Article 65

Working With Gamers: Implications for Counselors

Gerra W. Perkins, Kristy A. Brumfield, E. Noel Collins, and Nicky T. Morris

Perkins, Gerra W., is an Assistant Professor at Northwestern State University in Natchitoches, Louisiana. Dr. Perkins is a former school counselor and continues to be interested in issues related to children and adolescents.

Brumfield, Kristy A., is an Assistant Professor at Xavier University of Louisiana in New Orleans. Dr. Brumfield has worked as a counselor in New Orleans for over eight years. Her research interests include counseling children and adolescents, play therapy, and multicultural issues.

Collins, E. Noel, is a graduate assistant at Northwestern State University. She is a second year school counseling graduate student. Noel is currently completing her counseling training in both the elementary and junior high school settings.

Morris, Nicky T., is a Graduate Assistant at Northwestern State University in Louisiana. Nicky is currently working towards her Master's in Student Personnel Services Counseling.

Introduction

The words *video gaming* have the ability to evoke a myriad of feelings and thoughts, many of which are often contradictory. To some video gaming is simply an entertaining pastime that is part of life. To others video gaming seems to be life itself; an alternative reality that is more comfortable, predictable, and enjoyable than actual reality. The common denominator, regardless of the viewpoint, is that video gaming is indeed an accepted part of modern life.

Throughout history each technological advance has given rise to public concern as to how younger generations will be impacted and influenced by the new technology (Sherry, 2001; Wartella & Reeves, 1985). The evolution of video gaming and the everchanging technology used in video games are no exception to this concern. Many early video games were seen as harmless (Anderson & Dill, 2000) and were simple in their design and plot. *Pong*, a video game version of ping pong, was introduced by Atari in the 1970s. With the 1980s came the popularity of the arcade-style games such as *Pac-Man*. Though *Pac-Man* was far from violent by today's standards, there was some concern at the time as to the game's appropriateness for young people since it involved the "chomping" of ghosts and goblins (Anderson & Dill, 2000). Video games in the 1990's changed dramatically and introduced many of the stereotypical violent video games which continue to be popular in the market today. *Mortal Kombat*, a game in which the

player attempts to kill all opponents, was the most popular video game in 1993 (Elmer-Dewitt, 1993). In addition to concerns raised about the violent nature of the game, there were also concerns about the realistic nature of the human characters featured in the battle.

Other violent video games came to the forefront of American consciousness in the 1990s as well. One such game was *Doom*. On April 20, 1999, Eric Harris and Dylan Klebold murdered 13 students and wounded 23 students at Columbine High School in Littleton, Colorado. It was later found that both Harris and Klebold enjoyed playing *Doom*, a game used to train soldiers in the U.S. military to kill opponents. In fact, Harris had customized a version of Doom in which two shooters attacked other people who were unable to fight back (Anderson & Dill, 2000). Since that time other acts of violence have occurred on school and university campuses in which it was believed that the shooter played violent video games (e.g., Paduchah, Kentucky and Virginia Tech University). However it is impossible to establish a clear, causal link between the violence and the gaming.

It is important to note that not all video games are violent, and there are many games that are both age-appropriate and content-appropriate. The purpose of this article is to provide counselor educators, school counselors, and other practicing counselors with an objective look at video gaming. The potential benefits and detriments will be explained. Also, the idea of gaming as an "addiction" will be discussed. The types of video games will be described and the reasons people play will be examined. Finally, implications for counselors will be addressed.

Definitions

The following definitions will be used for the purposes of this article:

Video game. A video game is an electronic game played by means of images on a video screen which often emphasize swift action (Merriam-Webster Online Dictionary, 2009). Video games can include console, computer, arcade, and cell phone games.

Gamer. Gamer, in the video gaming context, is defined as a person who continuously plays video games (Merriam-Webster Online Dictionary, 2009).

MMORPG. MMORPG is an abbreviation for a massive multiplayer online role-playing game (Merriam-Webster Online Dictionary, 2009).

Potential Effects of Gaming

The potential for both positive and negative effects exists in video game play. These effects can manifest themselves in physical, behavioral, and/or psychosocial ways.

Potential Negative Effects of Gaming

Studies have been conducted which isolate video games as a stimulant for epileptic seizures (Chuang, 2006; Porciatti, Bonanni, Fiorentini, & Guerrini, 2000). Even gamers without a prior history of seizures are susceptible to seizures when playing video

games. The prevalence of musculoskeletal disorders in gamers is another example of a negative physical effect of excessive video gaming. The posture that is assumed when sitting in front of the television or computer has been shown to cause increased musculoskeletal pain (Zapata, Moraes, Leone, Doria-Filho, & Silva, 2006).

