Internet Addiction

A New Clinical Phenomenon and Its Consequences

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New research identifies online users who became hooked on chat rooms, interactive games, and even eBay only to see their lives become increasingly unmanageable because of the Internet. Prior research explores the addictive qualities sustaining drug and alcohol abuse, pathological gambling, and even video game addiction; however, given the relative newness of Internet addiction, little is understood about the habit-forming nature of the Internet and its potential for abuse. As the Internet permeates our lives at home, school, and work, this article takes a closer look at how the Internet can create marital-, academic-, and job-related problems. This article outlines a workable definition of Internet addiction and as a clinical new phenomenon, explores the major consequences created by Internet addiction, including online affairs, student Internet abuse, and employee Internet abuse. Future areas for research and practice are also discussed.

Keywords: *addiction; abuse; dependency; Internet; psychopathology*

The Internet itself is a neutral device originally designed to facilitate research among academic and military agencies. However, how some people have come to use this communication medium has created a stir among the mental health community by great discussion of Internet addiction. Addictive use of the Internet is a new and rapidly growing phenomenon. According to the Pew Research Center (2003), Internet use in the United States alone has grown from just less than half of American adults in 2000 to about 59% of adults at the end of 2002, and studies suggest that nearly 6% of online users suffer from Internet addiction (Greenfield, 1999).

New areas of research identify users who became hooked on online chat rooms, instant messaging, interactive games, and even eBay only to see their lives become increasingly unmanageable because of the Internet (e.g., Morahan-Martin, 1997; Scherer, 1997; Young, 1996). Prior research in the addiction field explores the addictive qualities sustaining drug and alcohol addictions, pathological gambling, and even video game addiction. However,

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given the relative newness of the disorder, little exists that clearly outlines the habit-forming nature of the Internet and its consequences.

Addiction of any kind is traditionally associated with an uncontrollable urge, often accompanied by a loss of control, a preoccupation with use, and continued use despite problems the behavior causes. Abuse is considered a milder form of addiction that can also preoccupy and create problems for the user, but the user has more control over the behavior and is better able to set limits and regulate use. Both addiction and abuse of the Internet can result in consequences. For example, a student who obsessively chats with friends at school takes away from valuable study time resulting in poor academic performance. Or an employee who looks at online pornography during work hours takes away from overall job productivity and his or her actions can even lead to job loss.

Although neither example demonstrates a complete lack of control characteristic of an addiction, both examples do briefly illustrate how even general patterns of Internet abuse can lead to serious problems for the individual. As the Internet permeates our lives at home, school, and work, this article takes a closer look at how the Internet and its potential for abuse can create marital-, academic-, and job-related problems. This article first defines Internet addiction so that readers have a workable model to understand the problem from a clinical perspective. As a new clinical phenomenon, this article also outlines the major consequences of Internet addiction and its associated abuse. Specifically, the impact of online affairs on relationships, the academic impact of student Internet abuse on campuses, and the effects of employee Internet abuse are explored. Finally, given its newness, future areas for research and practice are discussed.

DEFINING INTERNET ADDICTION

Notions of technological addictions (Griffiths, 1996) and computer addiction (Shotton, 1991) have previously been studied in England. However, when Internet addiction was first introduced in 1996 at the Annual Meeting of the American Psychological Association (Young, 1996), it sparked a controversial debate among both clinicians and academicians.

Unlike chemical dependency, the Internet offers several direct benefits as a technological advancement in our society and is not a device to be criticized as "addictive" (Levy, 1996). These benefits range from practical applications such as conducting research, performing business transactions, accessing libraries, and communicating with colleagues to making vacation plans. Books have been written outlining the psychological as well as functional benefits of the Internet in our daily lives (Rheingold, 1993; Turkle, 1995) and by comparison, chemical dependence is not an integral part of our professional lives, nor does it offer any direct benefit.

