

## Understanding Online Gaming Addiction and Treatment Issues for Adolescents

KIMBERLY YOUNG

*The Center for Internet Addiction Recovery, Bradford, Pennsylvania, USA*

*Massive Multi-user Online Role-Playing Games or MMORPGs as they are often called are one of the fastest growing forms of Internet addiction, especially among children and teenagers. Like an addiction to alcohol or drugs, gamers show several classic signs of addiction (Grusser, Thalemann, and Griffiths, 2007). They become preoccupied with gaming, lie about their gaming use, lose interest in other activities just to game, withdrawal from family and friends to game, and use gaming as a means of psychological escape (Leung, 2004). This paper explores the emergence of online gaming addiction and its impact on individuals and families. This paper reviews the nature of online games and what makes them addictive among some players. As computers are relied upon with greater frequency, detecting and diagnosing online gaming addiction may be difficult for clinicians, especially as symptoms of a possible problem may be masked by legitimate use of the Internet. This paper reviews the warning signs of online gaming addiction, adolescent issues involved in gaming addiction, especially as the industry targets youth, and parenting and therapy considerations for this emergent client population.*

### THE EMERGENCE OF ONLINE GAMING ADDICTION

Over the last decade, the concept of Internet addiction has grown in terms of its acceptance as a legitimate clinical disorder often requiring treatment (Young, 2007). Hospitals and clinics have emerged with outpatient treatment services for Internet addiction, addiction rehabilitation centers have admitted new cases of Internet addicts, and college campuses have started support groups to help students who are addicted.

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Address correspondence to Kimberly Young, Professor of Management Sciences, School of Business, St. Bonaventure University, St. Bonaventure, NY 14778. E-mail: [kyoung@sbu.edu](mailto:kyoung@sbu.edu)

The Internet is a new technology that has impacted the world and provided many benefits to its users. At the same time the Internet has had negative ramifications. Some people are becoming preoccupied with the Internet, are unable to control their use, and are jeopardizing employment and relationships. The concept of "Internet addiction" has been proposed as an explanation for uncontrollable, damaging use of this technology.

Studies on Internet addiction originated in the United States. More recently, studies have documented Internet addiction in a growing number of countries such as Italy (Ferraro, Caci, D'Amico, & Di Blasi, 2007), Pakistan (Suhail & Bargees, 2006), and Czech Republic (Simkova & Cincera, 2004). Reports also indicate that Internet addiction, especially to online games has become a serious public health concern in China (BBC, 2007), Korea (Hur, 2006), and Taiwan (Lee, 2007). About 10 percent of China's more than 30 million Internet gamers were said to be addicted. To battle what has been called an epidemic, Chinese authorities regularly shut down Internet cafes and instituted laws to limit the number of hours adolescents can play online games.

Excessive gaming has been identified as a specific subtype of Internet addiction (Block, 2008). It is difficult to estimate how widespread the problem is, but according to the American Medical Association, up to 90 percent of American youngsters play video games and as many as 15 percent of them—more than 5 million children—may be addicted (Tanner, 2007). Problems stemming from online games have become so serious that the first Detox Center for Video Game Addiction opened in the Netherlands (CBSNews.com, 2006). "Video games may look innocent, but they can be as addictive as gambling or drugs and just as hard to kick," explained Keith Bakker, director of Amsterdam-based Smith & Jones Addiction Consultants and founder of the center.

### Virtual Worlds

To understand online gaming addiction, it is important to understand how the addiction stems from the creation of virtual worlds. New studies have shown that immersion into online games allows users to become addicted (Yee, 2006a).

In the 1980s, games such as Centipede, Space Invaders, Pac Man, and Donkey Kong were popularized. These were single-player games against the machine and getting good at the game only meant a high score and improvement of the gamers' eye-hand coordination. By the 1990s, gaming evolved from single-player games to gaming *experiences*. Gamers could become immersed in a virtual world that they helped to create. Games such as Doom and Quake were introduced that allowed players to create new rooms, customize their characters, and specify the kinds of weapons used.

