Internet Addiction: A Handbook and Guide to Evaluation and Treatment
Edited by Kimberly S. Young and Cristiano Nabuco de Abreu

CHAPTER 9

Psychotherapy for Internet Addiction

CRISTIANO NABUCO DE ABREU and DORA SAMPAIO GÓES

FEW ARE the psychotherapeutic approaches currently available for Internet addiction treatment, and those existing are still little known in the literature. Because this form of addiction has not yet been included in official medicine and psychology manuals, its research and knowledge are not extensive. However, although its emergence is recent, its manifestation in our practices, at schools, and in mental health outpatient units is increasingly observed. Thus, for the present chapter, psychotherapeutic intervention descriptions were searched in the Pubmed (U.S. National Library of Medicina, National Institutes of Health), Lilacs (Latin American and Caribbean databases in Health Sciences), Scielo (Scientific Electronic Library Online), and Google Academic databases, and in the general literature. Interventions performed in detoxification centers, for example, which are not described in the literature, were not addressed here. Our goal is to present to readers the existing studies, as well as the description of the therapeutic dimension of such applications. Then, we describe the standard psychotherapeutic intervention procedure that has been used in the population for approximately three years in our Impulse Disorders Outpatient Unit at the University of São Paulo, Institute of Psychiatry.

THE NATURE OF THERAPY WITH INTERNET ADDICTION

When it comes to psychotherapeutic interventions, results still provide very incipient data, and no one form of psychological intervention can be suggested as being the most recommended (gold standard) for the treatment of Internet

addiction. It is suggested that the support therapies (those giving emotional support to patients, focusing on the here and now) would be of great value, as well as the counseling therapies,[1] which could be used and coupled with family interventions as a manner of repairing the damage caused in the emotional relations. Although very few research studies have been described, the most frequently investigated approaches are cognitive behavioral therapy (CBT)[2] and motivational interview[3] (Beard, 2005; Wieland, 2005; Young, 1999).

Regarding the use of CBT, Davis (2001) described a proposal for understanding interventions by offering a more detailed description of the cognitive schemes involved in the change process (specific and generalized environmental factors, personal vulnerability, dependence styles, as well as intervention possibilities).

Within his proposal, the pathological Internet use shows two basic possibilities: (1) specific pathological use, describing the excessive use and abuse of specific Internet features by patients, such as unrestrictive access to chat rooms, MSN, social networks (facebook, orkut e.g.), erotic web sites, games (e.g., MMORPGs), eBay and shopping (e.g., eBay), and (2) generalized pathological use, relative to the time spent by users surfing the Internet (i.e., without a defined focus of interest and action). Davis (2001) stated that this dependence is settled at the moment when patients feel they have no social and family support, thereby developing the so-called maladaptive cognitions (which are

[1]Therapeutic counseling is delivered in a private, highly confidential setting. In the counseling session, patients have the opportunity to express their difficulties, dissatisfactions, conflicts, and questions to the counselor. In turn, counselors carefully listen to them, respecting their points of view. Through this process, counselors can then elicit an external vision of their questioning, help them explore creative alternatives for their options, and accompany them in the choice and decision-making process without posing biased judgments.

[2]Currently, cognitive behavioral therapy (CBT) is described as a structured, directive therapeutic approach that has clear, well-defined goals, is focused on the present time, and is used in the treatment of the most various psychological disorders. CBT's main objective is to produce changes in the patients' thoughts and meaning systems (beliefs), with the purpose of bringing about a longer-lasting emotional and behavioral transformation, rather than a short-lived decrease of symptoms. Thus, the cognitive conceptions have developed the most diverse proposals and created *cognitive adjustment* tools, such as the "dysfunctional thought records," "cognitive restructuring" techniques, "irrational belief identification" process, and a range of techniques supporting the practice of correcting or replacing dysfunctional thought patterns for more functional analysis and logics ones. Therefore, it is fundamental for the cognitive references that meaning *distortions* do not evolve in such a way to become maladaptive (Abreu, 2004).

[3]"Motivational interview" is a method of directive assistance that is centered in the patient being willing to promote an internal motivation to change a behavior by exploring and troubleshooting the ambivalence that the patient presents with. This method involves the patient showing a spirit of collaboration, participation, and autonomy with a sense of walking through it side by side with the therapist and being able to participate in his or her change process rather than just following directions. Motivational interview is a special means to help people recognize and take action on their current or potential problems. It is particularly useful in people who are reluctant to change and ambivalent about change. The goal is to help people in a manner that they can troubleshoot the ambivalence present and move on in their natural path to behavioral change. This is a direct, patient-centered counseling form that pursues behavioral change by assisting patients to explore and troubleshoot their difficulties (Payá & Figlie, 2004).

the mental evaluations or screeners of interpretation) about themselves and the world.

It should be highlighted that the clinical intervention option for cognitive-behavioral models has a justified cause. Because cognitive behavioral therapy shows good results in the treatment of other impulse-control disorders, such as pathological gambling, compulsive shopping (Caplan, 2002; Dell'Osso, Allen, Altamura, Buoli, & Hollander, 2008; Dell'Osso, Altamura, Allen, Marazziti, & Hollander, 2006; Hollander & Stein, 2005; Mueller & de Zwaan, 2008; Shaw & Black, 2008; Young, 2007), bulimia nervosa, and binge eating—disorders that are similar in their impulsiveness and compulsion characteristics—this approach naturally appears as a first-choice option, although *trials* of the treatment of Internet addiction involving control groups are still nonexistent (Hay, Bacaltchuk, Stefano, & Kashyap, 2009; Munsch et al., 2007).