Furthermore, many researchers argued that the term *addiction* should be applied only to cases involving the ingestion of a drug (e.g., Rachlin, 1990;

Walker, 1989). However, defining *addiction* has moved beyond this to include a number of behaviors that do not involve an intoxicant, such as compulsive gambling (Griffiths, 1990), video game playing (Keepers, 1990), overeating (Lesieur & Blume, 1993), exercise (Morgan, 1979), love relationships (Peele & Brodsky, 1979), and television viewing (Winn, 1983). During the past decade, a growing body of peer-reviewed literature adapted the term *Internet addiction*, and its acceptance as a legitimate disorder grew (e.g., Ferris, 2001; Greenfield, 1999; Hansen, 2002)

DIAGNOSTIC CRITERIA

In general, the Internet is a highly promoted technological tool, making detection and diagnosis of addiction difficult. Therefore, it is essential to understand the criteria that differentiate normal from pathological Internet use. Proper diagnosis is often complicated by the fact that there is currently no accepted set of criteria for addiction listed in the *Diagnostic and Statistical Manual of Mental Disorders* (4th ed.) (American Psychiatric Association, 1994). Of all the diagnoses referenced, pathological gambling is viewed as most akin to the compulsive nature of Internet use (Young, 1996), defining it as an impulse-control disorder that does not involve an intoxicant and developing the following criteria:

1. Do you feel preoccupied with the Internet (think about previous online activity or anticipate next online session)?
2. Do you feel the need to use the Internet with increasing amounts of time to achieve satisfaction?
3. Have you repeatedly made unsuccessful efforts to control, cut back, or stop Internet use?
4. Do you feel restless, moody, depressed, or irritable when attempting to cut down or stop Internet use?
5. Do you stay online longer than originally intended?
6. Have you jeopardized or risked the loss of a significant relationship, job, educational or career opportunity because of the Internet?
7. Have you lied to family members, therapists, or others to conceal the extent of involvement with the Internet?
8. Do you use the Internet as a way of escaping from problems or of relieving a dysphoric mood (e.g., feelings of helplessness, guilt, anxiety, depression)?

Only nonessential computer/Internet usage (i.e., nonbusiness- or nonacademic-related use) should be evaluated, and addiction is present when clients answer yes to five (or more) of the questions during a 6-month period. This list offers a workable definition of Internet addiction to help us differentiate normal from compulsive Internet use, but these warning signs can often be masked by the cultural norms that encourage and reinforce its use. That is, even if a person meets all eight criteria, signs of abuse can be rationalized away as "I need this for my job" or "It's just a machine" when in reality, the Internet is causing significant problems in a user's life.

Although time is not a direct function in diagnosing Internet addiction, addicts generally are excessive about their online usage, spending anywhere from 40 to 80 hours per week, with sessions that could last up to 20 hours. Sleep patterns are disrupted due to late night logins, and addicts generally stay up surfing until 2:00, 3:00, or 4:00 in the morning with the reality of having to wake up early for work or school. In extreme cases, caffeine pills are used to facilitate longer Internet sessions. Such sleep depravation causes excessive fatigue, impairing academic or occupational performance, and may decrease the immune system, leaving the addict vulnerable to disease. Sitting at the computer for such prolonged periods also means that addicts are not getting the proper exercise and sometimes, addicts are at increased risk for carpal tunnel syndrome.

Similar to an alcoholic who needs to consume greater levels of alcohol to achieve satisfaction, addicts routinely spend significant amounts of time online. Furthermore, addicts will go to great lengths to mask the nature of their online activities, primarily to conceal the extent and nature of the behavior. In most cases of impulse-control disorder, an individual's compulsion is often associated with increasingly painful states of tension and agitation that is relieved through the completion of the act. For example, an alcoholic is driven to drink or an overeater is driven to binge on food during moments of tension. In each case, the compulsive behavior serves to reduce the underlying emotional tension and serves as a reward for future behavior. In the same manner, an Internet addict's use of the computer is less about using it as an information tool and more about finding a psychological escape to cope with life's problems.

Addictions accomplish something for the person, however illusory or momentary these benefits may actually be. Underlying Internet addiction is the anonymity of electronic transactions that provide a virtual context that cultivates 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). When online addicts are forced to go without the Net, they feel a sense of withdrawal with racing thoughts of "I must have it," "I can't go without it," or "I need it." Because addictions serve a useful purpose to the addict, the attachment or sensation may grow to such proportions that it damages a person's life.

