Reinforcing Healthy, Positive Change
Effective Strategies for Recovering Adolescents

Lost in Cyberspace
New Protocols for Treating Online Game Addiction

The Cannabis Check-Up
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Addiction and Trauma
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Integrating Recovery Services for Young People
For most of us, the computer and Internet have become essential tools of our everyday lives and it is hard to imagine working, studying or even planning our days without these valuable and necessary aids. For many young people, spending time on the computer often means playing online video games. Over 90 percent of American young adults do it, and the popularity of online gaming has lately spawned what some behavioral health researchers now point to as video game addiction—a disorder that is most vividly expressed in games known as massively multiplayer online role-playing games (MMORPGs). Despite mounting media coverage that links video games with addictive behavior, mental health professionals cannot fully explain why some online gamers spend ruinous amounts of time in play. MMORPGs are a rapidly growing genre of Internet-linked computer role-playing games in which a large number of players interact with one another by avatar proxy in a complex cyber-fantasy world. In their present form MMORPGs have been around since the early 1990s, and today the most well known of the genre, World of Warcraft®, is played by over 11 million paid subscribers. World of Warcraft® and other MMORPGs are known for a complex and artfully designed online digital environment, capable of supporting thousands of players at a time. These so-called persistent environments are created and maintained by the games’ proprietors, and share the features of a common theme, some form of stage or skill
progression, the assumption of a character (the avatar) whose abilities, strengths and role may be customized and enhanced over time, and often complex social interaction within the game that leads to the development of an in-game culture. Players are encouraged to communicate with each other through text messages and the animated gestures of their avatars, and in fact, must relate to other gamers to play effectively and maintain acceptable progress in achieving individual and communal in-game goals. Players further maximize goal attainment by forming cooperative and independent alliances designed to optimize the development of their individual characters and the collective skill set of the alliance.

MMORPGs appear to be engineered to induce gaming and maximize the amount of time the player stays in play. Game architecture relies on highly reinforcing random reward patterns based on the well-known principles of operant conditioning (Yee, 2006). The time between effort and reward is designed to be very short at first, becoming longer only after the player has progressed to successively higher levels within the game. The reinforcing nature of game structure is significant since children and adolescents often become seriously involved in gaming at an age marked by high neuroplasticity and at a time before their brains have fully developed the ability to manage impulses (MSNBC, 2009).

Data from recent research paint a disturbing picture. One study found that 50 percent of respondents preferred playing a video game over spending time with real-life friends. In the same study, 35 percent of surveyed gamers reported that, compared to real-world interactions, it was easier for them to talk to others over the Internet in the context of game sessions. Among video gamers, MMORPG players are more likely to spend what they themselves consider to be excessive time in play than non-MMORPG video game players (Ng, 2005).Gamers in a 2006 study reported an average of 22.72 hours per week engaged in MMORPG play, and eight percent of these respondents reported spending in excess of 40 hours per week in play (Yee, 2006). The American Medical Association estimates that more than five million kids may be addicted to online gaming (MSNBC, 2009); and even these figures may understate the problem since, because there are as yet no official diagnostic criteria for video game addiction, most problematic gamers present in a clinical setting for treatment only of comorbid conditions associated with their gaming.

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Sign and symptoms

According to the website Video Game Addiction (2009) psychological symptoms of video game addiction include:

- Having a sense of well-being or euphoria while at the computer
- Inability to stop the activity
- Craving more and more time at the computer
- Neglect of family and friends
- Feeling empty, depressed or irritable when not on the computer
- Lying to employers and family about activities
- Problems with school or job

Physical symptoms of video game addiction may include:

- Carpal tunnel syndrome
- Dry eyes
- Migraine headaches
- Back aches
- Eating irregularities, such as skipping meals
- Failure to attend to personal hygiene
- Sleep disturbances, changes in sleep pattern

Autistic spectrum disorders—all conditions in which the affected person tends to experience real-life social interaction as difficult and stressful (Charlton, 2008).

**Social and clinical issues**

MMORPG enthusiasts report that they play for a variety of reasons, including: simple entertainment; gaining a sense of community; feeling of achievement; and as a way of regulating their emotions (Christie, 2009). Players report enjoying the progression/advancement features of MMORPGs, and find the process of becoming more skilled and better able to master increasingly difficult in-game tasks to be a powerfully rewarding experience (Yee, 2006). Male gamers tend to find greater satisfaction in how their avatars compete with other in-game characters. Males also seem to be more aggressive and domineering in their play, while female gamers appear to place higher value on the quality of in-game relationships and a sense of immersion in the game. These differing styles of play may endorse the findings of neurobiological research that show distinct gender differences in the way test subjects' dopaminergic circuitry were activated while they were in play (Koepp, et al., 1998).

Cyber gamers also appear to take the environment of the game very seriously. For some players, relationships in the cyber world become more meaningful and resonant than those of the real world. A cyber environment in which gamers can feel important, competent and powerful may have strong appeal for adole-
cents whose tentative self-concept and shaky sense of self-worth make real-life social interactions stressful and potentially risky. Adolescent and young adult gamers who have experienced social marginalization in the real world may find great appeal in an escape to a game environment that is dramatic, empowering and one in which other players value them as competent and reliable allies (Yee, 2006).

