Internet Addiction:
Symptoms, Evaluation, And Treatment

Dr. Kimberly S. Young

This article is reproduced from Innovations in Clinical Practice (Volume 17) by L. VandeCreek & T. L. Jackson (Eds.), Sarasota, FL: Professional Resource Press. Copyright 1999 by Professional Resource Exchange, Inc. and reprinted with permission. Further electronic/printed circulation or duplication is strictly prohibited without explicit written authorization from Professional Resource Exchange, Inc.

SUMMARY

The Internet itself is a neutral device originally designed to facilitate research among academic and military agencies. How some people have come to use this medium, however, has created a stir among the mental health community by great discussion of Internet addiction. Addictive use of the Internet is a new phenomenon which many practitioners are unaware of and subsequently unprepared to treat. Some therapists are unfamiliar with the Internet, making its seduction difficult to understand. Other times, its impact on the individual's life is minimized. The purpose of this chapter is to enable clinicians to better detect and treat Internet addiction. The chapter will first focus on the complications of diagnosis of Internet addiction. Second, the negative consequences of such Internet abuse are explored. Third, how to properly assess and identify triggers causing the onset of pathological Internet use are discussed. Fourth, a number of recovery strategies are presented. Lastly, since Internet addiction is an emergent disorder, implications for future practice are presented.

Complications In Diagnosing Internet Addiction

Negative Consequences Of Addictive Use Of The Internet

Familial Problems
Academic Problems
Occupational Problems

Assessment Of Pathological Internet Use

Applications
Emotions
Cognitions
Life Events

Treatment Strategies For Pathological Internet Use

Practice The Opposite
External Stoppers

Setting Goals
Abstinence
Reminder Cards
Personal Inventory
Support Groups
Family Therapy

Future Implications Of Pathological Internet Use

References

COMPLICATIONS IN DIAGNOSING INTERNET ADDICTION

Notions of technological addictions (Griffiths, 1996) and computer addiction (Shotton, 1991) have previously been studied in England. However, when the concept of Internet addiction was first introduced in a pioneer study by Young (1996), it sparked a controversial debate by both clinicians and academicians. Part of this controversy revolved around the contention that only physical substances ingested into the body could be termed "addictive." While many believed the term *addiction* should be applied only to cases involving the ingestion of a drug (e.g., Rachlin, 1990; Walker, 1989), defining addiction has moved beyond this to include a number of behaviors which do not involve an intoxicant such as compulsive gambling (Griffiths, 1990), video game playing (Keepers, 1990), overeating (Lesuire & Bloome, 1993), exercise (Morgan, 1979), love relationships (Peele & Brody, 1975), and television-viewing (Winn, 1983). Therefore, linking the term "addiction" solely to drugs creates an artificial distinction that strips the usage of the term for a similar condition when drugs are not involved (Alexander & Scheweighofer, 1988).

The other controversial element related to the use of the Internet addiction is that unlike chemical dependency, the Internet offers several direct benefits as a technological advancement in our society and not a device to be criticized as "addictive" (Levy, 1996). The Internet allows a user a range of practical applications such as the ability to conduct research, to perform business transactions, to access international libraries, or to make vacation plans. Furthermore, several books have been written which outline the psychological as well as functional benefits of Internet use in our daily lives (Rheingold, 1993; Turkle, 1995). In comparison, substance dependence is not an integral aspect of our professional practice nor does it offer a direct benefit for its routine usage.

In general, the Internet is a highly promoted technological tool making detection and diagnosis of addiction difficult. Therefore, it is essential that the skilled clinician understand the characteristics which 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 much less Internet addiction listed in the Diagnostic and Statistical Manual of Mental Disorders - Fourth Edition (DSM-IV; American Psychiatric Association, 1995). Of all

the diagnoses referenced in the DSM-IV, Pathological Gambling was viewed as most akin to the pathological nature of Internet use. By using Pathological Gambling as a model, Internet addiction can be defined as an impulse-control disorder which does not involve an intoxicant. Therefore, Young (1996) developed a brief eight-item questionnaire which modified criteria for pathological gambling to provide a screening instrument for addictive Internet use:

1. Do you feel preoccupied with the Internet (think about previous on-line activity or anticipate next on-line session)?
2. Do you feel the need to use the Internet with increasing amounts of time in order 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 on-line longer than originally intended?
6. Have you jeopardized or risked the loss of significant relationship, job, educational or career opportunity because of the Internet?
7. Have you lied to family members, therapist, or others to conceal the extent of involvement with the Internet?
8. Do you uses the Internet as a way of escaping from problems or of relieving a dysphoric mood (e.g., feelings of helplessness, guilt, anxiety, depression)?