THE IMPACT OF ONLINE AFFAIRS

One of the most common consequences associated with online addiction is the problem of online affairs. At an alarming rate, once long-term and stable marriages are destroyed by a cyberaffair. A *cyberaffair* is defined as a romantic and/or sexual relationship that is initiated via online contact and maintained predominantly through electronic conversations that occur through e-mail, chat rooms, or interactive games (Young, 1999). These virtual communities allow

strangers from all over the world to meet instantly 24 hours per day, 7 days a week, creating a breeding ground for online affairs to develop. However, the scope of relationship problems caused by the Internet can be undermined by its popularity and advanced utility. For instance, Young (1998) found that serious relationship problems were reported by 53% of Internet addicts surveyed that led to marital discord, separation, and even divorce.

Online affairs dynamically differ from real-life affairs and are potentially more seductive. Given the global nature of the Internet, online affairs can be culturally diverse and consequently, can seem more glamorous than the people one already knows in day-to-day living (Young, 1998). Electronic communication allows individuals to feel less inhibited, which accelerates perceived intimacy. Online, people are more likely to be open, honest, and forthright, revealing personal truths, and the intimacy that might take months or years in an offline relationship may take only days or weeks online (Cooper & Sportolari, 1997; Young, 1997). A friendly conversation with a trusted online companion can quickly turn erotic, allowing users to share their most private sexual fantasies with one another. Erotic online chats can be accompanied by self-stimulation to heighten the sexual experience (Young, 1997).

These seemingly harmless online relationships can easily progress into secret phone calls, letters, and offline meetings, and getting one's needs met through an online affair can adversely affect one's marriage. Clinicians are increasingly seeing cases in their practices of couples seeking counseling to deal with an online affair (Young, 1998), and online infidelity has accounted for a growing number of divorce cases. According to the American Academy of Matrimonial Lawyers, 63% of lawyers surveyed reported that the Internet has played a significant role in divorces they have handled during the past year (Paul, 2003; Quittner, 1997). Unlike affairs that happen outside the home, online affairs occur in the home, often while an unsuspecting spouse is sitting in the next room. And unlike a spouse who catches his or her partner in bed with a lover, a spouse may have little more than a suspicion that his or her partner is sharing intimacies with someone via the computer. So, how much time at the computer is too much and how can someone tell if a husband or wife is having an online affair?

Change in sleep patterns. A change in a person's sleep habits is one of the first warning signs. Chat rooms and meeting places for cybersex do not heat up until late at night, so the unfaithful partner may stay up later and later to be part of the action. A partner may begin to come to bed in the early morning hours, or he or she may leap out of bed 1 or 2 hours early to use the computer for a prework e-mail exchange with a new romantic partner.

A demand for privacy. If someone begins an affair, whether online or offline, he or she usually goes to great lengths to hide the truth from a partner. With a

cyberaffair, this attempt usually leads to the need for greater privacy and secrecy surrounding computer use. The computer may be moved from the visible den to a secluded corner of a locked study, or a person may change the password or cloak all his or her online activities in secrecy. If disturbed or interrupted when online, a person may react with anger or defensiveness to conceal the extent of his or her online involvement.

Other responsibilities ignored. When any Internet user increases his or her time online, other responsibilities often suffer (Young, 1998). This is not automatically a sign of a cyberaffair, but in a relationship, those dirty dishes, piles of laundry, increased time at the office, and unmowed lawns might indicate that someone else is competing for the suspected person's attention and time. With the excitement and novelty of an online affair, a husband or wife does not feel the motivation to contribute to other household responsibilities that was felt before the computer came into his or her life.

Evidence of lying. The offending spouse may hide credit card bills for online services and telephone bills for calls made to a cyberlover and may lie about the reason for such extensive Internet use (Young, 1998). People will lie about their online sexual practices, but those engaging in a cyberaffair have a higher stake in concealing the truth. Couples argue about the computer, and the person who is engaged in an online affair must tell bigger and bolder lies to conceal his or her affair, such as telling a spouse that he or she will quit or cut back Internet usage. Between the couple, not only can intimacy be broken but also trust.

Personality changes. A person is often surprised and confused to see how much a partner's moods and behaviors have changed since the Internet engulfed him or her. A once warm and sensitive wife becomes cold and withdrawn. A formerly jovial husband turns quiet and brooding (Young, 1998). If questioned about these changes in connection with Internet activities, the person engaging in a cyberaffair often responds with heated denials, blaming, and rationalization. The motivation, either consciously or not, is to shift the blame to the nonoffending partner. For a person once willing to communicate about contentious matters, this could be a smokescreen hiding an online affair.