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As the gaming revolution evolved, players could create rich, malleable environments from designer-generated fantasies to complex Hollywood movie themes. By the late 1990s, the gaming industry exploded. Manufacturers such as Sony and Microsoft have developed more sophisticated and interactive features into their games and the technology has become much more portable and mobile making online games accessible anytime and anywhere.

Online games evolved into more than games but rather they are living, self-contained three-dimensional societies. Each game has its own scenery from forests, prairies, beaches, mountains, and towns. Players can immerse themselves and collectively evolve in these virtual worlds. Each game has its own currency to buy goods and services. Gold, coins, jewels, bears, or pelts may be used to buy weapons, armor, or magical potions, depending upon the economics and currency of the game. To play, players first create a "character," or a virtual version of themselves. The player must decide a character's race, its species, history, heritage, and philosophy. The genres and themes vary, as a player could be a greedy business type in one game, a strong warrior in another game, or an elf with magical powers in another.

As online gaming evolved so have the forms that characters can take, so that players can select more detailed representations for their characters. For instance, for human characters, players can select skin color, hair color, height, weight, and gender. They also can decide on a character's profession, ranging from a banker, lawyer, dancer, engineer, thief, bounty hunter, elf, or gnome, depending upon the game. Each player must choose a name for the character. Some take great care and pride in determining just the right name. In fact, in some strange way, a character's name seeps into the player over time. They spend hours living as this "other person" and begin to identify with a character that feels more real and less fictional the longer they play.

Yee (2006a) also suggested that hardcore players tend to be younger players who may suffer from emotional problems or low self worth and esteem. He suggested that individuals who have other emotional problems may be more at risk to develop an addiction to interactive gaming. In the game, these interactive environments allow individuals to experiment with parts of their personality, they can be more vocal, try out leadership roles, and new identities. The problem becomes when these younger players rely upon these new online personas and the distinction between what is real and what is a fantasy becomes blurred (Young, 1998).

### Impact on Individuals and Families

In one of the most dramatic stories of online gaming addiction, in August 2005, a 28-year-old South Korean man died—not by committing suicide, but

after playing the game *Starcraft* at an Internet café for 50 hours straight (BBC, 2005). By all reports, the man had not slept properly and had eaten very little in that time. While no autopsy was performed, he was believed to have died from heart failure stemming from exhaustion.

An addiction to online games can cause a tremendous amount of consequences to the gamer. Gaming addicts willingly forgo sleep, food, and real human contact just to experience more time in the virtual world. Gaming addicts sometimes play for ten, fifteen, or twenty hours straight in a single gaming session, every day. Because of the complexity of the game, players are constantly stimulated in an ever-changing virtual environment. "Just a few more minutes" can turn into hours as the gaming addict searches for the next conquest or challenge. Gaming addicts must play for long periods of time in order to excel at the game. Online games, especially MMORPGs are persistent worlds. That is, like the real world, they continue to exist whether players are in them or not. Characters who log out of a world simply enter a state of suspended animation and reappear in the same place again they log back in. No one freezes his games into a save state when they depart, the way they do in a traditional video game.

Like the real world, MMORPG characters can grow indefinitely, becoming stronger, smarter, and more powerful over time (Kelly, 2004). In order for them to grow, they must dedicate significant amounts of time playing the game. In doing so, they acquire more knowledge, advancement, and strength in the game. This propels gaming addicts to play for significant periods of time, justifying their need to stay online and play. Health problems or potential health problems pale in comparison to having the character grow.

Online gaming is an emotionally draining and time-consuming activity. To create more time for the computer, gaming addicts neglect sleep, diet, exercise, hobbies, and socializing (Young, 2004). They let their own health go as they do not get the proper rest and nutrition they need. They may suffer a number of health problems from back strain, eye strain, carpal tunnel syndrome, and repetitive stress injury. As one gaming addict explained, "I stopped bathing. I didn't eat unless it was a quick snack I could eat in front of my computer. I lost weight. My skin was pasty and pale. I didn't shave or comb my hair. I did nothing. I looked so bad that my mother told me I looked more like a heroin addict."