In addition to the physical effects of excessive gaming, some gamers exhibit increased negative behaviors. Video games that demonstrate violent behavior have been shown to cause an increase in aggression (Anderson & Bushman, 2001). Role modeling of aggression, increasing arousal, and stimulating an aggressive affective state are all ways in which a gamer can be effected by the violence demonstrated on the screen.

When examining social behaviors, video games create both positive and negative responses. A decrease is seen in prosocial behavior of gamers when socializing with other people face to face, but an increase is seen in prosocial behavior of gamers when socializing with other gamers in an online environment (Anderson & Bushman, 2001; Wang & Wang, 2008). Excessive gaming can also lead to unfavorable psychosocial effects (Ng & Wiemer-Hastings, 2005). Video games fulfill certain needs for gamers, and this need fulfillment can lead to overuse of video games, which can in turn lead to dependence or craving.

Potential Benefits of Gaming

Along with the many potential detriments that have been described, there also exist many benefits to video gaming. Video gaming programs can be effectively used for training purposes for specialized jobs that require extensive training. For example, soldiers and surgeons can use video games to help create real life situations to improve skills. An experiment conducted by Rosser (2007) demonstrated that laparoscopic surgeons who played video games for three or more hours a week performed better and faster than colleagues who did not play video games. Surgeons with a history of gaming also had better scores on a skills test than surgeons who did not have a gaming history. The Army was one of the first organizations to use video games for training purposes. *America's Army* and *Every Soldier a Sensor Simulation* (Mednoza, 2008; Kushner, 2006) are examples of two programs that are used to help prepare soldiers for battle. The programs teach soldiers about what to expect when entering the field while instilling the Army's core values. The Army also uses another type of video game, *Virtual Iraq*, as a therapeutic tool to help soldiers deal with Post Traumatic Stress Disorder (Halpern, 2008).

Linked to training, educational use of video games is another potential benefit. Using video games to teach children or adults a specific skill set is a modern twist on education and can have favorable outcomes (Thomas, 2006). Games are designed to be used by the educator or the student, and, in some cases, there is the opportunity for dual usage.

In addition to training and educational benefits, video games have also been reported to increase motor skills (Papastergiou, 2009), and skills learned from playing a video game are often transferrable to the real life application of that game.

With the development of the *Wii* gaming console and games like *Dance Dance Revolution*, video games are also being used as a form of physical activity (Gallaway & Lauson, 2006; Wadsley, 2009). The *Wii* allows gamers to use the game controller as a piece of sports equipment and interact in physical activities (e.g., bowling, tennis,

baseball, boxing, etc.). Physical therapists have begun to incorporate *Wii* games into patient routines and some doctors have recently begun prescribing *Wii* activities for patients who suffer with Parkinson's Disease. Another example of a video game with physical benefits is *Dance Dance Revolution*, a game that involves jumping around on a mat of patterned arrows. The jumping motions required for game play is comparable to other aerobic exercises.

Many of the benefits of video games that have been discussed can be attributed to the fact that the program designer created the game for a specific purpose. It is important to note, however, that most video games are intended solely for entertainment purposes.

Gaming as an Addiction

Gaming may have many addictive qualities, but is gaming an addiction? The answer, according to the *Diagnostic Statistical Manual of Mental Disorders* (DSM) IV-TR, is no (American Psychiatric Association, 2007). However, this does not mean that gaming is non-addictive or that the DSM-IV might not include gaming as an addiction at some point in the future.

Since video game addiction is not yet a formal classification, then video game overuse would seem to be the most appropriate term for use. Video game overuse is an important issue in today's society because those who play in excess vary in age. The typical age and gender for overuse used to be 30 and older males, but the average age for those who overuse video games is decreasing. Currently the 15 to 25 year old age group is showing significant expansion in the gaming market, and, according to the Entertainment Software Association, 35% of gamers are under the age of 18. Video game overuse does not formally qualify as an addiction, however, up to 15% of United States video game players are affected by video game overuse (AMA, 2007). Additionally, the reason for age variation in video gaming overuse may be attributable to the fact that gamers are more likely to overuse video games if they start playing these games at younger ages. Since the introduction of video games in the 1970s, games have become more interactive and now appeal to a wider variety of people (AMA, 2007).