Loss of interest in sex. Some online affairs can evolve into phone sex or real-life meetings, but even the process of sharing one's sexual fantasies online can alter patterns of sexual interest. If chats with an online lover also include masturbation, a person may suddenly show a lesser interest in sex with a real-life partner, and it may be another sign that they have found another sexual outlet online. Often, people who engage in online affairs are less enthusiastic, energetic, and responsive to lovemaking with a real-life partner and prefer the newness and excitement of virtual sexual stimulation (Young, 1998).

Declining investment in the relationship. Those engaged in a cyberaffair are likely to have less energy to participate in their relationship in any number of ways. They shun those familiar rituals such as a shared bath, talking over the dishes after dinner, or renting a video on Saturday night. They do not get as excited about taking vacations together, and they avoid talk about long-range plans. As they are having their fun with someone else, their thoughts and energies revolve around fantasies of their cyberpartner—not building intimacy with the long-term partner.

The discovery of an unfaithful partner is difficult for anyone, but in cases of online affairs, couples fear that the relationship will end because of someone a partner has yet to meet in "real life." A partner may react with disbelief or try to rationalize his or her partner's behavior as just a "phase" and may even go to great lengths to conceal the problem from family and friends (Young, 1999). Out of frustration and jealousy, a partner may also attempt to take charge of the situation and initially control the other person's behavior by changing the password to prevent access to the Internet account, canceling the online service, or even dismantling the computer. In the painful reality that a partner prefers the company of someone he or she met over the Internet instead of the real-life relationship the couple has shared, such coercive actions are understandable and often represent an attempt to regain a partner's attention in the relationship.

STUDENT INTERNET ABUSE

The Internet has been touted as a premiere educational tool driving schools to integrate Internet services among their classroom environments. However, one survey reveals that 86% of responding teachers, librarians, and computer coordinators believe that Internet usage by children does not improve performance; they argued that information on the Internet is too disorganized and unrelated to school curriculum to help students and can even serve as a distraction (Barber, 1997). Young (1998) found 58% of students suffered from poor study habits, poor grades, or failed school due to excessive Internet use. Increasingly, college administrators are recognizing that they have put all this money in an educational tool that can easily be abused.

Colleges are starting to see the potential impact of student Internet use. At Alfred University, Provost W. Richard Ott investigated why normally successful students with 1200 to 1300 SATs had recently been dismissed. To his surprise, his investigation found that 43% of these students failed school due to extensive patterns of late night logins to the university computer system (Brady, 1996). Counselors at the University of Texas–Austin began seeing students whose primary problem was an inability to control their Internet use, and in one of the first campus studies on student Internet abuse, they found that of the 531 valid responses, 14% met criteria for Internet addiction (Scherer, 1997).

College counselors have argued that students are the most at-risk population to develop an addiction to the Internet because of encouraged use encountered on campuses as well as access made possible anytime day or night via computer labs, wired dorms, and mobile Internet devices. In one such instance, the University of Maryland even started an Internet addiction support group to help students who abused (Murphey, 1996), and gradually, more such support groups are developing across campuses. With such widespread access to the Internet, what are the factors that contribute to student Internet abuse?

Free and unlimited Internet access. When freshmen register today, they get a student ID card, a meal card, and most important, a free personal e-mail account, generally without online service fees to pay, no limits to their time logged on, and computer labs open for their convenience around the clock. It is an Internet user's dream.

Huge blocks of unstructured time. Most college students attend classes for 12 to 16 hours per week. The rest of the time is their own to read, study, go to movies or parties, join clubs, or explore the new environment outside their campus walls. Many forget all those other activities and concentrate on one thing: the Internet.

Newly experienced freedom from parental control. Away from home and their parent's watchful eyes, college students long have exercised their new freedom by engaging in pranks, talking to friends to all hours of the night, sleeping with their boyfriends and girlfriends, and eating and drinking things mom and dad would not approve of. Today, they use that freedom by hanging out in chat rooms and instant messaging friends at all hours of night with no parent to complain about their refusal to get off the computer.

No monitoring or censoring of what they say or do online. When they move on to the job world, college students may find suspicious bosses peeking over their shoulders or even monitoring their online time and usage. Even e-mail to coworkers could be intercepted by the wrong party. In college, no one is watching. Computer lab monitors tend to be student volunteers whose only responsibility is to assist anyone who needs help understanding how to use the Internet—not to tell them what they can or cannot do on it.