Patients were considered "addicted" when answering "yes" to five (or more) of the questions and when their behavior could not be better accounted for by a Manic Episode. Young (1996) stated that the cut off score of "five" was consistent with the number of criteria used for Pathological Gambling and was seen as an adequate number of criteria to differentiate normal from pathological addictive Internet use. I should note that while this scale provides a workable measure of Internet addiction, further study is needed to determine its construct validity and clinical utility. I should also note that a patient's denial of addictive use is likely to be reinforced due to the encouraged practice of utilizing the Internet for academic or employment related tasks. Therefore, even if a patient meets all eight criteria, these symptoms can easily be masked as "I need this as part of my job," "Its just a machine," or "Everyone is using it" due to the Internet's prominent role in our society.

[Return to Index]

NEGATIVE CONSEQUENCES OF ADDICTIVE USE OF THE INTERNET

The hallmark consequence of substance dependence is the medical implication involved, such as cirrhosis of the liver due to alcoholism, or increased risk of stroke due to cocaine use. However, the physical risk factors involved with an addiction to the Internet are comparatively minimal yet notable. While time is not a direct function in defining Internet addiction, generally addicted users are likely to use the Internet anywhere from forty to eighty hours per week, with single sessions that could last up to twenty hours. To accommodate such excessive use, sleep patterns

are typically disrupted due to late night log-ins. The patient typically stays up past normal bedtime hours and may report staying on-line until two, three, or four in the morning with the reality of having to wake for work or school at six a.m. In extreme cases, caffeine pills are used to facilitate longer Internet sessions. Such sleep depravation causes excessive fatigue often making academic or occupational functioning impaired and may decrease one's immune system, leaving the patient vulnerable to disease. Additionally, the sedentary act of prolonged computer use may result in a lack of proper exercise and lead to an increased risk for carpal tunnel syndrome, back strain, or eyestrain. While the physical side-effects of utilizing the Internet are mild compared to chemical dependency, addictive use of the Internet will result in similar familial, academic, and occupational impairment.

Familial Problems

The scope of relationship problems caused by Internet addiction has been undermined by its current popularity and advanced utility. Young (1996) found that serious relationship problems were reported by fifty-three percent of Internet addicts surveyed. Marriages, dating relationships, parent-child relationships, and close friendships have been noted to be seriously disrupted by "net binges." Patients will gradually spend less time with people in their lives in exchange for solitary time in front of a computer.

Marriages appear to be the most affected as Internet use interferes with responsibilities and obligations at home, and it is typically the spouse who takes on these neglected chores and often feels like a "Cyberwidow." Addicted on-line users tend to use the Internet as an excuse to avoid needed but reluctantly performed daily chores such as doing the laundry, cutting the lawn, or going grocery shopping. Those mundane tasks are ignored as well as important activities such as caring for children. For example, one mother forgot such things as to pick up her children after school, to make them dinner, and to put them to bed because she became so absorbed in her Internet use.

Loved ones first rationalize the obsessed Internet user's behavior as "a phase" in hopes that the attraction will soon dissipate. However, when addictive behavior continues, arguments about the increased volume of time and energy spent on-line soon ensue, but such complaints are often deflected as part of the denial exhibited by the patients. Addictive use is also evidenced by angry and resentful outbursts at others who question or try to take away their time from using the Internet, often times in defense of their Internet use to a husband or wife. For example, "I don't have a problem," or "I am having fun, leave me alone," might be an addict's response when questioned about their usage.

Matrimonial lawyers have reported seeing a rise in divorce cases due to the formation of such *Cyberaffairs* (Quittner, 1997). Individuals may form on-line relationships which over time will eclipse time spent with real life people. The addicted spouse will isolate socially himself or herself and refuse to engage in once enjoyed events by the couple such as going out to dinner, attending community or sports outings, or travel, and preferring the company of on-line companions. The ability to carry out romantic and sexual relationships on-line further deteriorates the stability of real life couples. The patient will continue to emotionally and socially

withdraw from the marriage, exerting more effort to maintain recently discovered on-line "lovers."

Internet use then interferes with real life interpersonal relationships as those who live with or who are close to the Internet addict respond in confusion, frustration, and jealousy around the computer. For example, Conrad sent this e-mail to me which explains, "My girlfriend spends from 3 to 10 hours a day on the net. Often engaged in cybersex and flirting with other men. Her activities drive me nuts! She lies about it so I have gone out on the net to 'get the goods' to confront her with it. I am finding myself spending almost as much time now. I just broke it off with her in an effort to put some sanity back into my own life. It is a sad story. By the way, we are not kids, but middle-aged adults." Similar to alcoholics who will try to hide their addiction, Internet addicts engage in the same lying about how long their Internet sessions really last or they hide bills related to fees for Internet service. These same characteristics create distrust and over time will hurt the quality of once stable relationships.