Video game overuse has similarities with gambling addiction (AMA, 2007). Gamers can often experience highs that are comparable to drug-like highs (Young, 2009). The feelings that gamers experience from gaming overuse can contribute to their inability or difficulty in halting their game use. Gamers may crave more game time, experience mood modifications, and even increase their game playing activities (Hsu, Wen, & Wu, 2009; Young, 2009).

Overuse of video games can manifest itself through other ways, such as withdrawal from everyday life, seclusion, insomnia, and in the most extreme cases, seizures (Hsu et al., 2009). Overuse can often stem from real-life factors such as stress, low self-esteem, and multiple life problems which the individual believes he or she needs to escape. MMORPGs are the fastest growing gaming activity and can give the gamer the satisfaction of achievement and the illusion of closeness or relationships, among other factors that he or she believes to be missing from his or her real life. MMORPGs are some of the most overused video games, and gamers of this variety represent almost 10% of the gaming population (AMA, 2007; Young, 2009).

MMORPG vs. Other Gaming

Early video games were one dimensional and involved simple, repetitive tasks (e.g., Pong). However, over the years video games have become increasingly complex. Characters have become more detailed, tasks have become harder, and players are required to put more energy into defeating the games. The progression of video games has lead to the creation of a dynamic type of gaming that is growing faster than any form of electronic games (Chuang, 2006; Smyth, 2007). Massively Multiplayer Online Role-Playing Games (MMORPGs) are different from other types of video games such as arcade, console, and solo play game. MMORPRGs are more complex and require more player commitment. These types of games often involve several players competing against each other at once. MMORPGs include a detailed virtual reality world in which a player can be represented by an avatar. Avatars talk and move around in the virtual world just as the player would, whereas in other games, characters may be limited in movement and behavior. MMORPGs can range from war activities (e.g., World of Warcraft) to building communities (Chuang, 2006). The virtual worlds created by the MMORPG developers are often three dimensional and come in great detail. Players have the option of adding specific details to enhance and personalize the experience. MMORPGs require collaboration with other players in order to advance into higher levels, whereas other types of video games can be completed in a solo environment (Ng & Wiemer-Hasting, 2005). Another distinguishing characteristic of MMORPGs is the ever changing advancement and level requirements. While the object of many video games is to defeat all of the levels, the goal for MMORPGs is different; MMORPGs are often endless. Players progress by meeting level goals, collecting points, and gathering objects. Players have the option of joining other "clans" or "guilds" to increase game MMORPGs require commitment and a high level of involvement to complexity. progress through the levels.

It is reasonable to suggest that MMORPGs are setting a new standard in the video gaming world. One such game that has garnered much attention and has set its own standard is *World of Warcraft (WoW)*, the world's most subscribed to MMORPG (Guinness World Records, 2009). Players are required to pay for subscriptions by credit or debit cards or through buying game cards with a specified amount of playing time. In December of 2008, *World of Warcraft* had over 11.5 million monthly subscribers (Glenday, 2009). Like other MMORPG games, players of *WoW* direct a character avatar which interacts with other players' avatars. The avatars fight monsters, complete missions and quests, and explore the landscape of the game (the fictional world of Azeroth).

Playing MMORPGs has been shown to have more influence as compared other video games (Smyth, 2007). The gaming experience of players of MMORPGs differs in many ways when compared to players of other types of video games (computer, arcade, solo play, etc.). Typically MMORPG gamers have a greater enjoyment in playing, a greater interest in continuing to play, and a greater acquisition of new online friendships (Smyth, 2007). However, MMORPG gamers also saw greater interference in "real life" activities such as academic work and socializing. In general, MMORPG gamers spent more hours playing, reported worse health, and worse sleep quality when compared with their traditional gaming counterparts (Smyth, 2007).

Why Play Videogames?