Young (1999), the precursor and one of the pioneers in the study of Internet addiction, with numerous experiences at the Center for Online Addiction, offers some intervention strategies based on the cognitive behavioral therapy assumptions, and one of the focuses is moderation and controlled use of the Internet. According to the author, the therapy should use time management techniques that help patients to recognize, organize, and manage their time spent online, as well as techniques that help to set rational goals of utilization. In addition, it aims at collaboratively developing gratifying offline activities with patients, as well as some other coping techniques mostly targeted at enabling patients to deal with their difficulties and developing a support system and a system for more appropriate use.

A technique suggested by Young is the development of a personal inventory. As Internet addicts tend to neglect their hobbies and other interests due to the time spent searching for virtual interests, the individual is encouraged to complete an inventory containing the activities that used to be carried out and were disregarded after the problem emerged. This aims to help patients reflect from an experience contrast point of view (past versus future) that can assist them to better observe their decision-making process. This activity may help individuals become aware of their choices and thus motivated to try to resume the previous activities that have been lost.

The author also believes that time reorganization is an important tool in treating this dependence, and the therapist's role should be to help patients with specific identification and use, as well as to set a new agenda. Young reports from such interventions that it would be possible to therapeutically work by *practicing the opposite*, that is, making patients break their current Internet use routine and develop a new, more adaptive behavioral pattern. For example, if the patient goes online as soon as he or she arrives home from work and remains online until it is time to go to bed, the clinician may suggest that he or she take a break for dinner, watch the news, and only then go back to the computer. Therefore, this is a helpful form to reduce or discontinue the use.

Another technique is to identify some stimulant to log off ("External Stoppers Technique"); with the new agenda already developed for the Internet

use, the clinician suggests, for example, the use of an alarm clock to function as a warning for the patient that it is time to turn off the computer and carry out some other offline activity, such as going to work or school or, when it is late at night, simply going to bed to have some rest and try to sleep.

It is worth reminding that people with this type of addiction may experience many difficulties trying to discontinue their routine of use during treatment due to the change in time perception, or even because they experience a state of flow, just to mention some examples. Thus, in order to facilitate these discontinuation processes, goals that could help them keep their focus on the objectives as agreed upon with therapists are identified, but with the use of markers that divert the patients' attention. This technique, called setting goals, allows patients to have their attention diverted for brief time periods. Therefore, structured usage sessions could be scheduled through the definition of achievable goals. For example, if the patient remains online all day long on Saturdays and Sundays, a schedule with brief sessions of use followed by brief, although frequent, discontinuations could be designed. In Young's proposal, the use of a schedule of use is encouraged, provided that it is accomplishable.

When these plans fail, however, abstinence is another possible form of intervention. Some applications might serve as triggers for the reinforcement of continuous use. This means that patients should stop navigating particular web sites or even certain applications (e.g., MSN, Facebook, online games) that are most attractive for them, discontinuing the use from time to time, shifting to alternative forms such as sending and receiving e-mails, news search, bibliographical sources for their school works, and so forth.

The use of reminder cards is also an important tool to assist patients to keep their focus on the abstinence or reduction of uncontrolled use goals. For example, a card containing the five major problems caused by Internet addiction, as well as the five major benefits from reducing the use (or ultimately refraining from using a given application) should be listed. Then, the clinician instructs the patient to keep this card sufficiently near so that, if in a risky situation, he or she can review the card and be reminded about the positive consequences from refraining from the navigation, as well as the negative consequences from maintaining uninterrupted online activity.

Also from CBT interventions, Young (2007) reports a 12-session follow-up of 114 patients, who were evaluated in sessions 3, 8, and 10 (and in the six-month follow-up) with the use of the Internet Addiction Test (IAT) and the Client Outcome Questionnaire in order to evaluate: (1) motivation to reduce abusive use, (2) ability to control online use, (3) involvement with offline activities, (4) improvement of interpersonal relationships, and, finally, (5) improvement of offline sexual life (when applicable). Results show that online time management was the most difficult (96%) as reported by patients, followed by relationship problems (85%) due to the amount of time spent at the computer, and sexual problems (75%) due to less interest in real-life partners because of the online sex preference. The author's conclusion indicates

that CBT is effective in treating patients when it concerns Internet addiction-related symptom reduction, and that after six months patients were still able to overcome the obstacles to continuous recovery, despite the absence of a control group (Young, 2007).

Another intervention was described in the literature by Chiou (2008) with the purpose of analyzing the effects of the freedom of choice and the quantity of reward based on the cognitive dissonance theory precepts.[4] One hundred and fifty-eight teenage students experienced in online games were investigated with the use of the Online Games Addiction Scale for Adolescents developed by Wan and Chiou (2006) . Participants were randomized to groups regarding (1) freedom of choice (with vs. without) and (2) quantity of reward (high vs. medium vs. low). The experiment was conducted in brief sessions in which six randomly selected participants discussed online games addiction. Following this intervention, the participants were invited to analyze their arguments, as well as to write down the pros and cons for online games. As a manner of manipulating the reward, the participants were told that they would receive a prize for the completion of this task. Results show that lower rewards in the condition involving freedom of choice caused higher changes in the adolescents' behavior; that is, the author concluded that this could be a way to induce adolescents to reduce the use of online games (Chiou, 2008; Stravogiannis & Abreu, 2009).

