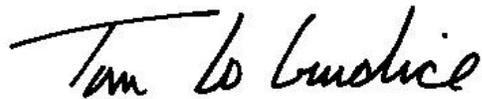


THE EFFECTS OF VIDEO GAMES ON THE COGNITIVE AND SOCIAL DEVELOPMENT
ON TEENAGERS AND YOUNG ADULTS: IMPLICATION FOR COUNSELING.

Approved

A handwritten signature in black ink that reads "Tom Lo Guadice". The signature is written in a cursive style with a long horizontal stroke at the beginning.

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THE EFFECTS OF VIDEO GAMES ON THE COGNITIVE AND SOCIAL DEVELOPMENT
OF TEENAGERS AND YOUNG ADULTS: IMPLICATION FOR COUNSELING.

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Abstract

THE EFFECTS OF VIDEO GAMES ON THE COGNITIVE AND SOCIAL DEVELOPMENT OF TEENAGERS AND YOUNG ADULTS: IMPLICATION FOR COUNSELING

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Under the Supervision of Tom LoGuidice, PhD

Several questions guided this study including the following: What is known about the effects video games had on the social and cognitive development of teens and young adults? What are the symptoms of video game addiction when it comes to teens and young adults? What other types of addictions are similar to video game addiction? What makes video games addictive? What type of information does the APA and DSM-5 have about video game addiction? What can professionals look for in a teen or a young adult if he or she thinks the client has video game addiction? As a result of this research, the author of this paper brought answers to these questions together to inform professionals, who work with teenagers and young adults, in order to prepare them to identify and treat video game addiction.

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CHAPTER ONE: INTRODUCTION

For the past 20 years, gaming has become a part of the American culture. Today, games are at the point of having similar or even larger budgets than Hollywood movies. For example, Grand Theft Auto 5 had a budget at 265 million dollars, which is larger than the majority of Hollywood movies today (Metro.co.uk, 2013). Grand Theft Auto 5 also made close to 2 billion dollars, and it still is growing (Their, 2014).

With more people playing video games, there can be a reduction of certain behaviors and an increase in other behaviors. Researchers need to find out what types of behaviors are affected by playing video games. Researchers need to look into the effect of the video games in teenagers and young adults. Does it affect cognitive brain function? Finally, how does it affect overall development of a person from childhood through adulthood?

Video games also have advanced in the intelligence of the non-player characters. People who played these video games started to form real emotional attachments towards such characters (Coulson, Barnett, Ferguson, & Gould, 2012). Real emotions and attitudes for these characters may affect the interactions with people in real life. This paper will look into the effect of video games on social interactions. Does it make social interactions better or worse? Could video games be used to help people with underdeveloped social skills?

The major issue that to be examined in this study is video game addiction. Several questions guide this study. An important concern is the possible link between video game addiction and chemical addiction. Does the brain act in similar ways with video game addiction to chemical addiction? Special emphasis is needed to understand how video game addiction is problematic in the lives of teenagers and young adults.

Statement of the Problem

To what extent do people who have video game addiction exhibit similar chemical dependence and behaviors of people who suffer drug addictions? To what extent do people with video game addiction are related to other people with behavioral addictions? What counseling steps are effective in helping clients with video game addiction?

Definition of Terms

Addiction: “compulsive physiological need for and use of a habit-forming substance ([such] as heroin, nicotine, or alcohol) characterized by tolerance and by well-defined physiological symptoms upon withdrawal; broadly: persistent compulsive use of a substance known by the user to be physically, psychologically, or socially harmful” (Merriam-Webster, 2014).

Addiction is also defined as “an unusually great interest in something or a need to do or have something” (Merriam-Webster, 2014).

Chemical dependence “is an addiction to or dependence on drugs (Merriam-Webster, 2014).

Significance of the Study

The significance of the study is to see if there is a link between video game addiction and other addictions like alcohol or drug addiction.

Purpose of the Study

The purpose of the study is to review the literature on video game addiction and how it relates to the development of teenagers and young adults.

Method of Approach

A review of literature relating to research, studies, and anecdotal evidence of video games and how it effects the development of teenagers and young adults. Another review of literature on

related research was conducted. The findings were summarized and synthesized, along with recommendations made.