MMORPGs are inherently social environments created by multiple users. A study conducted by the International Gaming Research Unit at Nottingham Trent University in the United Kingdom has examined the social interactions that occur both within and outside of MMORPGs (Cole and Griffiths, 2007). In one of the most comprehensive studies to date, the sample consisted of 912 self-selected MMORPG players from 45 countries. MMORPGs were found to be highly socially interactive environments providing the opportunity to create strong friendships and emotional relationships. The study demonstrated

that the social interactions in online gaming form a considerable element in the enjoyment of playing. The study showed MMORPGs can be extremely social games, with high percentages of gamers making life-long friends and partners. It was concluded that virtual gaming may allow players to express themselves in ways they may not feel comfortable doing in real life because of their appearance, gender, sexuality, and/or age.

As gaming addicts form an important support group with each other and form intimate bonds, the damage is often done to marriages and real life relationships. Couples break up because the gaming addict neglects the relationship. Young people break up in high school or college. Married couples end in separation and divorce. Family stability is disrupted. The gaming addict stops interacting, stops participating, and stops feeling that these real-life relationships are as important. These once cherished family relationships and friendships only take time away from gaming friends. They only take time for being with the people that the gamer feels good about, creating the sense that real-life relationships are less fulfilling.

Gamers can join groups, guilds, lead battles, or win wars in a virtual fantasy world. A large part of gaming is about making social relationships. Gamers make friends with other gamers who help them learn the 'ropes' of playing the game (Kolo and Baur, 2004). Multi-user role-playing games often include interactive features and options such as chat rooms and places to virtually hangout with other gamers. The social aspect is a primary factor in many game addictions (Leung, 2007). Games often have trouble with social relationships and feel lonely as if they have never truly belonged. This feeling can be especially powerful among children and adolescents who haven't felt a sense of belonging in their real lives and often their only other friends are fellow gamers. Parents who try to put time limits on the game may find a child becomes angry, irrational, and even violent. Adolescents who can not access the game experience a loss. They want to be on the game and miss playing the game. This feeling can become so intense that they become irritable, anxious, or depressed when they are forced to go without it (Leung, 2004). As their feelings intensify, they stop thinking rationally and begin to act out towards others, especially a parent or anyone who threatens taking the game away.

It isn't only the gamers themselves who suffer from their addiction. In another story out of South Korea, a couple was arrested when their four-month-old daughter died of suffocation. The couple had left the infant alone in their apartment for several hours while they played World of Warcraft at a nearby Internet café (GameSpot, 2005). In a similar story, a couple from Reno, Nevada was so obsessed with video games that they left their babies starving and suffering other health problems. According to authorities, the children of Michael and Iana Straw—a 22-month-old boy and an 11-month-old girl—were severely malnourished and near death when doctors saw them after social workers took them to a hospital. Michael Straw, 25, and

Iana Straw, 23, pleaded guilty to child neglect and each faces a 12-year prison sentence.

According to the Associated Press (2007), authorities said the couple was too distracted by online video games, mainly the fantasy role-playing Dungeons & Dragons series, to give their children proper care. The report indicated that the children were malnourished because they were too busy playing video games. The report also indicated that hospital staff had to shave the head of the girl because her hair was matted with cat urine. The 10-pound girl also had a mouth infection, dry skin, and severe dehydration. Her brother had to be treated for starvation and an infection. His lack of muscle development caused him difficulty in walking. In an even more troubling twist to the story, Michael Straw was unemployed and his wife worked for a temporary staffing agency doing warehouse work, but when they received a \$50,000 inheritance they spent the money on computer equipment and a large plasma TV rather than on their children.

### Know the Warning Signs

It is important to be able to recognize symptoms of online gaming addiction and possible warning signs. The sooner one seeks help for an individual experiencing online gaming addiction, the more beneficial. Because online gaming is still relatively new, therapists may overlook signs of addiction. Symptoms may also be masked by realistic and practical use of the Internet for home or work. This can not only be difficult for the spouse or parent to understand, but it can be especially difficult for the treating practitioner to assess, who may be unfamiliar with online gaming. It is then helpful to first develop a common framework to evaluate the situation. Using the following warning signs as a guide, therapists will be able to make more informed choices and act to intervene more swiftly and successfully in new cases (Young, 2009).