Rodrigues, Carmona, and Marín (2004) described a case study also based on CBT techniques and associated with the motivational interview. At first, the reported patient sought help for her addiction problem; however, through a functional analysis,[5] precipitating factors such as problems with her husband and children and the maladaptive response to them were identified. The intervention was targeted to (1) figure out the problem and prepare the patient for change; (2) help her with the decision-making process and help her cope with the problem at hand; (3) deliver psychological treatment through stimulus control techniques, such as breaking connection habits, setting new

[4]Cognitive dissonance is a theory about human motivation that states it is psychologically uncomfortable to keep contradictory cognitions. The theory proclaims that dissonance, because it is uncomfortable, motivates the person to replace his or her cognition, attitude, or behavior. Leon Festinger proposed that dissonance and consonance are relationships between cognitions (i.e., between opinions, beliefs, awareness of the environment, and awareness of the person's own actions and feelings). Two opinions, beliefs, or items of awareness are dissonant when they do not match with each other; that is, they are incompatible. Festinger says there are three ways to deal with the cognitive dissonance, which are not considered mutually exclusive. They are: (1) One can try to replace one or more beliefs, opinions, or behaviors involved in the dissonance. (2) One can try to acquire new information or beliefs that will increase the existing consonance, thereby reducing the total dissonance. (3) One can try to forget or reduce the importance of those cognitions that maintain a dissonant relationship.

[5]The analysis of functional relationships represents a natural phenomena interpretation and investigation model that is present in the Skinnerian project of psychology constitution as behavioral science. Thus, the functional analysis refers to the investigation of the relationships between an individual's responses to objectively identified environmental stimuli. It is essential in studies that objectives include predicting and/or controlling behavior repertoires in specific situations.

goals to achieve it, withdrawing a specific application or web site; and, finally, (4) developing an improved interpersonal problem coping ability. The result of the intervention was a generalized increase of the resources to cope with family difficulties, as well as higher autonomy and consequent amplification of activities.

Zhu, Jin, and Zhong (2009) conducted a controlled study using CBT. With 47 patients diagnosed with Internet addiction, the following two intervention modalities were proposed: (1) 10 CBT sessions and (2) 10 CBT sessions combined with electroacupuncture (EA). Anxiety, depression, Internet addiction, and overall health condition scales were applied. Using psychologic intervention alone or combined with EA significantly reduced anxiety and improved self-conscious health status in patients with Internet addiction, but the effect obtained by the combined therapy was better.

Using interpersonal psychotherapy,[6] Liu and Kuo (2007) evaluated five educational institutions in Taiwan with a sample consisting of 555 individuals, in an attempt to identify predicting Internet addiction factors. The main objective was to achieve symptom relief and improvement in interpersonal relationships. Therefore, parent-child adjustment scales adapted for Taiwan by Huang, interpersonal relationship scales developed by Huang, and Young's social anxiety and Internet addiction scales (1998) were used. The results showed that (1) interpersonal relationships are significantly related with or even considered as a direct reflex of the interaction pattern observed in the parent-child interaction, (2) this interpersonal relationship shows a significant influence on social anxiety, and (3) the triad comprising parent-child relationship, interpersonal relationships, and social anxiety substantially impacts the emergence of Internet addiction and its severity. The authors concluded by stating that these findings are consistent with the point of view shared by various Internet addiction investigators that this pathology would be a poorer type of coping response, and therefore, it is used as a way to precariously wind around the difficulties encountered in the real world. It was observed in this investigation that those Internet users showed higher rates of social anxiety and emotional numbing, which indicated frustrated previous relationships.

Based on Young's (1999) ACE Cybersexual Addiction Model, which was developed to explain how cyberspace induces a favorable atmosphere for online sexually adulterous and promiscuous behaviors, Young et al. (2000) described cybersexual addiction and its implications for couples therapy. According to

[6]Mainly based on the ideas from Sullivan's interpersonal psychoanalysis school, on Freud's studies of grief, and on Bowlby's attachment theory. Initially developed for the treatment of depression major, interpersonal psychotherapy was shown to be highly effective as a therapy for a number of other disorders. Interpersonal psychotherapy tries to be centered on a problematic area as the treatment focus. Four of the problematic areas often found in depressed patients are (1) grief (loss due to death); (2) interpersonal disputes (with partner, children, other family members, friends, workmates); (3) shift of roles (new job, leaving home, completion of studies, relocating, divorce, economic changes, or other family-related changes); (4) interpersonal deficits (loneliness, social isolation).

the ACE model, three variables may lead to virtual adultery: anonymity, convenience, and escape.

Anonymity favors the user's involvement in erotic chats without fearing to be discovered by the spouse. The person therefore experiences a sense of control over the online conversation's content and form, the type that typically occurs in the privacy of the individual's home, office, or bedroom. Cyberspace's privacy, according to the author, allows the person to secretly share thoughts, desires, and feelings, which may open a door for a flirt and may often lead to virtual adultery.