Academic Problems

The Internet has been touted as a premiere educational tool driving schools to integrate Internet services among their classroom environments. However, one survey revealed that eighty-six percent of responding teachers, librarians, and computer coordinators believe that Internet usage by children does not improve performance (Barber, 1997). Respondents argued that information on the Internet is too disorganized and unrelated to school curriculum and textbooks to help students achieve better results on standardized tests. To further question its educational value, Young (1996) found that fifty-eight percent of students reported a decline in study habits, a significant drop in grades, missed classes, or being placed on probation due to excessive Internet use.

Although the merits of the Internet make it an ideal research tool, students surf irrelevant web sites, engage in chat room gossip, converse with Internet penpals, and play interactive games at the cost of productive activity. Alfred University's 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 forty-three percent of these students failed school due to extensive patterns of late night log-ons to the university computer system (Brady, 1996). Beyond tracking Internet misuse among students, college counselors began seeing client's whose primary problem was an inability to control their Internet use. A survey initiated by counselors at the University of Texas at Austin found that of the 531 valid responses, 14% met criteria for Internet addiction (Scherer, in press). This resulted in forming a campus-wide seminar called "It's 4am, and I Can't, Uh-Won't Log Off" to increase awareness about the risk factors of Internet misuse among students. Dr. Jonathan Kandell at the University of Maryland at College Park's Counseling Center went so far as to initiate an Internet addiction support group when he noticed academic impairment and poor integration in extracurricular activities due to excessive Internet use on campus (Murphey, 1996).

Occupational Problems

Internet misuse among employees is a serious concern among managers. One survey from the nations top 1,000 companies revealed that fifty-five percent of executives believed that time surfing the Internet for non-business purposes is undermining their employees' effectiveness on the job (Robert Half International, 1996). New monitoring devices allow bosses to track Internet usage, and initial results confirm their worst suspicions. One firm tracked all traffic going across its Internet connection and discovered that only twenty-three percent of the usage was business-related (Machlis, 1997). There is growing availability of such monitoring software as employers not only fear poor productivity, but they need to stop the use of valuable network resources for non-business related purposes (Newborne, 1997). Managers have been forced to respond by posting policies detailing acceptable and unacceptable Internet use.

The benefits of the Internet such as assisting employees with anything from market research to business communication outweigh the negatives for any company, yet there is a definite concern that it is a distraction to many 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 misused. For example, Evelyn is a 48 year old executive secretary who found herself compulsively using chat rooms during work hours. In an attempt to deal with her "addiction," she went to the Employee Assistance Program for help. The therapist, however, did not recognize Internet addiction as a legitimate disorder requiring treatment and dismissed her case. A few weeks later, she was abruptly terminated from employment for time card fraud when the systems operator had monitored her account only to find she spent nearly half her time at work using her Internet account for non-job related tasks. Employers uncertain how to approach Internet addiction among workers may respond to an employee who has abused the Internet with warnings, job suspensions, or termination from employment instead of making a referral to the company's Employee Assistance Program (Young, 1996).

[Return to Index]

ASSESSMENT OF PATHOLOGICAL INTERNET USE

Symptoms of Internet addiction are ones that may not always be revealed in an initial clinical interview; therefore, it is important that clinicians routinely assess for the presence of addictive Internet use. In order to properly assess for pathological Internet use, I need to first review controlled drinking models and moderation training for eating disorders which have established that certain triggers or cues associated with past alcohol, drug, or food use will onset binge behavior. Triggers or cues which may initiate binge behavior come in different forms such as certain people, places, activities, or foods (Fanning & O'Neill, 1996). For example, a favorite bar might be a trigger for excessive drinking behavior, fellow drug users with whom the patient used to party might trigger his or her drug use, or a certain type of food may lead to binge eating.

Triggers go beyond concrete situations or people, and may also include negative thoughts and feelings (Fanning & O'Neill, 1996). When feeling depressed, hopeless, and pessimistic about the future, an alcoholic may resort to drinking. When feeling lonely, unattractive, and down about

oneself, an overeater may binge on whatever is in the refrigerator. Depression or low self-esteem may act as triggers which initiate binge-like behavior in order to temporarily run away, avoid, or cope with such negative thoughts and feelings.

Finally, addictive behaviors may be triggered or cued in reaction to an unpleasant situation in a person's life (Fanning & O'Neill, 1996; Peele, 1985). That is, major life events such as a person's bad marriage, dead-end job, or being unemployed may trigger binge related behavior associated with alcohol, drugs, or food. Many times, the alcoholic will find it simpler to drink in order to cope with recent news of being unemployed than to go out and search for a new job.