CHAPTER 2: REVIEW OF LITERATURE

Video games have developed into a large media provider that almost all age groups have played at one time or another. A pervasive problem has been developed because of the growing popularity of video games. People who work with students from middle school through college may be interacting with student who play video games regularly. These students may have poorer grades and lack social skills because of the lack of time devoted to attaining good grades and socializing outside of playing video games. A literature review was conducted to determine first, what was written about video games in general; what was written about cognitive and social development among teenagers and young adults; and what was written about the prevalence of video game addiction for these target groups. Finally, a brief review of literature related to counseling is provided.

Video Game Addiction

Video game addiction, like other addictions, can be very harmful to the people who have the addiction. Now that video games are getting more complex with graphics and advance intelligence, it can be harder and harder for people to put the controllers down. Today, most people that play video games are not addicts; however “as many as 10 percent of gamer’s exhibit addictive behavior” (Video Game Addiction, 2014). It is also known that the vast majority of people who suffer video game addiction are “males under 30” (Fearture, 2014). According to the Video Game Addiction website, (2014), practitioners who work with males under 30 need to watch out for many symptoms of video game addiction which include the following:

- Most non-school hours are spent on the computer or playing video games
- Falling asleep in school
- Falling behind with assignments

- Worsening grades
- Lying about computer or video game use
- Choosing to use the computer or play video games, rather than see friends
- Dropping out of other social groups (clubs or sports)
- Being irritable when not playing a video game or being on the computer
- Carpal tunnel syndrome
- Sleep disturbances
- Backaches or neck aches
- Headaches
- Dry eyes
- Failure to eat regularly or neglecting personal hygiene

All of these symptoms are troubling to a teenager or young adult when it comes to overall health and the development of that person. When a teenager plays video games during non-school hours, this teenager is not learning how to socialize with other people his or her age. This could cause future problems with that teenager when he or she interacts with people at work or at college. The teenager neglects his or her development when devoting all of his or her time to video games because he or she isn't experiencing the world and interactions with others.

A study has been conducted by Brunborg, Mentzoni, & Frøyland, (2014), showed that video game addiction was associated with higher level of depression, poorer academic achievement, and more conduct problems. Video game playing also was found to have a significantly negatively correlation with college GPA (Burgess, Stermer, & Burgess, 2012). This effected the male population more than the female population. Burgess, Stermer, & Burgess, (2012), concluded that time displacement hypothesis was relevant to video game use and how it was

associated with lower college performance. Time displacement hypothesis explains that time that could be used to do “intellectually demanding activities such as homework or studying” is instead being spent playing video games (Burgess, Stermer, & Burgess, 2012). The teenager and young adult become trapped into video games because he or she sees video games as a part of his or her reality.

An important concept to grasp about people who are addicted to video games is simulation entrapment. Simulation entrapment occurs when a person is “no longer able to keep in mind that what is being experienced is a technologically mediated simulation of some other traditional actuality” (Essig, 2012). Great examples of this concept comes from people who play Massively Multi-player Online Role Playing Games (MMORPGs). Each player creates an avatar that will represent the person in that world. Many people get really involved in this character’s journey that it becomes hard for that gamer to stay away from the character for long periods of time. Eventually, the time outside the game will be considered by this gamer as a wasted experience, and the time inside the game is the time that the gamer desires. Gamers that are effected by Simulation entrapment, will exhibit many of the signs of video game addiction. They may skip class, miss sleep, or even eat less because the player is compelled to play the game. It’s important to note that World of Warcraft is one of the most popular MMORPGs on the market, and many Warcraft gamers would meet the criteria for video game addicts. Online role playing games are known for its time consumption.

Time spent playing video games can vary among all gamers. MMORPGs are known to be big commitments of time for people who play these types of games. Research has shown that 34% of all MMORPG players play the game roughly 21-40 hours a week, and 11% of MMORPG players play the game 40 or more hours a week (Ng, & Wiemer-Hastings, 2005). In

order for mental health practitioners to have a better understanding video game addiction, researchers are looking for ways to measure time spent playing games to addictive behavior. So far there has been no definitive measure that shows playing video games for x amount of hours per week is a sign of video game addiction (King, Delfabbro, & Zajac, 2011). It all depends on “what individuals sacrifice [in order] to play video games or how much personal enjoyment is derived from playing video games [that] is not captured by frequency measures” (King, Delfabbro, & Zajac, 2011). However, when it comes to MMORPGs a “significant negative correlation was found between average hours per week playing World of Warcraft (WoW) and reversed GHQ-28 total score, indicating that increased play time was associated with poorer psychological wellbeing” (Kirby, Jones, & Copello, 2014).