The *convenience* of online applications such as chat rooms, instant messages, and so on provides a favorable means to meet other people. Conversations may begin with an exchange of e-mails or encounters in chat rooms, and may become intense and passion-ridden, possibly leading to the occurrence of phone calls and potential real-world dates.

Seemingly, sexual satisfaction serves as a reinforcer of online sexual behaviors, but the major reinforcement in such cases, according to Young, is the ability to fuel a world of online fantasies that might offer an emotional or mental *escape* from the everyday stresses and strains. For example, a woman with a broken marriage might make use of chat rooms in order to escape from the feeling of emptiness and to feel important or even desired by her virtual partners.

Virtual affairs and cybersexual encounters often appear as a symptom of difficulties preceding the Internet presence in a couple's life. An impoverished communication with the spouse, some other kind of sexual dissatisfaction, parenting difficulties, and financial issues are common problems in marriages; however, such difficulties provide powerful triggers for the search of virtual affairs.

Virtual encounters also favor the expression of privations experienced by couples, such as sexual fantasies, romance, and passion that may have become absent in the current relationship. Thus, dealing with virtual problems becomes an easier solution for spouses than facing the existing difficulties in the marriage. The virtual partner, then, offers the necessary understanding and comfort for feelings driven by anger, sorrow, or otherwise that were not spoken out in the real relationship. Young et al. (2000) concluded by stating that in psychotherapy with couples, clinicians should contribute for communication improvement and for the couple to be able to set an open, honest dialogue that is exempted from hard feelings like guilt or anger. Some suggestions include:

- *Setting specific goals.* Goals should be set in order to evaluate each one's expectations toward the use of the computer and commitment to the current relationship's reconstruction.
- *Using "I" statements in order to not blame the other.* The therapist should emphasize the use of nonjudgmental, nonaccusatory language. This way, the clinician should help patients to rephrase their opinion and feeling

expressions. For example, instead of saying, "You never pay attention to me because you are always at this computer!" one could replace it for "I feel abandoned when you spend too much of our time together at the computer." As practicing the use of "I," the therapist also recommends that patients focus their statements on the present moment and avoid negative words, as these would function as new triggers for renewed disharmony.

- *Empathy.* Help couples truly listen to the significant other. When a partner tries to explain the reasons for his or her actions, it is important to help the other partner hold back feelings of anger or loss of trust so that he or she can as openly as possible listen in order to expand the communication and, as a result, the mutual understanding.

Considering Alternatives In case face-to-face dialogue is difficult, the clinician may suggest other forms of communication, such as writing letters or even emails. Writing allows for higher flow thought and feeling expressions without the other's interruption. It also facilitates a less defensive and more open reading. With the purpose of assisting patients to develop effective coping strategies in the treatment of Internet addiction, the individual format of psychotherapy may be used, as well as groups in the form of support groups or therapy groups, self-help programs, or family guidance groups (Davis, 2001; Dell'Osso et al., 2006; Young, 1988; Young, 1999).

According to the perspectives presented above, we may consider the contributions as still minor in terms of number; however, they are expressive in their proposals and interventions. Therefore, further follow-up studies to determine which psychotherapeutic approach could be considered as more effective in a short term and as having good consistency to sustain long-term effectiveness are needed. Because the distinct psychotherapy models feature different mechanisms involved in the change process, a more direct therapeutic efficacy comparison is likely to take some time to be tested. It is, however, worth highlighting that, although distinct models have been described, moderation and controlled use of the Internet constitutes the focus of services in most of them.

STRUCTURED COGNITIVE THERAPY

Internet addiction is treated in our outpatient service through the Structured Cognitive Psychotherapy Program (Abreu & Góes, in press), which has been applied for over three years to the population. From the theoretical and practical axes of the cognitive therapy, this intervention is delivered in groups including adolescents and adults for 18 weeks. As the psychotherapy progresses, patients are also followed up by psychiatrists whenever needed for the treatment of associated comorbidities. In addition, in the case of treatment for adolescents, a family intervention group is also planned to occur simultaneously (Barossi, Meira, Góes, & Abreu, 2009). Because Internet

addiction, according to several authors, already is indicated for future inclusion in *DSM-V* (impulse control disorders category) (Block, 2008), our goal in psychotherapy is primarily to restore the control over an appropriate use of the Internet (i.e., to implement an adaptive routine of controlled healthy use) (Abreu, Karam, Góes, & Spritzer, 2008). Furthermore, as the Internet becomes more and more present in people's everyday lives, whether in the form of social networks due to academic needs or in simpler forms of daily communication, the virtual life turns into a virtually new instance of life experiences in the 21st century; therefore, intending to thoroughly ban it—as with the treatment of alcohol or drug abuse—is nothing but a lack of knowledge about the Internet's real dimensions and extensions.