Addictive behaviors often act as a lubricant to cope with missing or unfulfilled needs which arise from unpleasant events or situations in one's life. That is, the behavior itself momentarily allows the person to "forget" problems. In the short term, this may be a useful way to cope with the stress of a hard situation, however, addictive behaviors used to escape or run away from unpleasant situations in the long run only end up making the problem worse. For example, an alcoholic who continues to drink instead of dealing with the problems in marriage, only makes the emotional distance wider by not communicating with one's spouse.

Addicts tend to recall the self-medicating effects of their addictions, and forget how the problem grows worse as they continue to engage in such avoidant behavior. The unpleasant situation then becomes a major trigger for continued and excessive use. For example, as the alcoholic's marriage gets worse, drinking increases to escape the nagging spouse, and as the spouse's nagging increases more, the alcoholic drinks more.

In this same manner, Internet addiction operates on triggers or cues which lead to "net binges." I believe that behaviors related to the Internet have the same ability to provide emotional relief, mental escape, and ways to avoid problems as do alcohol, drugs, food, or gambling. Therefore, origins for such net binges can be traced back to the following four types of triggers which need to be assessed, (a) applications, (b) feelings, (c) cognitions, and (d) life events.

Applications

The Internet is a term which denotes a variety of functions accessible on-line such as the World Wide Web (WWW), chat rooms, interactive games, news groups, or database search engines. Young (1996) noted that addicts typically become addicted to a particular application which acts as a trigger for excessive Internet use. Therefore, the clinician needs to determine which applications are most problematic for the addicted user. A thorough assessment should include an examination of the extent of use among particular applications. The clinician should ask the patient several relevant questions, (a) What are the applications you use on the Internet? (b) How many hours per week do you spend using each application? (c) How would you rank order each application from best to least important? and (d) What do you like best about each application? If this is difficult to note, the patient may keep a log near the computer in order to document such behaviors for the next week's session.

The clinician should review the answers to the above questions in order to determine if a pattern

emerges, such as reviewing those applications ranked one or two in terms of importance and how many hours the patient spends on each. For example, the patient may rank chat rooms as number one in terms of importance and use them 35 hours per week compared to lower ranked newsgroups which are only used 2 hours per week. Another patient may rank newsgroups as number one and use them 28 hours per week compared to the lower ranked World Wide Web which is only used 5 hours per week.

Emotions

Peele (1991, pg. 43) explained the psychological hook of addiction as "it gives you feelings and gratifying sensations that you are not able to get in other ways. It may block out sensations of pain, uncertainly, or discomfort. It may create powerfully distracting sensations that focus and absorb attention. It may enable a person to forget or feel "okay" about some insurmountable problems. It may provide an artificial, temporary feeling of security or calm, of self-worth or accomplishment, of power and control, or intimacy or belonging." It is these perceived benefits which explain why a person keeps coming back to the addictive experience.

Addictions accomplish something for the person, however illusory or momentary these benefits may actually be. Because of the mental pleasure that people find in their addictions, they begin to behave more intensely about them. Feelings of excitement, euphoria, and exhilaration typically reinforce addictive patterns of Internet use. Addicts find pleasant feelings when on-line in contrast to how they feel when off-line. The longer a patient is away from the Internet, the more intense such unpleasant feelings become. The driving force for many patients is the relief gained by engaging in the Internet. When they are forced to go without it, they feel a sense of withdrawal with racing thoughts "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. These feelings translate into cues which cultivate a psychological longing for the euphoria associated with the Internet.

To best focus on emotional triggers, the clinician should ask the patient "How do you feel when off-line?" The clinician should then review the responses and determine if they range on a continuum of unpleasant feelings such as lonely, unsatisfied, inhibited, worried, frustrated, or troubled.

The clinician would then ask the patient "How do you feel when using the Internet?" Responses such as excited, happy, thrilled, uninhibited, attractive, supported, or desirable indicate that use of the Internet has altered the patient's mood state. If it is difficult for the patient to determine such emotions, ask the patient to keep a "feelings diary." Have the patient carry a notebook or card in order to write down feelings that are associated with being both off-line and on-line.

Cognitions

Addictive thinkers, for no logical reason, will feel apprehensive, when anticipating disaster (Twerski, 1990). While addicts are not the only people who worry and anticipate negative happenings, they tend to do this more often than other people. Young (1996) suggested that this

type of catastrophic thinking may contribute to addictive Internet use in providing a psychological escape mechanism to avoid real or perceived problems. In subsequent studies, she found that maladaptive cognitions such as low self-esteem and worth, and clinical depression triggered pathological Internet use (Young, 1997a, Young 1997b). Young (1997a) hypothesized that those who suffer from deeper psychological problems may be the ones who are drawn the most to the anonymous interactive capabilities of the Internet in order to overcome these perceived inadequacies.