Full encouragement from faculty and administrators. Students understand that their school's administration and faculty want them to make full use of the Internet's vast resources. Abstaining from all online use is seldom an option—in some large classes, professors place required course materials solely on the Internet and engage in their only one-on-one contact with students through e-mail. Administrators, of course, want to see their major investments in computers and Internet access justified.

Social intimidation and alienation. With as many as 30,000 students on some campuses, students easily can get lost in the crowd. When they try to reach out, they often run into even tighter clicks than the in crowds of high school. Maybe they do not dress right or look right. But when they join the faceless community of the Internet, they find that with little effort, they can become popular with new "friends" throughout the United States and across the globe. They instantly turn to online companions to hide from difficult feelings of fear, anxiety, and depression and to escape the pressures of making top grades, fulfilling parental expectations, and on graduating, facing fierce competition for finding good jobs.

A higher legal drinking age. With the drinking age at 21 in most states, undergraduate students cannot openly drink alcohol and socialize in bars. So the Internet becomes their substitute drug of choice: no ID required and no closing hour.

With little restrictions, students must exercise self-control and in cases of Internet addiction, students risk failing out of school, relationship breakups, or their parents' wrath when they discover that their investment in their child's college education is going to support all-night Internet sessions. Students can tumble into major depression when their online steady blips off the screen forever or they experience withdrawal when they try to quit their online habit—even if their only motivation is to stay in school to keep their free Internet access. At that point, addicted students may decide to seek help, but in many instances, college counselors may know little or nothing about the ways of the Internet and its special allure for students.

EMPLOYEE INTERNET ABUSE

As corporations rely on management information systems to run almost every facet of their business, employee Internet abuse and its potential for addiction has become a potential business epidemic. New studies show how employee abuse of the Internet during work hours results in lost productivity, negative publicity, and possible legal liability.

A business epidemic. According to a survey of human resource directors (Society of Human Resource Managers, 2002), approximately 70% of companies provide Internet access to more than half of their employees, and such widespread corporate reliance on the Internet has spurred a series of industry-driven studies to investigate the prevalence of employee Internet abuse. In a survey of 1,439 workers by Vault.com, an online analyst firm, 37% admitted to surfing constantly at work, 32% surfed a few times a day, and 21% surfed a few times a week (Adschiew, 2000). In a survey of 224 corporations by Websense, Inc. (2000a), an electronic monitoring firm, 64% of the companies have disciplined and more than 30% have terminated employees for inappropriate use of the

Internet. Specifically, accessing pornography (42%), online chatting (13%), gaming (12%), sports (8%), investing (7%), and shopping at work (7%) were the leading causes for disciplinary action or termination (Websense, Inc., 2000a). In an online usage report conducted in 2000 by eMarketer.com, 73% of U.S. active adult users have accessed the Web at least once from work, 41% access the Web a majority of the time at work, and 15% go online exclusively at work (McLaughlin, 2000).

Lost productivity. Employee Internet abuse translates into billions in lost revenue for employers (Stewart, 2000). Vault.com estimated that employee Internet abuse cost U.S.$54 billion annually in lost productivity (Adschiew, 2000). Computer Economics noted that online shopping, stock trading, car buying, looking for a new house, and even visiting pornographic sites have become daily practices for about 25% of workers, costing companies U.S.$5.3 billion in lost productivity due to recreational Internet surfing in 1999 (Conlin, 2000). For example, after the peak of the Clinton-Lewinsky scandals, ZDNet reported that industry experts estimated American companies lost U.S.$470 million in productivity to employees reading the salacious document online (Swanson, 2001). Similarly, Victoria's Secret posted a 44-minute, midworkday Web cast with an estimated 2 million viewers, costing an estimated U.S.$120 million in lost productivity (Websense, Inc., 2000b).