Initial Phase

By considering the characteristics described earlier, it is clear that the so-called virtual weaning cannot rely on any form of acceptance or collaboration from patients unless the severity of the case is not yet very pronounced. Therefore, in the initial phases of group treatment, the negative impacts resulting from excessive use are little addressed; instead, the *facilities* and *benefits* from this contact are emphasized (see Table 9.1, week 2). Then, various aspects are discussed, such as the importance of the Internet for each one's life or the advantages from using it. Obviously, this attitude of the professionals surprises all of the patients; they are expecting to hear any discouraging message about

Table 9.1
Structured Cognitive Psychotherapy Model for the Treatment of Internet Addiction

Week	Topics
—	Application of inventories
1	Program presentation
2	Analysis of the Internet's positive aspects
3	Everything has a consequence or price.
4–5	Do I like to or need to navigate the Web?
6–7	What the experience of needing is like (*problem*)
8	Analysis of the most often visited web sites and the subjective sensations experienced
9	Understanding the triggering mechanism
10	Life line technique (*pattern*)
11	Deepening into deficient aspects
12	Working on emerging topics
13	Working on emerging topics
14	Working on emerging topics
15–16	Alternative actions (coping) (*process*)
17	Preparation for termination
18	Termination and application of inventories

Source: Abreu and Góes (in press).

the Internet, not the advantages of using it. And best of all is that the effect is immediate. Following this first contact, everybody progressively starts to express the relevance of the Internet to their lives and openly discusses the quantity of (positive) change experienced after this period. When analyzing each person's discourse, the role played by the Internet in the individual's life becomes clear. It is an understatement to mention the aspects linked to loneliness lessening or an alternative manner of social inclusion, renewed ability to cope with problems, or even mood regulation (*"The Internet is my virtual Prozac"*), factors that have already been widely described in the literature (Chak & Leung, 2004; Ko et al., 2006; Shaffer, Hall, & Bilt, 2000). Thus, by promoting this type of discussion, it is evidenced that the virtual life is a major option, and as a result, addressing its bad side would be naive, to say the least.

Psychotherapy researchers (Safran, 1998) have long warned about the construct called *therapeutic alliance*. According to Safran, this working alliance (or interpersonal trust building between patient and therapist) takes place within the first four meetings; that is, in order for the psychotherapy to be successful, the work in this phase should be careful, since the psychotherapy outcome depends on it. Therefore, good results or a great amount of personal change will be related with the construction of a good alliance. Early withdrawal or low levels of personal change are related with a poor alliance. For this reason, in this phase we do not use any intervention that might contain confront, doubt, or even disbelief elements toward the patients' accounts. This is what we do in the first four sessions.

In this initial phase in which the alliance is still being built, the social and psychological *consequences* from Internet use are addressed; that is, the complaints that are most frequently heard from family members, friends, and workmates are voiced (week 3). The (usually failed) relationship histories are therefore elicited, and this makes the Internet a potential, healthier space for relationships. Interestingly, the group's exposure to these elements interferes positively with the group dynamics. Saying that the most refractory members inevitably end by recognizing in the others the very same difficulties, thereby creating true social glue among the participants of the therapeutic group, is an understatement. Therefore, at this point, any difficulty of cooperation or collaboration that had initially been shown starts to significantly fade away.

In the following sessions, we move toward exploring the *personal implications* from excessive use, as it is observed, for example, in the following dialogues: *"I get online because I feel I am accepted there," "There, I find a more dignifying life," "In the Internet I have a partner who really wants me," "In the Internet I feel as fulfilled as I could never be in real life."* Thus, patients begin to notice that the choice for the virtual life is nothing but an alternative, although maladaptive, way to cope with pressure, fear, or exposure situations. This is the way that the vicious circle comprehending this addiction starts to be identified. In this phase it is common that the Internet's roles are questioned—that is, if the Internet is actually an *option* or a crying *need* (weeks 4 and 5).

Interestingly, at this point patients themselves already begin to establish a cause-effect relationship between their avoidant behaviors and the use of the Web; that is, they can now identify that the behavior linked to excessive use (and what they had initially classified as a benefit) is, in fact, a set of failed coping behaviors or unsatisfied needs, eliciting a clear lack of personal management toward the environment and turning the Internet into a new possible (but not adequate) way of coping.

Intermediary Phase

Having established a therapeutic alliance and ensured the relationship among group members and the professionals, we start with the psychotherapeutic interventions themselves. However, prior to going into them, the role of a *guardian angel* is established. This person is randomly chosen by the professionals (the guardian angel is chosen by the patients or the therapists when necessary), and his or her role is to take care of any of the group participants who are not feeling assured and not reporting being well on the meeting day during the week. The group members are instructed that this contact will be made through phone calls or even personal meetings. The guardian angel is encouraged to be present in difficult and stressful situations, providing the required support and backup. In this manner, a type of positive reinforcing relationship among people that is obviously hardly present in the life of each of them is developed. By working like this, we gradually introduce new experiences that can compete with those achieved only through the Internet. This caregiver's role may be rotated among people whenever needed, thereby increasing the possibilities of bond among the group's participants.

Although the relationships previous to and resulting from the abusive Internet use are now clearer for the group members, none of them has yet been the target of any therapeutic intervention; therefore, the interventions will now be more specific, with the purpose of changing the dysfunctional responses. In this phase, patients are asked to complete a weekly diary containing the experiences lived during the week, particularly recording those concerning the unsatisfied *emotional needs* that are eventually found in the virtual world (weeks 6, 7, and 8). They record the following: situations triggering the desire for the Internet, hours spent, associated thoughts, feelings experienced, and all types of information that help them map the chain of behaviors resulting from these unsatisfied needs.

