondents were from the United States, and 13% were from United Kingdom and Canada.

Table 1 suggests that clients are most likely to present with direct complaints of compulsive Internet use, relationship difficulties, or a prior addiction problem and are less likely to present with a psychiatric illness. Respondents noted that 80% of their clients used email, 70% chat rooms, 10% newsgroups, 30% interactive online games, and 65% used the World-Wide-Web

(primarily to view pornography or to utilize online trading or auction house services). Respondents reported an average caseload of nine clients who they classified as Internet-addicted, with a range of two to fifty clients treated within the past year. It should be noted that 95% of the respondents reported that the problem was more widespread than these numbers indicate.

Internet Addiction is a broad term covering a wide-variety of behaviors and impulse-control problems.13 Qualitative results gleaned from this study suggest that five specific sub-types of Internet addiction could be categorized:

1. **Cybersexual Addiction** - compulsive use of adult web sites for cybersex and cyberporn.
2. **Cyber-relationship Addiction** – over-involvement in online relationships.
3. **Net Compulsions** - obsessive online gambling, shopping, or online trading.
4. **Information Overload** - compulsive web surfing or database searches.
5. **Computer Addiction** - obsessive computer game playing (e.g., Doom, Myst, or Solitaire).

Qualitative analysis indicated that a leading factor underlying pathological or compulsive use of the Internet was the anonymity of electronic transactions. Specifically, anonymity was associated with four general areas of dysfunction:

1. Encouraged deviant, deceptive, and even criminal acts such as viewing and downloading obscene images (e.g., pedophilia, urination, or bondage fantasies) or illegal images (e.g., child pornography) widely available on adult web sites. It should be noted that the evidence indicates that clients who entertained deviant sexual fantasies involving children and adolescents did not attempt to contact children or adolescents beyond the Internet. Commentary suggested that the existence of deviant fantasies did not necessarily equate with or reliably predict that the sexual molestation of children will occur or has occurred. The behavior began out of curiosity and soon became an obsession. In cases of Cybersexual addiction, sex offender psychotherapy was offered to reduce potential risk.
2. Provided a virtual context that allowed overly shy or self-conscious individuals to interact in a socially safe and secure environment. Over-reliance upon on-line relationships resulted in significant problems with real life interpersonal and occupational functioning. In such cases, cognitive-behavioral and interpersonal psychotherapy techniques were applied in to reduce avoidant behavior and to enhance social skills.
3. Interactive components of the Internet facilitated cyberaffairs or extramarital relationships formed on-line that negatively impacted marital or family stability, primarily leading to separation and divorce. Individual and marital therapy and family therapy were used when couples' worked towards reconciliation after the online infidelity.
4. The ability to develop alternative online personas, dependent upon a user's mood or desires, that provided a subjective escape from emotional difficulties (e.g., stress, depression, anxiety) or problematic situations or personal hardships (e.g., job burnout, academic troubles, sudden unemployment, marital discord). The immediate psychological escape found within the "fantasy" on-line environment served as a primary

reinforcement for the compulsive behavior. Underlying mood disorders and psychosocial issues were treated with psychotherapy and pharmacological interventions as appropriate.

Table 2 shows a summary of attitudes maintained among therapists who have treated compulsive use of the Internet. Not surprisingly, respondents strongly agreed that addictive use of the Internet is a serious problem akin to other established addictions, felt that the problem was underestimated and that more attention and research in this area was necessary. Respondents considered the implementation of an Internet addiction support group at their agency to provide intervention and believed that moderation of compulsive use was possible.

Discussion

Approximately 83 million Americans are currently online with that number expected to grow by 12 million in the next year alone.11 As the popularity of the Internet rapidly continues to grow, cyber-disorders may pose a serious clinical threat, as little is understood about the treatment implications of this relatively new and often unrecognized phenomenon. Due to the Internet's encouraged use for retail and business applications, it is highly likely that the nature and scope of the familial, social, and occupational consequences may be underestimated. Therefore, public policy matters concerning the marketing and promotion of the Internet should be considered from a mental health perspective. As a profession, prevention programs, recovery centers, support groups, and the integration of training workshops specializing in Internet addiction should be encouraged to address the emergence of such cyber-related problems.

New areas of research should include the development of standard diagnostic instruments to assess cyber-disorders and systematic intake evaluations to further understand the role of compulsive use of the Internet in other established addictions (e.g., alcoholism, sexual compulsivity, pathological gambling) and psychiatric conditions (e.g., major depression, bipolar disorder, ADD).

Research should also include the development of models that identify or explain the motivation underling such pathological online behavior. For example, The ACE Model developed by Young (1999) explains how Accessibility, Control, and Excitement play a significant role in the development of Internet compulsions.12 According to the model, Internet addiction develops due to three discriminate underlying rewards. The three variables include: (a) the accessibility of information, interactive areas, and pornographic images; (b) the personal control and perceived privacy of electronic interactions; and (c) internal feelings excitement leading to a mental "high" related to Net usage. Models such as this facilitate our general understanding of the disorder and guide in later treating planning.

Most important, as young children frequent the Internet, it is important that research also investigate the growing incidence of on-line pedophilia and the risks posed to children. Furthermore, it is important to note that the diagnosis of pedophilia only requires that an individual entertain intense reoccurring sexual fantasies about children13 and does not require that actual molestation to take place. Therefore, as a growing number of criminal cases involve the possession of illegal images downloaded from the Internet, the psychological field should

closely examine the relationship between viewing child pornography and the actual risk of child molestation. Finally, the limitations of this study such as a low sample size, the lack of randomization, and the questionable accuracy of online survey methods are recognized, and therefore, these results should be interrupted with caution.

Table 1: Primary Client Complaints and Clinical Response

QUESTIONS	YES	NO
1. Have you seen a rise in the number of clients who spend an excessive amount of time using the Internet?	80%(28)	20%(7)
2. Have you seen clients who appear "addicted" to the Internet?	85%(30)	15%(5)
3. Have you seen clients who present themselves as having relationship difficulties (e.g. breakups, withdrawn from others, few friends) and later discover it is related to addictive use of the Internet?	74%(26)	16%(9)
4. Have you seen clients who present themselves with clinically related issues (e.g. depression, bi-polar disorder, anxiety) and later discover it is related to addictive use of the Internet?	30%(10)	70%(25)
5. Have you seen clients who are addicted to the Internet who also suffer from a prior addiction history (alcoholism, over-eating, or sex addictions)?	60%(21)	40%(14)
6. Has your program considered a support group for those clients who suffer from an addiction to the Internet?	40%(14)	60%(21)
7. Do you feel the problem is more widespread than the number of cases indicates?	94%(33)	6% (2)
8. Do you believe moderation is possible to treat addictive Internet use?	60%(21)	40%(14)
9. Did your clients form new relationships on-line?	91%(32)	9% (3)
10. Did your clients form a new persona on-line?	66%(23)	34%(12)

Table 2: Attitudes of Therapists treating cases of Pathological Internet Use

STATEMENT	1	2	3	4	5
I feel that addictive use of the Internet may become a significant problem in our society.	35%	55%	10%	0%	0%
I feel that mental health practitioners need to pay more attention to the ramifications of addictive use of the Internet.	40%	55%	0%	5%	0%

I feel that addictive use of the Internet can be as serious as other established addictions (e.g. alcoholism) in terms of psychological and family problems.	50%	35%	10%	0%	5%
I feel that counselors do not take Internet addiction seriously as a legitimate disorder.	30%	20%	35%	10%	0%
I feel that more research is needed to better understand the nature of addictive Internet use.	0%	5%	10%	30%	50%

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