A sense of the nature of addiction may be understood by the quote of some users (gamers) of a popular game. The following quotes are from people who play the game World of Warcraft, from a website called WoWdetox.com (WOWDETOX, 2014). **Note.** Errors have not been corrected.

- "I am 14 and im a freaken addict...my parents seem to care but never try to kick me off or even try to help. i have 2 lvl 70's one that is full t6 and other full t5. thus i have no life i cant even imagine what i would do if i deleted my toons. I really want to quit but i cant. I mean this [expletive deleted] game is controlling me and i cant stop. i have almost deleted my toons but im afraid i'll just start up another one.(WOWDETOX, 2014)
- "Im 12 and i cant stop playing wow i play about 8-10 hours a day mostly because all my frend are on it, and im bored when i dont play it.I just failed socials too so wat should i do." (WOWDETOX, 2014)

- "WOW addiction is no joke. I started to play because cousins and friends played (who are by the way all overweight). At first all I did was play WoW once or twice a day for let's say 2-3 hours. Then out of the blue my cousin stopped playing because he said he was addicted to WoW so he gave me his 70 (rogue). Well after that I was on 6-10 hours a day. I ignored my friends went from working out 4 times a week to twice. I would curse people who asked me to get off. In the end though I realized by playing WoW I was just supporting big business. Also, why waste money, time with friends for a game? I know people who would be a lot better off without WoW. I just want to try to get all the money I have invested into it back so I am going to sell the (rogue)....." (WOWDETOX, 2014)
- "I want to quit WoW so badly, I've been playing for 2 years... The problem is that I don't know what else to do besides play video games. (WOWDETOX, 2014)
- "I ended up ill with a deep vein thrombosis in one of my legs caused, according to the Doctors by me sitting on my backside doing instances all night and all day. (WOWDETOX, 2014)

These quotes indicate that these video game addicts understand that there is a problem in his or her life when it comes to video games, specifically World of Warcraft. Research suggests that MMORPGs addiction shows “ (i) loss of control of the behavior involved; (ii) mood modification (e.g. guilt, depression) as a consequence of having played and lost control; (iii) craving or longing for playing when they are not doing it. (Beranuy, Carbonell, & Griffiths, 2013) The concerns they have are very real, and the fear of the unknown if they quit playing the game is preventing these players to quit.

Internet Gaming Disorder and DSM-5

The DSM-5 put the Internet Gaming Disorder (IGD) in the section of the manual known as Conditions for further study (American Psychiatric Association, 2013). Video game addiction is still not considered a mental disorder by the DSM, however depending on the research it will be included in the next one. Video games seem that they are here to stay in our society. There is an interest to help diagnose people who play too many video games. Chris Bojrab, a MD on Psych Congress network, asked the APA about IGD. They stated that IGD is a “Persistent and recurrent use of the Internet to engage in games, often with other players, leading to clinically significant impairment or distress” (Internet Gaming Disorder and DSM-5 2014). Specific criteria addressed follows.

- preoccupation with such games
- withdrawal symptoms of irritability, anxiety, or sadness
- the development of tolerance
- unsuccessful attempts to control the behavior
- loss of interest in other activities
- continued excessive use despite knowledge of psychosocial problems
- deceiving others regarding the amount of time spent gaming
- use of this behavior to escape or relieve a negative mood
- jeopardizing/losing a significant relationship/job/educational opportunity .

All of these symptoms stated by the APA about IGD shows that IGD can be very harmful to a person who develops the disorder. It can not only reduce the amount of opportunities the person has for work, but it can also reduce the overall health and harm personal relationships. Some of these symptoms are similar to the symptoms for depression. People who are depressed loss

interest in other activities. Perhaps depression or other mental issues could lead a person to have an IGD.

Video Game Addiction in Teenagers

The producers of Video game addiction.org, (2014) states many symptoms that parents can watch out for if their son or daughter has a video game addiction. First symptom deals with preoccupation. “Someone who is addicted to computer, video, or Internet gaming often exhibits an unusual preoccupation with the game or computer when he is away from it” (Video Game Addiction, 2014). This could lead a teen to have less interest in things that normally would have interested any teen, such as hanging with friends. Another example is when a teen that used to be in sports quits in order to have more time to play video games. This could also lead to poor grades in school if the teen would rather play than study. It also could lead the teen to feel irritable when the teen is not playing the video game. With all the time playing video games, a teen might be resistant to limiting the play time.