This record will serve as the material to discuss the adverse conditions with the group and to receive the appropriate guidance from the professionals on how to deal with such situations the next time they occur. Thus, each week, one or two patients in the group describe the situations, which are then worked on by the group in general and will serve as targets for specific techniques of therapeutic intervention (cognitive restructuring, assertiveness training, role-play, etc.).

The procedure used in this psychotherapy is in line with the precepts described by Mahoney (1992), once it aims to perform the work on the three Ps: *problem*, *pattern*, and *process*. In the beginning of the clinical process, the objective is to focus on the problem with all of its particularities and variations (four first sessions). Next in this intermediary phase, the analysis of the overall patterns is deepened—those patterns that are long-standing in the patients' lives and are directly responsible for the emergence of the same problems presented in different shapes; that is, they are composed of the same recurrent coping strategies put in action by the same situational triggers (week 9). In this sense, we feel satisfied when patients are able to hold a clear vision of the maladaptive personal mechanics and, as a result, can act in a manner distinct from that used in the past, which made the Internet their only option for coping.

A technique that is often used currently is the *life line technique* (Gonçalves, 1998), in which patients are asked to complete a full record of their lives (from birth to the present date) (week 10). A horizontal line is drawn on a piece of paper and the most significant periods of time are written above it (with the respective ages) and, under the line, the significant facts and impressions (positively or negatively speaking). This horizontal graph increases the possibilities of identifying the emotional wounds and leads patients to better visualize the repetition of the problems faced across their lives. This makes it easier for them to notice that the personality of each person is gradually developed during his or her life. The graph resembles a railroad system, with a main line across which a number of stations (or situations) are placed toward a given direction but that soon divides into several alternative routes, some of which deviate from the main route while others run on a convergent course. The abusive Internet use would be then considered as a new form of manifestation of an old behavior pattern (second P).

With this, we try to show each patient that a full trail of attitudes (and mainly relationships) has been built and has defined the possible perspectives of interaction with the world in a repetitive manner. So, understanding why the Internet turns into a great escape and a better place for emotional management and control becomes an easier task.

A critical assumption in our focus is that human beings are predisposed for interpersonal relationships, and much of the maladaptive learning comes from individuals' attempts to avoid the disintegration of certain important interpersonal relationships (Safran, 1998).

When looking into this process as a whole, a deeper analysis of the processes (third P) is developed, through which such patterns and problems had been built and manifested throughout the individual's life. This is when the *change perspectives* are emotionally and visually outlined for each person (weeks 11–14). The aim here is the following:

- At first, the therapist needs to provide a safe haven in which patients can explore themselves, as well as the relationships that were established in the past or might be developed in the future.

- Join patients in the exploration and encourage them to examine the situations lived and roles played by them, as well as their reactions to those situations.
- Elicit from patients the ways they construe, inadvertently, the reactions of the world around them, on the grounds of the dysfunctional models resulting from their past life (their emotional and cognitive modus operandi).
- Define the Internet's role in this dysfunctional coping process.
- Once this world map is made, the behavioral pattern is changed and, as a result, we interfere with the abusive behavior in the Internet use.

Once therapists have established a safe environment for each of the patients in the group, the basic conditions for the progression of a good psychotherapy will be assured. The safety offered by the professionals and group members is considered to be an important intervention tool, at a practical level, to convey and understand the meanings as they facilitate the new information processing. In fact, as with any other psychotherapy process, at this point little is discussed about the aspects initially responsible for the lives of each one in the group (abusive Internet use), but now the *personal coping perspectives* in emotional terms and in challenging situations take place (week 15). Given the progression of discussions, the level of emotional exchange, and the challenges and change promises expressed to the group, the role played by the Internet becomes second ranked.

Final Phase

The final phase is characterized by the follow-up of the changes achieved by each member or by the reinforcement of those still requiring further attention. Obviously, not all patients will show the same type or same quantity of change; however, the social role played by the group becomes a preponderant factor (week 16). Broader coping styles and relationship styles are more carefully examined at this point. Additional attention is given to families (in the case of adolescents) and romantic partners (in the case of adults), by analyzing the changes from occurrences prior to the beginning of the treatment and recorded, and now possibly present in a distinct manner. This contrast effect indicating the changes achieved through psychotherapy (week 17) grants to everybody the possibility of constructing an answer to the question: *What life do I want to live?*

Of course, most of the abusive Internet users show exacerbated forms of personal vulnerability (low tolerance to frustration, high damage avoidance, social anxiety, low self-esteem), and among other deficiencies, the World Wide Web becomes one of the best ways to reduce real life's stress and fear. Addicts at any age use the Web as a social and a communication tool, as they have a higher pleasure and satisfaction experience when they are online (virtual experience) than when they are offline (Young, 2007). Such patients stop eating

regularly, lose their sleep-wake cycle, stop going out of the house, let their work and personal relationships become impaired, relate only with people they know in the virtual world, and so on. Therefore, it is not so surprising that these people easily stay online for over 12 hours a day, reaching relatively often 35 consecutive hours online; gather in the course of one year more than four million erotic photos; or receive over three thousand e-mails on just one day. Indeed, the geography of life is changed. It should be highlighted that the interventions described earlier are applicable to an adult population within an outpatient rather than in an inpatient setting.