### Preoccupation With Gaming

The addiction process begins with a preoccupation with gaming. Gamers will think about the game when offline and often fantasize about playing the game when they should be concentrating on other things. Instead of thinking about the paper that needs to be completed for school, or going to class, or studying at the library, the gamer becomes completely focused on playing the game. Gamers start to miss deadlines, neglect work or social activities as being online and playing the game becomes their main priority.

### Lying or Hiding Gaming Use

Some gamers spend days and nights online. They do not eat, sleep, or take a shower because of the game. They lie to family and friends about what they are really doing on the computer. Students tell their parents that they are doing their homework, spouses tell their family that they are using the computer for work, and friends will make up excuses for why they cannot go out—all to find more time to play the game.

### Loss of Interest in Other Activities

As the addiction progress grows, gamers become less interested in hobbies or activities that they used to enjoy and become more fascinated with living inside the game (Yee, 2006b). As one mother explained, "My son loved baseball and played Varsity on his high school team until he discovered X-Box Live. His grades plummeted after he discovered the game, but it wasn't until he quit the baseball team that I knew that something seriously wrong. He loved baseball too much. He won a baseball scholarship for college and dreamed about playing professionally. Now, nothing else matters to him except the game."

### Social Withdrawal

Some gamers experience personality changes the more addicted they become. A once outgoing and social husband or wife becomes withdrawn from their friends and family only to spend more time alone in front of the computer. A normally happy son or daughter becomes withdrawn only to prefer making friends in the game as the people that were once important in real life become less important. If the gamer does have real life friends, they are usually fellow gamers. In some cases, gamers are introverts and have problems making social connections in real life and turn to the game for companionship and acceptance.

### Defensiveness and Anger

Because of their addiction, gamers become defensive about their need to play the game and angry when forced to go without it. Spouses may argue with a husband or wife who tries to take away the computer. Parents who try to put time limits on the game describe how their sons and daughters become angry, irrational, and even violent. The addict becomes obsessed with the behavior. In the game, players spend a significant amount of time acquiring certain items that give them points and they can achieve a

celebrity-like status in the game with other players who are online too. The power and recognition create a drug-like "high" that is difficult to let go.

### Psychological Withdrawal

Gamers who cannot access the game experience a loss. They want to be on the game and they miss playing the game. This feeling can become so intense that they become irritable, anxious, or depressed when they are forced to go without the game. They can't concentrate on anything else except when they can go back online to play. Their minds become so fixated on the game that they can experience a psychological withdrawal from the game. Their feelings intensify and they stop thinking rationally and begin to act out towards other people in their lives. All that they can think about getting back to the game and they become angry and bitter at anyone who threatens taking it away.

### Using Gaming as an Escape

Gaming addicts use the online world as a psychological escape. The game becomes a safe means to cope with life's problems. It is a legal and inexpensive way to soothe troubling feelings and can quickly become a convenient way to instantly forget whatever stresses and pains they are experiencing. Like a drug addict or alcoholic who uses drugs or alcohol as a way to escape problems that they aren't able to deal with, gaming addicts use the game to avoid stressful situations and unpleasant feelings. They escape into the gratification of the game and the feelings they associated with playing it. Gamers who feel socially awkward, isolated, and insecure in real life can transform themselves into someone who feels socially confident, connected, and self-assured with others through the game. As the gamer progress deeper into the game, they feel more accomplished, more accepted, and better about themselves and through their characters gamers live out a fictional life that is more satisfying and interesting than their own.

### Continued Use Despite Its Consequences

Gamers often want to be the best at the game. In order to grow in the game, they need to play, especially in quest type of games, where there is a shared activity, they hunt together for items together and it can take several hours to complete one quest. Gamers who become hooked become obsessed with the need to be the best at the game. They want to feel powerful and recognized by other players and in order to do this they must spend time in the game. With that said, they continue to use the game despite consequences it may



be causing in their lives. Among adolescents, they may fail out of school, lose a scholarship, break up with girlfriend or boyfriend, and ignore their basic hygiene just to be online. Among adults, they may lose a job, lose a relationship or their marriage may be tittering on divorce, but they remain loyal to the game.