Negative publicity. Telemate.Net Software, Inc., a provider of Internet usage management and eBusiness intelligence solutions, conducted a study on the problem of Internet abuse in the workplace ("A Landmark Survey," 2000). Telemate.Net Software surveyed more than 700 companies from a diverse cross section of industries. Survey respondents included executives, senior information technology professionals, and information technology and human resource managers. Findings indicate that 83% of companies were concerned with inappropriate employee usage of the Internet and the resulting negative publicity. The fear of Internet abuse in the workplace and its associated public costs was consistent across industries, company size, and job titles of respondents ("A Landmark Survey," 2000). In some notable headline cases, *The New York Times* fired 22 employees in Virginia for allegedly distributing potentially offensive electronic mail (Associated Press, 2000); Xerox terminated 40 workers for spending work time surfing pornographic and shopping sites on the Web (Associate Press, 2000); Dow Chemical fired 50 employees and suspended another 200 without pay after an e-mail investigation uncovered hard-core pornography and violent subject matter (Collins, 2000); and Merck, a prominent pharmaceutical firm, dismissed multiple contractors for inappropriate Internet usage (DiSabatino, 2000). With this type of publicity, customers who learn about firings due to Internet abuse at the firm may become less trustful of the integrity of the company.

Legal liabilities. The benefits of the Internet in the workplace as an information and communication tool certainly outweigh the negatives for any company, yet there is a definite concern that it is a growing distraction among employees. Any misuse of time in the workplace creates a problem for managers, especially as corporations are providing employees with a tool that can easily be abused. Most alarming for corporations is the growing legitimacy of Internet addiction as a disorder, placing corporations who use the Internet at risk for significant liability under the Americans With Disabilities Act (Young, 2003). Under the act, employees terminated for Internet abuse at work, in turn, sue the company for wrongful termination, stating Internet addiction is a protected disability and often, the employer gave them access to the digital drug. Although most claims never make it to court, trends show that these wrongful termination suits under the Americans With Disabilities Act and related to employee Internet addiction are on the rise.

FUTURE AREAS OF RESEARCH AND PRACTICE

During the past decade, the acceptance of Internet addiction has grown in the mental health field and new journals, such as *CyberPsychology and Behavior*, that focus on Internet behavior and addiction have emerged. It is difficult to predict the results of these early endeavors. However, it is feasible that with years of collective effort, Internet addiction may be recognized as a legitimate impulse control disorder worthy of its own classification in future revisions of the *DSM*. Until then, there is a need for the professional community to recognize and respond to the threat of its rapid expansion.

With the growing popularity of the Internet, the mental health field needs to develop an infrastructure of treatment programs specifically designed to care for the Internet-addicted addict. Because this is a new and often laughed about addiction, individuals are reluctant to seek out treatment, fearing that clinicians may not take their complaints seriously. Drug and alcohol rehabilitation centers, community mental health clinics, and clinicians in private practice should avoid minimizing the impact to addicts whose complaint involves Internet addiction and instead, offer effective recovery programs. Advertisement of such programs both online and within the local community may encourage those timid individuals to come forward to seek the help they need.

Among university settings and corporations, it would be prudent to recognize that students and employees, respectively, can become addicted to a tool provided directly by the institution. College counseling centers should invest energy in the development of seminars designed to increase awareness among faculty, staff, administrators, and students of the ramifications of Internet abuse on campus. Many have already started their own Internet addiction support groups, and colleges such as William Woods in Missouri have begun to limit students' time online by offering monetary incentives.

The rapid reliance on the Internet has future implications on employee Internet management, especially with the proliferation of mobile computing and wireless Internet appliances. For instance, Cahners In-Stat Group reported that the Internet access devices market (which includes personal computers, mobile telephones, and smart Internet devices) is expected to grow at an annual rate of 41.6% in units from 2001 to 2005 (Abdur-Razzaq, 2002). Mobile and wireless computing will make detecting incidents of abuse even more difficult for corporations, emphasizing the need to use an array of risk management strategies to aid in detection and prevention. As Internet addiction becomes more recognized, corporations may investigate offering recovery services for those employees suspected of online addiction as an alternative to suspension or job termination to further aid in their prevention efforts.

Finally, to pursue such effective recovery programs, continued research is needed to better understand the underlying motivations of Internet addiction. Future research should focus on how psychiatric illness, such as depression or obsessive-compulsive disorder, plays a role in the development of compulsive Internet use. Longitudinal studies may reveal how personality traits, family dynamics, or interpersonal skills influence the way people use the Internet. Lastly, outcome studies are needed to determine the efficacy of specialized therapy approaches to treat Internet addiction and compare these outcomes against traditional recovery modalities.

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