The importance of play in the lives of children is far from a novel concept; Plato is quoted saying, "It is the essential nature of man to play." That essence has more recently been equated with work and love (Elkind, 2008) regarding its necessity for our existence and as such, it is thought to come as naturally to us as breathing. Despite cultural variance in the ways we play (Drewes, 2005), it can be asserted that play is universal. The question for many counselors working with children, adolescents and families then becomes what kind of "play" should be encouraged and what types of play might be inappropriate or harmful. According to Brumfield (2006), most parents identified play primarily as a type of communication and as a method of "release," or a way for children to expend physical and emotional energy. Parents in this study reflected on how children learn through play and how play changes as children progress through developmental stages. Many not only encouraged play for their own children, but made valiant attempts to incorporate play into their adult lives as well. Parents identified play as an activity that is not only essential to healthy human development, but as something that is transient (i.e., changes with growth and development) and ideally perpetual (i.e., lasts throughout the lifespan). This finding is consistent with Timberlake and Cutler's (2001) assertion that play is fundamental for the healthy development of children. Again, Plato's sentiments are echoed as Timberlake and Cutler continue to say it really is not only desirable, but also a basic necessity. All of the parents viewed play as positive and many were reflective of the changes that had occurred during the passing of time between generations.

Just as work and relationships (love) have changed overtime so has play (Cross, 2008). It is important for us to examine the why of video gaming play through a temporal cultural lens as we continue to learn more about the emerging culture of the digital age. From the time the first videogame, Tennis for Two, was introduced in 1958 and the home version of Atari's PONG was released in 1975 play has changed dramatically. Children are much less likely in the past to partake in outdoor playtime (Singer, Singer, D'Agostino, & DeLong, 2009) and are more likely to instead choose sedentary activities using "New Media" (Roberts, Foehr, & Rideout, 2005) such as television, computers, and videogames. It is possible that young people in America are spending more than six hours a day exposed to various media input. One study (Roberts & Foehr, 2008) indicated that children 8 – 18 years old spend more than 3 hours per day watching television, over an hour watching videos and movies, a little over one hour playing video games and just over 30 minutes on the computer. These numbers do not account for the increasing use of cell phones, iPods, and portable gaming systems (i.e., PSP and GameBoy games). In the last two decades, the videogame industry has experienced a financial boom making it competitive in the market with the film and music industries (Malliet, 2006). During this time, the face of gaming has expanded from male teenagers to something that affects the lives of most families in Europe, North America, and Asia.

There is still a great deal of dispute regarding the positives and negatives of electronic media, particularly video gaming (Kutner & Olson, 2008; Young, 2009). Games are used in schools and at home to teach educational concepts, social skills, coping with medical conditions (Harvard Health Letter, 2009) and even safety procedures (Bloom, 2009). Singer et al. (2009) remind us that when used in moderation and wisely

selected, electronic games can enrich creativity, promote educational readiness, and foster the development of language in addition to stimulating imagination and playfulness. Success at gaming can be empowering to young people (Brown, 2009) as they are challenged and engaged in striving to improve skills. Success is a quickly rewarded possibility and failure is easily reversed. When game play is monitored by parents and other types of play are available, video games may even have a positive effect on brain development. Brown and others (Griffiths, 2008) also present what can be referred to as the "dark side" of play noting the isolation from human interaction, the lack of time spent in nature, the reduced socialization and the sedentary nature of video games that may lead to numerous physical and mental health issues. Video game addiction has not yet been recognized by the American Psychiatric Association in the Diagnostic and Statistical Manual of Mental Disorders (DSM) but treatment facilities have opened in the United States and other countries to treat children and adults who play video and computer games compulsively (Brown, 2009). There is also a relatively recent emergence of online Gamers Anonymous 12 step programs (Harvard Health Letter, 2009). The symptoms of this compulsive play and its withdrawal have been compared to opiate addition. According to Brown "In South Korea, which has been described as the world's most intense gaming culture, one-eighth of the population between the ages of nine and thirty-nine either is addicted to these games or has a compulsion that borders on addiction" (p. 177). He also reports that at least ten South Korean gamers died in 2005 from blood clotting that may have resulted from sedentary game play.

Additional concerns that counselors and parents alike may have regarding video game play are the exposure to violent acts, mature themes (Kutner & Olsen, 2008) and profane language (Ivory, Williams, Martins, & Consalvo, 2009). The literature on the long terms effects of these things, as with the exposure that comes from television or movies, is inconsistent and unclear.

Implications for Counselors

Most counselors, at some point in their practice, will work with clients who play video games. When possible, and when appropriate, counselors can recognize clients' use of video games and incorporate gaming ideology into therapy (Bradley, Hendricks, & Crews, 2009; Gardner, 2002; Griffiths, 1997; Skigen, 2008) as a way to make cross-cultural connections. Clients can be encouraged to use this safer alternative to expressing anger as a way to test limits and rebel that may have fewer social consequences, and counselors can ask questions to help clients distinguish between the real world and the virtual experience. It is also important for counselors to understand the types of video games that are on the market (i.e., MMORPG, solo play, etc.) and be able to recognize when video game overuse is an issue. Lastly, counselors who work with children can educate parents about video gaming. The Harvard Health Letter (2009) offers the following suggestions: consider developmental appropriateness of games, utilize the ratings system, take advantage of control settings, keep consoles in family areas, and offer children alternatives to time playing video games.