### Adolescent Issues

Adolescence alone, regardless of the involvement in the Internet, is an extremely challenging and complex transition for young individuals. Exploring and attempting to discover one's identity as an adolescent can be an overwhelming stage in one's life. In the event that an adolescent is using online gaming as an escape, it is more than likely that many more obstacles will be encountered and as a result a teen will struggle with unmanageable physical and emotional consequences (Kelly, 2004). Adolescents are a major target audience for gaming advertisers and appear to be the most at risk for developing an addiction to online games.

Peer pressure and environmental distresses are chief influences for an adolescent becoming involved with gaming. Friends are often gamers, and as discussed, family dynamics can play a role in the development of online gaming addiction. Furthermore, children of substance abusing parents are shown to have an increased risk of using gaming as means to cope with problems such as developmental issues, school problems, health problems, delinquency, sexual problems, mental issues, and family problems (Yen, Yen, Chen, Chen, & Ko, 2007).

It is much harder for a teen to recover from gaming addiction, especially when the computer is often a necessary component of their home and school environments. Effective treatment requires that the dynamics of the family should be assessed and that family members must also be helped to achieve health or relapse is much more likely (Yen et al., 2007).

For most adolescents, referral to treatment is involuntary and is usually mandated by parents, teachers, or the judicial system. When asked in Intake what the problem is, the most common answers are "Don't know" or "Somebody (such as a family member, teacher, or policeman) just overreacted." When pressed, most adolescents say they are doing nothing different from their peers or explain that they are not online as much as other friends who game.

Successful treatment must not only address the gaming behavior but help an adolescent navigate the normal developmental tasks of identity formation that are often neglected while using gaming as a means of coping with life's problems. Treatment should focus on effective problem solving and social skills necessary to build self-esteem. Many adolescent gamers lack a strong sense of self, using gaming as means to form their identities.

However, self-esteem in real life is fragile or non-existent. Treatment must focus on ways to build or rebuild their identities within a non-gaming environment. It is important to consider an adolescent's individual situation when treating their addiction. It is necessary to look at family dynamics such as family history of addiction, background, communication dynamics, or conflict and how these factors may be impacting a teen's developmental stages, emotional well-being, and esteem (Yen et al., 2007).

As part of intervening with an adolescent gamer, communication skills may also need to be learned. Many adolescent gamers cannot communicate well in face-to-face situations (Leo Sang-Min, 2007). This is part of why they game in the first place. Communicating online seems safer and easier for them. However, lack of communication skills can cause poor self-esteem, feelings of isolation and create additional problems in life among adolescents, so part of therapy needs to help adolescents communicate with others offline. Family therapists can apply several strategies to increase communication skills among adolescent clients suffering from gaming addiction. Enlisting the aid of an older child may help to engage an adolescent client in short conversations and to help develop skills. This may be a sibling or older friend. It is important to find someone the client feels comfortable with. Using books, magazines, and television to teach an adolescent client about facial expressions can also be helpful, especially to have them learn others' body language to help them understand what the other person is feeling. Role playing conversations is helpful to build their confidence. This helps an adolescent practice using eye contact when speaking to other people and develops listening skills, things they can't do online.

#### PARENTING EFFORTS

As the addiction develops, adolescent gaming addicts may experience symptoms of withdrawal, which include anxiety, depression, irritability, trembling hands, restlessness, and obsessive thinking or fantasizing about the Internet. While online they may feel uninhibited and experience an increased sense of intimacy. Relationships in the real world may be neglected as those in the virtual world increase in importance. Academic performance is also likely to suffer.

In a two-parent household, it is critical that both parents take the issue seriously and agree on common goals. Discuss the situation together and if necessary, parents must compromise on their desired goals so that when they approach their child, they will be coming from the same page. If parents do not, a child will appeal to the more skeptical parent and create division between them.