Dr. Maressa Hecht-Orzack of McLean Hospital founded the Computer/Internet Addiction Service in the Spring of 1996. She indicated that the referrals she received were from various clinics throughout the hospital instead of direct self-referrals for Internet addiction. She reported that primarily depression and bi-polar disorder in its depressive swing were co-morbid features of pathological Internet use. Hecht-Orzack noted that patients typically hide or minimize their addictive Internet use while being treated for the referred disorder. Since it is likely that a patient will self-refer more readily for a psychiatric illness than for pathological Internet use, the clinician should screen for maladaptive cognitions which may contribute to the patient's addictive use of the Internet. Clinicians should evaluate if patients maintain deep core beliefs about themselves such as "I am no good" or "I am a failure" in order to determine if these may contribute to their pathological Internet use. It is important to note that intervention should focus on effective management of the patient's primary psychiatric illness and note whether this treatment ameliorates the symptoms of pathological Internet use.

Life Events

A person is vulnerable to addiction when that person feels a lack of satisfaction in one's life, an absence of intimacy or strong connections to others people, a lack of self-confidence or compelling interests, or a loss of hope (Peele, 1991, pg. 42). In a similar manner, individuals who are dissatisfied or upset by a particular area or multiple areas of their lives have an increased likelihood of developing Internet addiction because they don't understand another way of coping (Young 1997a, Young 1997b). For example, instead of making positive choices that will seek out fulfillment, alcoholics typically drink which dulls the pain, avoids the problem, and keeps them in a status quo. However, as they become sober, they realize that their difficulties have not changed. Nothing is altered by drinking, yet it appears easier to drink than to deal with the issues head on. Paralleling the alcoholics' behaviors, patients use the Internet to dull the pain, avoid the real problem, and keep things in status quo. However, once off-line, they realize that nothing has changed. Such substitution for missing needs often allows the addict to temporarily escape the problem but the substitute behaviors are not the means to solve any problems. Therefore, it is important for the clinician to assess the patient's current situation in order to determine if he or she is using the Internet as a "security blanket" to avoid an unhappy situation such as marital or job dissatisfaction, medical illness, unemployment, or academic instability.

For example, Mary is a discontented wife who views her marriage as empty, full of discord, and sexual dissatisfaction. Mary discovers Cybersex as a disease free outlet to express desires both fantasized about or neglected within her marriage. She also meets new on-line friends in a chat room, or in a virtual area which allows multiples users to speak to one another in real time. These

new on-line friends are the ones to whom she turns in order to obtain the intimacy and understanding missing with her husband.

TREATMENT STRATEGIES FOR PATHOLOGICAL INTERNET USE

Use of the Internet is legitimate in business and home practice such as in electronic correspondence to venders or electronic banking. Therefore, traditional abstinence models are not practical interventions when they prescribe banned Internet use. The focus of treatment should consist of moderation and controlled use. In this relatively new field, outcome studies are not yet available. However, based upon individual practitioners who have seen Internet addicted patients and prior research findings with other addictions, several techniques to treat Internet addiction are: (a) practice the opposite time in Internet use, (b) use external stoppers, (c) set goals, (d) abstain from a particular application, (e) use reminder cards, (f) develop a personal inventory, (g) enter a support group, and (h) family therapy.

The first three interventions presented are simple time management techniques. However, more aggressive intervention is required when time management alone will not correct pathological Internet use. In these cases, the focus of treatment should be to assist the patient in developing effective coping strategies in order to change the addictive behavior through personal empowerment and proper support systems. If the patient finds positive ways of coping, then reliance upon the Internet to weather frustrations should no longer be necessary. However, keep in mind that in the early days of recovery, the patient will most likely experience a loss and miss being on-line for frequent periods of time. This is normal and should be expected. After all, for most patients who derive a great source of pleasure from the Internet, living without it being a central part of one's life can be a very difficult adjustment.

Practice the Opposite

A reorganization of how one's time is managed is a major element in the treatment of the Internet addict. Therefore, the clinician should take a few minutes with the patient to consider current habits of using the Internet. The clinician should ask the patient, (a) What days of the week do you typically log on-line? (b) What time of day do you usually begin? (c) How long do you stay on during a typical session? and (d) Where do you usually use the computer? Once the clinician has evaluated the specific nature of the patient's Internet use, it is necessary to construct a new schedule with the client. I refer to this as *practicing the opposite*. The goal of this exercise is to have patients disrupt their normal routine and re-adapt new time patterns of use in an effort to break the on-line habit. For example, let's say the patient's Internet habit involves checking E-mail the first thing in the morning. Suggest that the patient take a shower or start breakfast first instead of logging on. Or, perhaps the patient only uses the Internet at night, and has an established pattern of coming home and sitting in front of the computer for the remainder of the evening. The clinician might suggest to the patient to wait until after dinner and the news before

logging on. If he uses it every weeknight, have him wait until the weekend, or if she is an all-weekend user, have her shift to just weekdays. If the patient never takes breaks, tell him or her to take one each half hour. If the patient only uses the computer in the den, have him or her move it to the bedroom.