This article has attempted to provide counselor educators, school counselors, and other practicing counselors with an objective and balanced view of video gaming. There are both potential benefits and detriments in video game use, and there are a number of

reasons that people play. While excessive game use is not technically classified as an addiction at this time, understanding the needs that the gaming fulfills as well as the symptoms of video game overuse continues to be important.

References

- American Psychiatric Association. (2000). *Diagnostic and statistical manual of mental disorders* (4th ed., text revision). Washington, DC: Author
- Anderson, C., & Bushman, B. (2001). Effects of violent video games on aggressive behavior, aggressive cognition, aggressive affect, physiological arousal, and prosocial behavior: A meta-analytic review of the scientific literature. *Psychological Science: A Journal of the American Psychological Society / APS*, 12(5), 353-359.
- Anderson, C. A., & Dill, K. E. (2000). Video games and aggressive thoughts, feelings, and behavior in the laboratory and in life. *Journal of Personality and Social Psychology*, 78(4), 772-790.
- Bloom, S. (2009). Game-based learning: Using video game design for safety training. *Professional Safety*, pp. 18 21.
- Bradley, L. J., Hendricks, C. B., & Crews, C. R. (2009). Expressive techniques: Counseling interventions for children and adolescents. In A. Vernon (Ed.), Counseling children and adolescents (4th ed., pp. 83 122). Denver, CO: Love.
- Brown, S. (2009). *Play: How it shapes the brain, opens the imagination, and invigorates the soul*. New York: Avery.
- Brumfield, K. A. (2006). African American parents' perceptions of play, counseling, and play therapy. Doctoral dissertation, University of New Orleans, New Orleans, LA, ProQuest Digital Dissertations database. (Publication No. AAT 3235045).
- Chuang, Y. (2006). Massively multiplayer online role-playing game-induced seizures: A neglected health problem in internet addiction. *Cyberpsychology & Behavior: The Impact of the Internet, Multimedia and Virtual Reality On Behavior And Society*, 9(4), 451-456.
- Cross, G. (2008). Play in America from pilgrims and patriots to kid jocks and joystick jockeys: Or how play mirrors social change. *American Journal of Play*, 1(1), 7-46.
- Drewes, A. A. (2005). Play in selected cultures: Diversity and universality. In E. Gil, & A. A. Drewes (Eds.), *Cultural issues in play therapy* (pp. 26-71). New York: Guilford.
- Elkind, D. (2008). The power of play: Learning what comes naturally. *American Journal of Play*, *I*(1), 1-6.
- Elmer-Dewitt, P. (1993, September 27). The amazing video game boom. *Time*, 66-73.
- Gallaway, B., & Lauson, A. (2006). I can't dance without arrows: Getting active at your library with video game programs. *Young Adult Library Services*, 4(4), 20-25.
- Gamer. (2009). In Merriam-Webster Online Dictionary. Retrieved from http://www.merriam-webster.com/dictionary/gamer
- Gardner, J. (2002). Nintendo games. In C. E. Schaefer, & C. M. Cangelosi (Eds.), *Play therapy techniques* (2nd ed., pp. 357 364). Lanham, MD: Aronson.
- Glenday, C. (Ed.). (2009). Guinness World Records 2009. Random House: New York.