Parents often fall into an enabling role with a gaming-addicted adolescent. They cover up or make excuses for their children when they miss

school or fail to meet deadlines, and in the name of keeping peace they give in to their children's demands when they complain loudly. It is important for parents to learn effective intervention efforts that support but not enable addictive behavior.

### Set Limits on Play Time

Parents need to establish clear time limits with a child. How long they can play a game must be decided by the parent not the child. This is an important step. Often, adolescence is a time of experimentation with new freedoms such as going out with friends or learning to drive. Internet use is considered a normal part of growing up, which makes it even harder for parents to establish clear time limits. Even if a son or daughter argues that all their friends are online whenever and however much they like to be, as a parent, setting limits will help control playing time. Software is even available to help monitor and control their use.

### Rest Tired Eyes and Muscles

Between reality breaks, it is wise to have a child take a brief eye-focusing break every 20 minutes to prevent eyestrain. Have her look up from the game and focus on something in the distance for several seconds. While they are it, encourage her to get up and move around for a minute or two to relieve muscle tension. These posture breaks will also help remind a child there is a world beyond the video monitor.

### Push for Computer Games Instead

Encourage a son or daughter to switch over to playing educational-type games on computers. Even if hand-eye coordination is what he values most in video games, there are computer games that provide this and are more worthwhile than most of the video games such as "Concentration," "Jeopardy," and "Sesame Street" depending upon the age.

### Change the Power Source

Kids get a sense of power from playing and mastering video games, but there are many more positive ways to help give a child a sense of powerfulness. It is helpful for parents to look for interactive activities that give a child power through participation and learning, rather than through zapping little men or cars on a video screen. If a son excels athletically, he will get that kind

of empowerment through participation in his favorite sport. For a child who gets a lot of gratification from games, mastering a sport, a musical instrument, or challenging board game like chess can be very satisfying.

### Look for the School Connection

Is a child turning to online games because they are not doing well at school? It is hard to tell which came first: the bad grades or the game. Not performing well at school impacts a child's self-esteem. They may retreat more into the game to cope with negative feelings about themselves. Parents should get him a tutor to engage him more into school topics. This will do more for his self-esteem. The important thing is to attack the problem at its source instead of condoning substitute ways of dealing with the frustration.

### Family Therapy

For therapists, it is important to educate the entire family on ways that they can help the addict, whether or not he or she is in individual counseling or treatment. This may include counseling for family members, education on problem/compulsive gaming for the family, strategies on how to cope with anger and loss of trust from the addicted loved one, and education on the emotional costs of online gaming. Often, gaming addiction will be addressed as a part of a weekly family program. Each week topics related to addiction can be addressed to help family members understand the process of recovery, relapse triggers and the importance of keeping healthy boundaries. This is especially important for parents as they struggle to understand a child's compulsive need to game and the underlying dynamics associated with their addiction.

Brief Strategic Family Therapy (BSFT) is a short-term, problem-focused therapeutic intervention, targeting children and adolescents 6 to 17 years old, that improves youth behavior by eliminating or reducing drug use and its associated behavior problems and that changes the family members' behaviors that are linked to both risk and protective factors related to substance abuse. This model can also be applied to online gaming addiction among adolescents.

The therapeutic process uses techniques of:

- Joining—forming a therapeutic alliance with all family members
- Diagnosis—identifying interactional patterns that allow or encourage problematic youth behavior
- Restructuring—the process of changing the family interactions that are directly related to problem

### Joining

BSFT assumes that each family has its own unique characteristics and properties that emerge and are apparent only when family members interact. This family "system" influences all members of the family. Thus, the family must be viewed as a whole organism rather than merely as the composite sum of the individuals or groups that compose it (Minuchin, 1974). In BSFT, this view of the family system assumes the family is a system with interdependent/interrelated parts. The behavior of one family member can only be understood by examining the context (i.e., family) in which it occurs. Interventions must be implemented at the family level and must take into account the complex relationships within the family system.