When treating adolescents simultaneously to the structured program (Table 9.2), parents and/or caregivers are summoned for follow-up, because it is our understanding that, in these cases, family interventions are the supporting actor for a good prognosis. The sequence of topics used in the Guidance Program for Parents and Internet-Addicted Adolescents (Barossi, Meira, Góes and Abreu, 2009) is described in Table 9.2.

The program aims to favor parents' adhesion to adolescents' treatment and develop alternative actions to deal with the conflicts in order to achieve a more functional parent-child communication. The program consists of 12 meetings at two-week intervals (90 minutes long) with the adolescents' parents, who also attend a weekly group with other professionals of the team. At each meeting, the goals are introduced to the parent group, following the schedule as adjusted to the process evolution.

For the group work development, audiovisual resources, bibliographic material, and group dynamics are used to facilitate reflection and communication among the members. At the end of the process there is a follow-up phase consisting of three additional monthly meetings.

The process designed in the therapeutic program contributes to the development of a more empathic parent-child relationship, broadening the possibilities for a joint troubleshooting of the problems associated with excessive Internet use by adolescents. The group's attendance should be highlighted, so that it remains regular up to the end of the process.

CONCLUSION

There are several psychotherapeutic treatment proposals for patients with Internet addiction. The intervention plans holding the highest representativeness make use of cognitive behavioral therapy as their theoretical basis. This preference occurs because of CBT's high effectiveness reported in the treatment of other psychiatric disorders. However, despite this preference, there are no trials to date that have included control groups to test the effectiveness of this theoretical model.

Due to the increasingly more frequent use of the Internet by all age groups of the population, further studies to determine which treatments and approaches are more effective for each age group, as well as for the various types of Internet addiction are warranted. Long-term follow-up studies are critical to elicit and indicate the most effective intervention strategies.

Table 9.2
Structured Cognitive Psychotherapy Model for the Treatment of Internet Addiction in Adolescents and Parents

Meeting Goal (adolescents)		Meeting Goal (parents)
1	Express feelings and thoughts.	Write down on a record sheet the experiences shared with the child.
2	Reduce the frequency of criticisms and increase the empathy among the group.	Describe the child's adequate and inadequate behaviors; indicate the adequate ones and try not to reinforce the inadequate ones.
3	Learn about the potential reasons and interests associated with the use of the Internet.	Observe the child's use of the Internet on different days. Write down the experiences on the record sheet.
4	Evaluate negative beliefs and expectations that are hindering the management of new behaviors.	Write down in a diary the personal sensations when negative behaviors come up.
5	Distinguish the adolescent's inadequate behaviors due to parental care deficit or excess.	Identify and describe potential influences of the abusive Internet use.
6	Differentiate rights from privileges given in parenting.	Survey the rights and privileges granted to the child.
7	Functionally analyze the adolescents' and the parents' or caregivers' behaviors.	Compare their parenting methods with those adopted by their parents (trans-generational pattern)
8	Identify problem-solving procedures	Apply a problem-solving exercise.
9	Learn new social skills and educational practices.	Experience alternative forms of parenting.
10	Develop a family support repertoire for the maintenance of the changes achieved.	Keep consistent with the parenting methods adopted with the child.
11	Acquire family support for vulnerability factors.	Recognize the relapse risk factors and use the strategies learned at the therapeutic program.
12	Evaluate interventions of behavioral and emotional changes and consequences.	Report on the experience with the meetings.
	Follow up.	Identify the effects on the reduction of the use and/or relapses.

REFERENCES

Abreu, C. N. (2004). Introdução às terapias cognitivas. In C. N. Abreu & H. Guilhardi, *Terapia comportamental e cognitivo-comportamental: Práticas clínicas* (pp. 277–285). São Paulo: Editora Roca.

Abreu, C. N., & Góes, D. S. (in press). Structured cognitive psychotherapy model for the treatment of Internet addiction: Research and outcome.

Abreu, C. N., Karam, R. G., Góes, D. S., & Spritzer, D. T. (2008). Internet and videogame addiction: A review. *Revista Brasileira de Psiquiatría*, *30*(2), 156–167.

Barossi, O., Meira, S., Góes, D. S., & Abreu, C. N. (2009). Internet addicted adolescents' parents guidance program—PROPADI. *Revista Brasileira de Psiquiatría*.

Beard, K. (2005). Internet addiction: A review of current assessment techniques and potential assessment questions. *CyberPsychology & Behavior*, *8*(1), 7–14.

Block, J. (2008). Issues for DSM-V: Internet addiction. *American Journal of Psychiatry*, *165*, 306–307.

Caplan, S. E. (2002). Problematic Internet use and psychosocial well-being: Development of a theory-based cognitive-behavioral measurement instrument. *Computers in Human Behavior*, *18*(5), 553–575.

Chak, K., & Leung, L. (2004). Shyness and locus of control as predictors of Internet addiction and Internet use. *CyberPsychology & Behavior*, *7*(5), 559–570.