- Griffiths, M. (1997). Video games and clinical practice: Issues, uses and treatments. British Journal of Clinical Psychology, 36, 639 – 641.
- Griffiths, M. D. (2008). Videogame addiction: Further thoughts and observations. *International Journal of Mental Health and Addiction*, 6, 182 185.
- Guinness World Records. (2009). In Guinness World Records Online. Retrieved from http://gamers.guinnessworldrecords.com/records/pc_gaming.aspx
- Halpern, S. (2008). Virtual Iraq. New Yorker, 84(14), 32-37.
- Harvard Health Letter. (October, 2009). Game on: Violent and possibly addictive, video games have become a major part of American childhood. What should parents do? *34*(12), 4-5.
- Hsu, S., Wen, M., & Wu, M. (2009). Exploring user experiences as predictors of MMORPG addiction. *Computers & Education*, 53(3), 990-999.
- Ivory, J. D., Williams, D., Martins, N., & Consalvo, M. (2009). Good clean fun? A content analysis of profanity in video games and its prevalence across game systems and ratings. *CyberPsychology & Behavior*, 12 (4), 457 460.
- Kushner, D. (2006). War games. Technology Review, 109(3), 19.
- Kutner, L., & Olson, C. K. (2008). *Grand theft childhood: The surprising truth about violent video games and what parents can do.* New York: Simon & Schuster.
- Malliet, S. (2006). An exploration of adolescents' perceptions of videogame realism. *Learning, Media, and Technology, 31*(4), 377 394.
- Mednoza, O. (2008). Training soldiers with "Americas Army." Soldiers, 63(9), 15.
- MMORPG. (2009). In *Merriam-Webster Online Dictionary*. Retrieved from http://www.merriam-webster.com/dictionary/MMORPG
- Ng, B., & Wiemer-Hastings, P. (2005). Addiction to the internet and online gaming. Cyberpsychology & Behavior: The Impact of the Internet, Multimedia and Virtual Reality on Behavior and Society, 8(2), 110-113.
- Papastergiou, M. (2009). Exploring the potential of computer and video games for health and physical education: A literature review. *Computers & Education*, 53(3), 603-622.
- Porciatti, V., Bonanni, P., Fiorentini, A., & Guerrini, R. (2000). Lack of cortical contrast gain control in human photosensitive epilepsy. *Nature Neuroscience*, *3*(3), 259-263.
- Roberts, D. F., & Foehr, U. G. (2008). Trends in media use. The *Future of Children*, 18(1), 11-37.
- Roberts, D. F., Foehr, U. G., & Rideout, V. (2005). Generation M: Media in the lives of 8 18 year olds. A Kaiser Family Foundation Study. Retrieved from http://www.kff.org/entmedia/loader.cfm?url=/commonspot/security/getfile.cfm& PageID=51809.
- Rosser, J. (2007). The impact of video games on training surgeons in the 21st century. *Archives of Surgery*, 142(2), pg. 181-186.
- Sherry, J. L. (2001). The effects of violent video games on aggression: A meta-analysis. *Human Communication Research*, 27(3), 409-431.
- Singer, D. G., Singer, J. L., D'Agostino, H., & DeLong, R. (2009). Children's pastimes and play in sixteen nations: Is free-play declining? *American Journal of Play*, *1*(3), 283 312.

- Skigen, D. (2008). From sand to screen: Taking the sand tray high tech. *Play Therapy*, 3(2), 18-20.
- Smyth, J. M. (2007). Beyond self-selection in video game play: An experimental examination of the consequences of massively multiplayer online role-playing game play. *CyberPsychology & Behavior*, 10(5), 717-721.
- Thomas, S. (2006). Pervasive learning games: Explorations of hybrid educational gamescapes. *Simulation & Gaming*, *37*(1), p. 41-45.
- Timberlake, E. M., & Cutler, M. M. (2001). *Developmental play therapy in clinical social work*. Needham Heights, MA: Allyn and Bacon.
- Video Game. (2009). In *Merriam-Webster Online Dictionary*. Retrieved from http://www.merriam-webster.com/dictionary/Video Game
- Wadsley, P. (2009). Wii! Coming to a rehab center near you. Momentum, 2(2), 47.
- Wang, C., & Wang, C. (2008). Helping others in online games: Prosocial behavior in cyberspace. *Cyberpsychology & Behavior: The Impact of the Internet, Multimedia and Virtual Reality on Behavior and Society, 11*(3), 344-346.
- Wartella, E., & Reeves, B. (1985). Historical trends in research on children and the media: 1900-1960. *Journal of Communication*, *35*, 118-133.
- Young, K. (2009). Understanding online gaming addiction and treatment issues for adolescents. *The American Journal of Family Therapy*, 37(5), 355-372.
- Zapata, A., Moraes, A., Leone, C., Doria-Filho, U., & Silva, C. (2006). Pain and musculoskeletal pain syndromes related to computer and video game use in adolescents. *European Journal of Pediatrics*, 165(6), 408-414.

Note: This paper is part of the annual VISTAS project sponsored by the American Counseling Association. Find more information on the project at: http://counselingoutfitters.com/vistas/VISTAS_Home.htm