Individuals from families that include youth with behavior problems are very difficult to engage in treatment, which may lead to family resistance and a lack of participation in treatment. Engagement or joining begins from the very first contact with the family. Resistance can be understood in the same way as any other pattern of family interaction (Minuchin, 1974). In BSFT, joining occurs at two levels. First, at the individual level, joining involves establishing a relationship with each participating family member. Second, at the level of the family, the therapist joins with the family system to create a new therapeutic system. Joining thus requires both sensitivity and an ability to respond to the unique characteristics of individuals and quickly discern the family's governing process. A number of specific techniques can be used to join the family, including maintenance (e.g., supporting the family's structure and entering the system by accepting their rules that regulate behavior), tracking (e.g., using what the family talks about (content) and how their interactions unfold (process) to enter the family system), and mimesis (e.g., matching the tempo, mood, and style of family member interactions).

### Diagnosis

In BSFT, diagnosis refers to identifying interactional patterns (structure) that allow or encourage problematic youth behavior. In other words, diagnosis determines how the nature and characteristics of family interactions (how family members behave with one another) contribute to the family's failure to meet its objective of eliminating youth problems. Addictive gaming behavior, especially among youth, may be a symptom of a dysfunction within a family. In this model, problematic behaviors serve a purpose for the family. Poor communication, aggressive parenting styles, a family's inability to operate productively, or symptomatic patterns handed down across generations may serve as a root cause of addictive gaming among adolescents.

Gamers immerse themselves into captivating virtual worlds that seem more exciting and interesting than their real lives. This often serves to

reinforce the addictive behavior and can be used as a coping mechanism to deal with missing or unfulfilled needs. In this way, gaming can allow the gamer to forget his or her problems. In the short term, gaming 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 the gaming addict, situations such as a death of a loved one, a divorce, or problems at school may trigger using the game as a mental distraction that temporarily makes such problems fade into the background. Since the escape is only temporary, players return to gaming as a means of making themselves feel better without dealing with and resolving the underlying problems in their lives.

In this way, the game produces a type of drug "high" that provides an emotional escape or an altered state of reality or mental rush (Ng & Wiemer-Hastings, 2005). That is, online gaming, the excitement of becoming someone new in a role-playing game, the challenge of winning a new weapon or potion, or the ability to make new friends through the game, provides an immediate mental escape from their problems and serves to reward future behavior.

Diagnosis not only investigates gaming behavior and its abstinence but it must assess the way the family functions and engages in treatment activities. Therapists should evaluate how the family externalizes problem behaviors, the level of pro-social activities the family engages in, family communication styles, and the overall level of family functioning. Patterns to look for are watching for signs that family members are critical about and negative toward the adolescent gaming addict. The addicted gamer may be using the virtual world to escape the pressure and stress from being seen as a failure to feel good about themselves in the game. Another family system pattern to examine is the level of denial or avoidance of family conflict. Does the family jump from conflict to conflict without achieving any real depth of one particular issue? This may be a symptom of poor conflict resolution among the family or diffusion of problems that are sustaining the addictive behavior. An adolescent may be compensating for family problems that are not being discussed openly at home. Fearing rejection, an adolescent may use the game as a safe place to share feelings and confront conflicts with other players. Other patterns in family therapy to observe are enmeshment, triangulation, or disengagement (Minuchin, 1974), which may be creating pressure on the adolescent to turn to the game as a means of escape.

### Restructuring

As therapists identify what a family's patterns of interaction are and how these fit with the adolescent's addictive behavior, therapists develop specific plans for changing the family interactions and individual and social factors

that are directly related to the child's behavior. The ultimate goal of treatment in BSFT is to change family interactions that maintain the problems to more effective and adaptive interactions that eliminate the problems. Adolescence is known to be a period of exploratory self-analysis and self-evaluation culminating in the establishment of a cohesive and integrative sense of self or identity. Adolescent gaming addicts can use the game to explore and test alternative ideas, beliefs, and behaviors, marking this period as one of both dramatic change and uncertainty. Restructuring means understand how the child may use the game to form identity (through personas and virtual worlds) and encourage healthy family interactions by working in the present, reframing, and working with boundaries and alliances.