External Stoppers

Another simple technique is to use concrete things that the patient needs to do or places to go as prompters to help log off. If the patient has to leave for work at 7:30 am, have him or her log in at 6:30, leaving exactly one hour before its time to quit. The danger in this is the patient may ignore such natural alarms. If so, a real alarm clock or egg timer may help. Determine a time that the patient will end the Internet session and preset the alarm and tell the patient to keep it near the computer. When it sounds, it is time to log off.

Setting Goals

Many attempts to limit Internet usage fail because the user relies on an ambiguous plan to trim the hours without determining when those remaining on-line slots will come. In order to avoid relapse, structured sessions should be programmed for the patient by setting reasonable goals, perhaps 20 hours instead of a current 40. Then, schedule those twenty hours in specific time slots and write them onto a calendar or weekly planner. The patient should keep the Internet sessions brief but frequent. This will help avoid cravings and withdrawal. As an example of a 20-hour schedule, the patient might plan to use the Internet from 8 to 10 p.m. every weeknight, and 1 to 6 on Saturday and Sunday. Or a new 10-hour schedule might include two weeknight sessions from 8:00 - 11:00 p.m., and an 8:30 am - 12:30 p.m. treat on Saturday. Incorporating a tangible schedule of Internet usage will give the patient a sense of being in control, rather than allowing the Internet to take control.

Abstinence

Previously, I discussed how a particular application may be a trigger for Internet addiction. In the clinician's assessment, a particular application such as chat rooms, interactive games, news groups, or the World Wide Web may be the most problematic for the patient. If a specific application has been identified and moderation of it has failed, then abstinence from that application is the next appropriate intervention. The patient must stop all activity surrounding that application. This does not mean that patients can not engage in other applications which they find to be less appealing or those with a legitimate use. A patient who finds chat rooms addictive, may need to abstain from them. However, this same patient may use e-mail or surf the World Wide Web to make airline reservations or shop for a new car. Another example may be a patient who finds the World Wide Web addictive and may need to abstain from it. However, this same patient may be able to scan news groups related to topics of interest about politics, religion, or current events.

Abstinence is most applicable for the patient who also has a history of a prior addiction such as alcoholism or drug use. Patients with a premorbid history of alcohol or drug addiction often find

the Internet a physically "safe" substitute addiction. Therefore, the patient becomes obsessed with Internet use as a way to avoid relapse in drinking or drug use. However, while the patient justifies the Internet is a "safe" addiction, he or she still avoids dealing with the compulsive personality or the unpleasant situation triggering the addictive behavior. In these cases, patients may feel more comfortable working towards an abstinence goal as their prior recovery involved this model. Incorporating past strategies that have been successful for these patients will enable them to effectively manage the Internet so that they can concentrate on their underlying problems.

Reminder Cards

Often patients feel overwhelmed because, through errors in their thinking, they exaggerate their difficulties and minimize the possibility of corrective action. To help the patient stay focused on the goal of either reduced use or abstinence from a particular application, have the patient make a list of the, (a) five major problems caused by addiction to the Internet, and (b) five major benefits for cutting down Internet use or abstaining from a particular application. Some problems might be listed such as lost time with one's spouse, arguments at home, problems at work, or poor grades. Some benefits might be, spending more time with one's spouse, more time to see real life friends, no more arguments at home, improved productivity at work, or improved grades.

Next, have the patient transfer the two lists onto a 3x5 index card and have the patient keep it in a pants or coat pocket, purse, or wallet. Instruct patients to take out the index card as a reminder of what they want to avoid and what they want to do for themselves when they hit a choice point when they would be tempted to use the Internet instead of doing something more productive or healthy. Have patients take the index card out several times a week to reflect on the problems caused by their Internet overuse and the benefits obtained by controlling their use as a means to increase their motivation at moments of decision compelling on-line use. Reassure patients that it is well worth it to make their decision list as broad and all-encompassing as possible, and to be as honest as possible. This kind of clear-minded assessment of consequences is a valuable skill to learn, one that patients will need later, after they have cut down or quite the Internet, for relapse prevention.