As a parent, a step to prevent video game addiction is to limit the amount of the time the teenager spends on the computer or game console. However, a symptom to look for in teen who has video game addiction is the teen downplaying computer use. It's common for someone with addictive, computer-related behaviors to downplay the amount of time she spends in front of the TV or computer. The person may make excuses, saying she "needs" to be online, or may outright lie” (Video Game Addiction, 2014). The teenager might get defensive if a parent or peer asks about the amount of time that he or she is playing video games. Also, the teen might make up excuses to get on a game or to stay on a game. If a teenager is playing an online roleplaying

game, he or she might state that the people online need him or her to complete a quest. With this lack of effort from the teenager to control his or her playing time, it might lead to an issue of self-control.

A big part of development throughout adolescence is developing self-control. Teens who are video game addicts seem to have little to no self-control. A person who is addicted, or at risk of becoming addicted to gaming, is unable to control the amount of time she spends on the computer. She may go online with the intent to spend 15 or 20 minutes, but will keep extending the time until several hours have passed (Video Game Addiction, 2014). This can be very negative for a teenager in many ways. The lack of control might lead the teenager to not have time to do other things like socializing with friends and doing homework. It could lead the teen to become overweight if he or she does not participate in physical activities. It can also lead to problems with the family. If given a limited amount of time by his or her parents to be on the computer, it can lead to arguments with the parents and the child about playing time. This lack of self-control can lead to other negative impacts on life. Teenagers have many things going on in their lives. They have school, family, extra-curricular activities, friends, and among other things. However, a teenager with video game addiction has shown negative impacts on others areas of life.

When a person spends so much time on the computer or video game console, other areas of life are neglected. He or she may grow distant from friends and family who may have previously been close. Homework may go unfinished, causing grades to slip. In more extreme cases, the teen may even neglect personal hygiene, choosing to play video games rather than taking a shower (Video Game Addiction, 2014).

The symptoms may be very easy to see. A parent could see grades going down and the lack of engagement from the teen when at home. Also, if a teen used to be great at sports or other school related events but lately has been declining in these areas, it may be related to video game addiction. Video game addiction could also be a way for some teens to disengage from society.

Some teenagers have a lot of negative things that happen to them during their teenage years. For example, they might be bullied or have a lot of stress from school or sports. A symptom of video game addiction could be hiding from negative or uncomfortable feelings or situations in real life. Some people become addicted to gaming because they use it to self-medicate (Video Game Addiction, 2014). A teenager who is feeling sad, gets a bad grade, or is in trouble with friends might use video games as an escape from these situations. It can be a way for the teenager to avoid the negative part of his or her life. Plus, a video game is always controlled by the player. Even though in the teenager's life, he or she has little to no control, the video game allows the teen to be in control. Some of these teens may argue that video games help them relax and forget about these negative events.

Teens that play video games want to escape negative events in life and may become defensive when being told that he or she needs to limit his or her playing time. "When confronted or asked about his time spent gaming, a person may become defensive. Denial is often an indication that something is wrong, especially if the person seems unconcerned that friends and family feel neglected or left out of his life" (Video Game Addiction, 2014). The teen might yell at his friends or parents when asked about his or her gaming time. They might have denial about how much time they play video games. The teen might also not see it as a problem, especially if the video game is perceived by the teen to be helpful to his or her mental state. Another thing of concern is the cost of video games.

A dangerous symptom that could lead to more problems with teens when he or she grows up is misuse of money. First of all game, systems and games are not cheap. Game consoles can fall in the range of 300 to 400 dollars in the United States. These costs don't include gaming accessories and the games. Games at full price can be around 60 dollars. The misuse of money can vary to the type of gaming the teenager may play. For instance, if the teenager uses a computer to play games, he or she would spend money on computer upgrades in order to play with the best graphics. Computers update frequently, so it could be pretty easy to spend a lot of money to keep up with the best graphics. Some online games require a subscription to play, which leads to cost adding up. Finally, if the teen plays games that are supposedly free, can cost money too. These games can sell items to the player to help him or her advance to a higher level more quickly. The misuse of money can cause the teenager to be unprepared for adult life. They might make the wrong decisions with their money and could cause them to be evicted or to go bankrupt.