Working in the present not only involves creating positive lifestyle changes that take clients away from the computer but that improve their emotional and family well-being (Young, 2007). This varies depending upon the client's family situation. Within BSFT, family enactments are a critical feature of working in the present. Enactments encourage, help, and/or allow family members to behave or interact as they would if the therapist were not present. Very frequently, family members will spontaneously behave in their typical way when they fight, interrupt, or criticize one another. Therefore, when families become rigidly focused on speaking to the therapist, the therapist should systematically redirect communication to encourage interactions between session participants. Encouraging enactments help the therapist observe problematic interactions directly rather than relying on stories about what happens when the therapist is not present. The family may blame the gamer for the problem, deny the problem, or triangulate the gamer into a marital problem—this root cause will vary among families. Enactment will enable the therapist to see clearly how these relationships have been maintained and give them the tools necessary to restructure the family system in a healthy manner.

Perhaps one of the most interesting, useful, subtle, and powerful techniques in BSFT is reframing (Minuchin & Fishman, 1981). Reframing creates a different sense of reality; it gives family members the opportunity to perceive their interactions or situation from a different perspective. Reframing is a restructuring technique that typically does not cause the therapist to lose his or her rapport with the family. For this reason, reframing should be used liberally in the treatment process, especially at the beginning of treatment when the therapist needs to bring about changes but is still in the process of building a working relationship with the family.

Adolescent gamers may be using the Internet and the game as a form of mental escape from stress and tension in the family. Poor family alliances or parent-child relationships may cause the adolescent to turn to the game as a safe place to vent about problems going on at home. The child may be the family scapegoat and suffer from poor relationships with others only to use the game as a safe place to make friends and socialize. Instead of turning

to the game, therapists must reframe an adolescent's negative distortions, enabling the family to develop new ways of communicating and relating without hostility, anger, or blame. The therapist must reframe situations of family tension so that the gamer doesn't see the game as the only safe place to express feelings. The family will learn new ways of communicating, allowing the adolescent gaming addict to share more openly and honestly with family members instead of online friends.

One major goal of therapy is to create the opportunity for the family to behave in constructive new ways. Working with alliances and boundaries the therapist is able to examine the social "walls" that exist around the family who are allied with one another and that stand between individuals and others that are not allied with one another. A common situation of a youth addicted to online games is a strong alliance with only one parent. This alliance may cross generational lines. For example, there may be a strong bond between a youth and her or his mother (or mother figure). Whenever the youth is punished by the father (or father figure) for inappropriate behavior, the youth may solicit sympathy and support from the "mother" to undermine the "father's" authority and remove the sanction. In a single-parent family, it may be the grandmother who overprotects the youth and undermines the parent's attempts at discipline.

Shifting boundaries to create equality in parenting involves creating a more solid bond between the parents so they will make executive decisions together. Removing the inappropriate parent-child alliance and replacing it with an appropriate alliance between either parents or parent figures will meet the youth's need for support and nurturance (decreasing their need to find it through the game). Understanding the alliances the youth has formed inside the game will also help the youth rely less upon the game for desired attention not being met in real life. Questions to ask the gamer may be: How much time do you spend customizing your character during character creation? How important is it to you that your character is unique or looks different from other characters? Does your character have many friends? Do you try out new roles and personalities with your characters? Do you enjoy making up stories and histories for your characters? Do you role-play with your character? What do you like about your character? The answers will reveal the virtual world the gamer has created including alliances, friendships, and quality of those relationships. Therapists can begin to merge the outside family system with the inside game support system, once an understanding the kind of alliances the gamer seeks.

Therapy involves a parallel form of intervention among adolescents. First, family dynamics, interactions, and communications impact addictive gaming behavior. Second, the virtual world inside the game impacts addictive gaming behavior. If the game provides a more appealing, exciting, and supportive environment than does the family, the adolescent will continue to gravitate to the game to meet unmet needs. Once the family system can

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be realigned to provide these needs, the game becomes less important and more irresistible, allowing the gamer to form his or her identity within the context of a normal childhood development scheme.

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