Personal Inventory

Whether the patient is trying to cut down or abstain from a particular application, it is a good time to help the patient cultivate an alternative activity. The clinician should have the patient take a personal inventory of what he or she has cut down on, or cut out, because of the time spent on the Internet. Perhaps the patient is spending less time hiking, golfing, fishing, camping, or dating. Maybe they have stopped going to ball games or visiting the zoo, or volunteering at church. Perhaps it is an activity that the patient has always put off trying, like joining a fitness center or put off calling an old friend to arrange to have lunch. The clinician should instruct the patient to make a list of every activity or practice that has been neglected or curtailed since the on-line habit emerged. Now have the patient rank each one on the following scale: 1 - Very Important, 2 - Important, or 3 - Not Very Important. In rating this lost activity, have the patient genuinely reflect how life was before the Internet. In particular, examine the "Very Important" ranked

activities. Ask the patient how these activities improved the quality of his or her life. This exercise will help the patient become more aware of the choices he or she has made regarding the Internet and rekindle lost activities once enjoyed. This will be particularly helpful for patients who feel euphoric when engaged in on-line activity by cultivating pleasant feelings about real life activities and reduce their need to find emotional fulfillment on-line.

Support Groups

Some patients may be driven towards addictive use of the Internet due to a lack of real life social support. Young (1997c) found that on-line social support greatly contributed to addictive behaviors among those who lived lonely lifestyles such as homemakers, singles, the disabled, or the retired. This study found that these individuals spent long periods of time home alone turning to interactive on-line applications such as chat rooms as a substitute for the lack of real life social support. Furthermore, patients who recently experienced situations such as a death of a loved one, a divorce, or a job loss may respond to the Internet as a mental distraction from their real life problems (Young, 1997c). Their absorption in the on-line world temporarily makes such problems fade into the background. If the life events assessment uncovers the presence of such maladaptive or unpleasant situations, treatment should focus on improving the patient's real life social support network.

The clinician should help the client find an appropriate support group that best addresses his or her situation. Support groups tailored to the patient's particular life situation will enhance the patient's ability to make friends who are in a similar situation and decrease their dependence upon on-line cohorts. If a patient leads one of the above mentioned "lonely lifestyles" then perhaps the patient may join a local interpersonal growth group, a singles group, ceramics class, a bowling league, or church group to help meet new people. If another patient is recently widowed, then a bereavement support group may be best. If another patient is recently divorced, then a divorcees support group may be best. Once these individuals have found real life relationships they will rely less upon the Internet for the comfort and understanding missing in their real lives.

I am routinely asked about the availability of Internet addiction support groups. To date, McLean Hospital in Belmont, Massachusetts and Proctor Hospital in Peoria, Illinois are two of the few treatment centers which offer Computer/Internet Addiction Recovery services. However, I suggest that clinicians attempt to find local drug and alcohol rehabilitation centers, 12 Step recovery programs, or clinicians in private practice who offer recovery support groups that will include those addicted to the Internet. This outlet will be especially useful for the Internet addict who has turned to the Internet in order to overcome feelings of inadequacy and low self-esteem. Addiction recovery groups will address the maladaptive cognitions leading to such feelings and provide an opportunity to build real life relationships that will release their social inhibitions and need for Internet companionship. Lastly, these groups may help the Internet addict to find real life support to cope with difficult transitions during recovery akin to AA sponsors.

Family Therapy

Lastly, family therapy may be necessary among addicts whose marriages and family relationships have been disrupted and negatively influenced by Internet addiction. Intervention with the family should focus on several main areas: (a) educate the family on how addictive the Internet can be, (b) reduce blame on the addict for behaviors, (c) improve open communication about the pre-morbid problems in the family which drove the addict to seek out psychological fulfillment of emotional needs on-line, and (d) encourage the family to assist with the addict's recovery such as finding new hobbies, taking a long over-do vacation, or listening to the addict's feelings. A strong sense of family support may enable the patient to recover from Internet addiction.

FUTURE IMPLICATIONS OF PATHOLOGICAL INTERNET USE

Over the past few years, study of the psychological ramifications of the Internet has grown. At the 1997 American Psychological Association convention, two symposia presented research and theories examining the effects of on-line behavior patterns compared to only one poster presentation in the prior year. The emergence of a new psychological journal is being developed that will focus upon aspects of Internet use and addiction. 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 *Diagnostic and Statistical Manual of Mental Disorders*. Until then, there is a need for the professional community to recognize and respond to the reality of Internet addiction and the threat of its rapid expansion.

Surveys have found that about 47 million have ventured on-line and analysts estimate that another 11.7 million are planning to go on-line in the next year (Snider, 1997). With the growing popularity of the Internet, mental health practitioners should respond to the potential for an increased demand in treatment specifically designed to care for the Internet addicted patient.

Since 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 patients whose complaint involves Internet addiction and offer effective recovery programs. Advertisement of such programs both on-line 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. Thus, college counseling centers should invest energy in the development of seminars designed to increase awareness among faculty, staff, administrators, and students on the ramifications of Internet abuse on campus. Lastly, Employee Assistance Programs should educate human resource managers on the dangers of Internet misuse in the work place and offer recovery

services for those found to be addicted as an alternative to suspension or termination from employment.