Chiou, W. B. (2008). Induced attitude change on online gaming among adolescents: An application of the less-leads-to-more effect. *CyberPsychology & Behavior*, *11*(2), 212–216.

Davis, R. A. (2001). A cognitive-behavioral model of pathological Internet use. *Computers in Human Behavior*, *17*(2), 187–195.

Dell'Osso, B., Allen, A., Altamura, A. C., Buoli, M., & Hollander, E. (2008). Impulsive-compulsive buying disorder: Clinical overview. *Australian and New Zealand Journal of Psychiatry*, *42*(4), 259–266.

Dell'Osso, B., Altamura, A. C., Allen, A., Marazziti, D., & Hollander, E. (2006). Epidemiologic and clinical updates on impulse control disorders: A critical review. *European Archives of Psychiatry and Clinical Neuroscience*, *256*(8), 464–475.

Gonçalves, O. F. (1998). *Psicoterapia cognitiva narrativa: Manual de terapia breve*. Campinas, Brazil: Editorial Psy.

Hay, P. P., Bacaltchuk, J., Stefano, S., & Kashyap, P. (2009). Psychological treatments for bulimia nervosa and binging. *Cochrane Database Systematic Reviews 7*(4), CD000562.

Hollander, E., & Stein, D. J. (2005). *Clinical manual of impulse-control disorders*. Arlington, VA: American Psychiatric Publishing.

Huang, Z., Wang, M., Qian, M., Zhong, J., & Tao, R. (2007). Chinese Internet addiction inventory: Developing a measure of problematic Internet use for Chinese college students. *CyberPsychology & Behavior*, *10*, 805-811.

Ko, C. H., Yen, J. Y., Chen, C. C., Chen, S. H., Wu, K., & Yen, C. F. (2006). Tridimensional personality of adolescents with Internet addiction and substance use experience. *Canadian Journal of Psychiatry*, *51*(14), 887–894.

Liu, C. Y., & Kuo, F. Y. (2007). A study of Internet addiction through the lens of the interpersonal theory. *CyberPsychology & Behavior*, *10*(6), 779–804.

Mahoney, M. J. (1992). *Human change processes: Scientific foundations of psychotherapy*. New York: Basic Books.

Mueller, A., & de Zwaan, M. (2008, August). Treatment of compulsive buying. *Fortschritte der Neurologie Psychiatrie*, *76*(8), 478–483.

Munsch, S., Biedert, E., Meyer, A., Michael, T., Schlup, B., Tuch, A., & Margraf, J. (2007). A randomized comparison of cognitive behavioral therapy and behavioral weight loss treatment for overweight individuals with binge eating disorder. *International Journal of Eating Disorders*, *40*(2), 102–113.

Payá, R., & Figlie, N. B. (2004). Entrevista motivacional. In C. N. Abreu & H. Guilhardi, *Terapia comportamental e cognitivo-comportamental: Práticas clínicas* (pp. 414–434). São Paulo: Editora Roca.

Rodriguez, L. J. S., Carmona, F. J., & Marín, D. (2004). Tratamiento psicológico de la adicción a Internet: A propósito de un caso clínico. *Revista Psiquiatría de Faculdad de Medicina de Barna*, *31*(2), 76–85.

Safran, J. (1998). *Widening the scope of the cognitive therapy: The therapeutic relationship, emotion and the process of change*. New York: Jason Aronson.

Shaffer, H. J., Hall, M. N., & Bilt, J. V. (2000). Computer addiction: A critical consideration. *American Journal of Orthopsychiatry*, *70*(2), 162–168.

Shaw, M., & Black, D. W. (2008). Internet addiction: Definition, assessment, epidemiology and clinical management. *CNS Drugs*, *22*(5), 353–365.

Stravogiannis, A., & Abreu, C. N. (2009). Internet addiction: A case report. *Revista Brasileira de Psiquiatria*, *31*(1), 76–81.

Wan, C.S., Chiou, W.B. (2006). Psychological motives and online games addiction: a test of flow theory and humanistic needs theory for Taiwanese adolescents. *CyberPsychology & Behavior*; *9*: 317–24.

Wieland, D. M. (2005, October–December). Computer addiction: Implications for nursing psychotherapy practice. *Perspectives in Psychiatric Care*, *41*(4), 153–161.

Young, K. S. (1998). Internet addiction: The emergence of a new clinical disorder. *CyberPsychology & Behavior*, *1*(3), 237–244.

Young, K. S. (1999). *Internet addiction: Symptoms, evaluation, and treatment*. Retrieved July 20, 2006, from http://www.netaddiction.com/articles/symptoms.pdf

Young, K. S. (2007). Cognitive behavior therapy with Internet addicts: Treatment outcomes and implications. *CyberPsychology & Behavior 10*(5), 671–679.

Young, K. S., Cooper, A., Griffiths-Shelley, E., O'Mara, J., & Buchanan, J. (2000). Cybersex and infidelity online: Implications for evaluation and treatment. Retrieved July 23, 2009, from http://www.netaddiction.com/articles/symptoms.pdf

Zhu, T. M., Jin, R. J., & Zhong, X. M. (2009). Clinical effect of electroacupuncture combined with psychologic interference on patient with Internet addiction disorder. Zhongguo Zhong Xi Yi Jie He Za Zhi. Mar;29(3): 212-4.