Addiction potential

The argument that MMORPG play can be addictive is beginning to gain traction within the behavioral health community. It's hard to ignore Yee's (2006) findings that imply both tolerance and withdrawal symptomology associated with heavy, long duration video gaming. Fifty percent of respondents in Yee's study considered themselves addicted to MMORPG play. In the same study, 15 percent of respondents reported what might be construed as psychological symptoms of withdrawal, feeling angry and irritated when they were unable to play. Thirty percent of those studied also reported that they had continued to play video games even after reaching a point where they had stopped enjoying the experience. Yee also found a significant positive correlation between affirmative responses to questions regarding tolerance and withdrawal and the average weekly time spent in play. As with other process addictions, the addicted gamer seems to become dependent on his or her own neurobiological reaction to being in play.

The neurobiology of video gaming appears to center on dopaminergic systems and activity, in a way similar to pathological gambling. The MMORPG game environment is designed to be filled with challenges that deliver powerfully articulated rewards, and seems to be engineered specifically to get players' dopaminergic pathways (pathways that mediate interest, focus and reward) activated and resonating. Human beings have evolved physiologically to be drawn to such an environment—even if that environment exists only in cyberspace. In subjects involved in video game play, Koepp and colleagues (1998) found a dramatic increase in dopamine activity (an increase comparable to that observed in a subject intravenously injected with amphetamine) in areas of the brain thought to be involved in reward and learning.

Treatment and recovery

Effective treatment of MMORPG and other video game addictions should begin with thorough psychiatric and bio-psychosocial assessments designed to identify possible medical, psychological, developmental and social co-factors that may have influence on the addicted person's gaming activity. Establishing a safe, durable and trusting therapeutic alliance is also an important precursor for helping the online gaming addict appreciate the level of impulsivity of his/her gaming activity and the need for an ongoing and proactive recovery effort. Once the therapeutic alliance has been set, the therapist can help the gaming patient gain a greater awareness of the behavioral, affective, cognitive, situational and temporal triggers to gaming binges.
This awareness can be valuable in aiding the patient to develop more adaptive ways to manage triggering thoughts, feelings and behaviors. The gaming patient and therapist should work together to identify difficult feelings the gamer may experience when off-line and particular computer applications, such as chat rooms or other interactive activities that may act as triggers to problematic computer or online gaming (Young, 1999). In cases where social anxiety is supporting the gaming addiction, the treating clinician may want to focus some time on helping the gamer to develop more adaptive mood intervention and especially anxiety management skills. Some clinicians have encouraged socially anxious video game addicts to engage in face-to-face role-playing card games that can eventually lead to post-game social activities like pizza parties or group outings. In cases like these, mind-body therapies and Cognitive Behavioral Therapy may also be useful (Christic, 2009). Gamers, isolated and entrenched in excessive hours of game play may be resistant to the idea of getting help, especially social aspects of treatment like group therapy. Those gamers who suffer from severe anxiety or depression, or who have little social support or willingness to stop gaming, may need residential care. This would also be the indicated level of care for gamers who are contemplating suicide.

Recovery from an online gaming addiction is similar to that of substance addictions with one important proviso: Computers have become such a necessary part of our daily lives, that gaming addicts cannot reasonably be expected to be totally abstinent from using a computer or going online.

“It’s like a food addiction,” says Dr. Kimberly Young, clinical director of the Center for On-Line Addiction. “You have to learn to live with food.” However, the idea that addicted gamers shouldn’t be expected to eschew all computer use does not mean that they can’t achieve abstinence from online gaming. In the treatment of the online gaming addict, some session time might also be devoted to helping the patient to cultivate the willingness and social skills necessary for a rich and effective engagement in On-Line Gamers Anonymous (OLGA). OLGA is a fellowship based on the familiar 12 Steps of Alcoholics Anonymous (AA) where gaming addicts can meet to share their experiences, strength and hope to further their individual and
collective recovery from online gaming addiction. Participants often choose a sponsor—another recovering gaming addict with more experience in recovery—who can act as an advisor and confidant, and help the newly recovering gamer work the 12 Steps of OLGA. Sadly, face-to-face meetings of OLGA are currently few, but there are regular online meetings and ongoing OLGA chat rooms. Online interactive OLGA meetings and chat rooms may prove to be something of a double-edged sword, having the dual potential of providing needed social and recovery support but at the risk of triggering, in patients with insufficient recovery stability or affect management skills, destructive computer-related behavior. Some recovering online gaming addicts also attend open AA or All Addictions meetings where they get real-world social support—even if not from other gaming addicts.

Protocols for the treatment of online gaming addiction have not yet been well codified, so clinicians might be well advised to be intuitive, creative and, above all, listen to what patients say works for them. The treatment of MMORPG addiction can be a long process, typically with setbacks along the way. Patience, understanding and persistence are invaluable.

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References