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

[Return to Index]

REFERENCES

Alexander, B.K., & Scheweighofer, A. R. (1988). Defining "Addiction". *Canadian Psychology*, 29, 151-162.

American Psychiatric Association. (1995). *Diagnostic and Statistical Manual of Mental Disorders*. (4th ed.) Washington, DC: Author

Barber, A. (March 11, 1997). Net's educational value questioned, *USA Today*, p. 4D

Beck, A.T., Wright, F.D., Newman, C.F., & Liese, B.S. (1993). *Cognitive therapy of substance abuse*. New York, NY: Guilford Press.

Brady, K. (April 21, 1997). Dropout rise a net result of computers. *The Buffalo News*, p. A1.

Fanning, P., & O'Neill, J.T. (1996). *The Addiction Workbook: A step-by-step guide to quitting alcohol and drugs*. Oakland, CA: New Harbinger Publications, Inc.

Griffiths, M. (1995). Technological addictions. *Clinical Psychology Forum*. 76, 14 - 19.

Griffiths, M. (1990). The cognitive psychology of gambling. *Journal of Gambling Studies*, *6*, 31 - 42.

Keepers, G. A. (1990). Pathological preoccupation with video games. *Journal of the American Academy of Child and Adolescent Psychiatry*. 29(1), 49 - 50.

Lesieur, H. R., & Blume, S. B. (1993). Pathological gambling, eating disorders, and the psychoactive substance use disorders. *Comorbidity of Addictive and Psychiatric Disorders*. 89-102.

Levey, S. (Dec.30/Jan. 6, 1997). Breathing is also addictive, *Newsweek*, p. 52- 53.

Machlis, S. (April 4, 1997). Gotcha! Computer monitors riding the web wave, *Computerworld*, p.1.

Morgan, W. (1979). Negative addiction in runners. *Physician and Sportsmedicine*, 7, 56-69.

Murphey, B. (June, 1996). Computer addictions entangle students. *The APA Monitor*, p. 38.

Newborne, E. (April 16, 1997). Bosses worry Net access will cut productivity, *USA Today*, p. 4B.

Peele, S., & Brodsky, A. (1991). *The truth about addiction and recovery: The life process program for outgrowing destructive* habits. New York, NY: Simon & Schuster.

Peele, S., & Brodsky, A. (1979). *Love and addiction*. Scarborough, Ontario: New American Library of Canada.

Press Release, (October 10, 1996). Surf's up! Is productivity down? *Robert Half International*, p. 1.

Quittner, J. (April 14, 1997). Divorce Internet Style, *Time*, p. 72.

Rachlin, H. (1990). Why do people gamble and keep gambling despite heavy losses? *Psychological Science*, *1*, 294-297.

Rheingold, H. (1993). *The virtual community: Homesteading on the electronic frontier*. Reading, MA: Addison-Wesley.

Scherer, K. (In press). College life on-line: Healthy and unhealthy Internet use. *The Journal of College Student Development.*

Shotton, M. (1991). The costs and benefits of "computer addiction." *Behaviour and Information Technology.* 10(3), 219 - 230.

Snider, M. (February 11, 997). Growing on-line population making Internet 'mass media' *USA Today*, p. 1

Turkle, S. (1995). *Life behind the screen: Identity in the age of the Internet*. New York, NY: Simon & Schuster.

Twerski, A. (1990). *Addictive thinking: Understanding self-deception*. New York, NY: HarperCollins

Walker, M. B. (1989). Some problems with the concept of "gambling addiction": should theories

of addiction be generalized to include excessive gambling? *Journal of Gambling Behavior*, 5, 179 - 200.

Walters, G. D. (1992). Drug-seeking behavior: Disease or lifestyle? *Professional Psychology: Research and Practice*, 23(2), 139-145.

Winn, M. (1977). *The plug-in drug*. New York, NY: Viking Penguin, Inc.

Young, K. S. (1996). *Internet addiction: The emergence of a new clinical disorder*. Paper presented at the 104th annual meeting of the American Psychological Association, August 11, 1996. Toronto, Canada.

Young, K. S. & Rodgers, R. (1997a). *Depression and its relationship with pathological Internet use*. Poster presented at the 68th annual meeting of the Eastern Psychological Association, April 11, 1997, Washington, DC.

Young, K. S. & Rodgers, R. (1997b). *The relationship between depression using the BDI and pathological Internet use.* Poster presented at the 105th annual meeting of the American Psychological Association August 15, 1997. Chicago, IL.

Young, K. S. (1997c). *What makes on-line usage stimulating? Potential explanations for pathological Internet use.* Symposia paper presented at the 105th annual meeting of the American Psychological Association, August 15, 1997. Chicago, IL.