As with any addiction, video game addiction can cause the user to feel some mix feelings about the amount of time spent playing video games. This may cause the teen to initially feel really well when playing games, but later may feel guilt (Video Game Addiction, 2014). This guilt may be caused by the amount of time spent playing video games, while other obligations are set aside.

Life of a Video Game Addict Video

There is an in depth look at video game addiction in teens on a YouTube series developed by dontouchmyhead.(The Life of a Video Game Addict 2010) The producers examines a 17 year old named Kurt Martin, who has a serious video game addiction. He is known by his family and friends as the video game person. If you were to ask him any question about video games, he

would probably know the answer. When asked questions about his life, it usually centers on video games. He describes that he went to the local high school, but he wished he didn't have to go because it affected his playing time. He said he prefers to play role playing games and Massively Online Role Playing Games, which might contribute to his video game addiction more so than other types of games. These types' of games allow him to escape his reality and form his own identity. This is the way he wants real life to be. He talks about games that take 80 hours to beat is too short for him. To put that into prospective, for a lot of people that is a full time paycheck in the real world. It almost sounds like he would rather play video games than have a full time job, which might be a place of concern if he wants to support himself in the future. He also was asked a question about how video games affects his social. He responded that he is actually being really social because of all the people he knows across the world when he plays video games. His dad even asked him to take 5 minutes of every day to just go outside to get fresh air. His response to that is he wants to quit doing that and just open up his window because the 5 minutes could be spent leveling up his cooking or fishing skills in World of Warcraft.

Overall, this video documentary shows the extreme case of what video game addiction looks like in teenagers. Kurt's friends and his dad are concern that he isn't spending enough time outside or socializing with people face to face. Most cases of video game addiction in teens will not be to this extreme, so it might be harder to determine if in fact that a teenager has a video game addiction.

Video Game Addiction in Adults

Many people perceive video games as a toy and immediately think about teens and young children playing. However, the fact remains that many adults from all aspects of society play video games. Many games go as far as being specifically design for adults. These games may

take more cognitive thought or has adult themes which makes it hard for non-adults to comprehend. Like other addictions, like gambling or substance abuse, video game addiction can affect all aspects of an adult's life.

Video game addiction for adults have similar red flags, or symptoms that can show that an adult may have a video game addiction. One thing might be that the adult will lie about the amount of time spent playing video games. The adult might be defensive about the amount of time they play, so when asked about it, the adult might make up excuses or defend his or her right to play. It can also be hard for an adult to escape the intense feelings of pleasure or guilt when playing video games (Video Game Addiction, 2014). Like other addictions, it takes more and more video game time to feel the same levels of enjoyment (Video Game Addiction, 2014). When spending more and more time with video games, an adult might start to withdraw from friends, family, spouses, and work to the point of disrupting those areas of the adult's life (Video GameAddiction, 2014). This may lead to an adult with video game addiction to feel "anger, depression, moodiness, anxiety, or restlessness" when he or she is not gaming (Video Game Addiction, 2014). Finally, the adult addict might think obsessively about playing video games even when doing other things like work or socializing (Video Game Addiction, 2014).

Other concerns about adult video game addiction may include physical symptoms. The adult can be so preoccupied with playing video game that it makes he or she forget to do things like take a shower, eating, shave, or even basic hygiene (Video Game Addiction, 2014). This and playing video games for extensive periods of time may also cause physical ailments, such as "difficulty sleeping, migraines, back and neck aches, dry eyes, or carpal tunnel syndrome" (Video Game Addiction, 2014). These physical symptoms can affect the two major aspects of an adult's life, including home and work.

The first location that video game addiction in adults can be seen is within the home. This is the location of video game playing, and so the effects of playing video games can be seen with more ease. The first people to see if an adult has a video game addiction are the people he or she lives with. These people who are close to the adult can first see how much time the adult spends playing video games. They may also notice the lack of effort from that adult to spend time with other people in the household. This could cause marital and relationship problems with people in the adult's life (Video Game Addiction, 2014). Other than the fact of neglecting family and friends through video game addiction, there is also a neglecting of household responsibilities and chores by the addict (Video Game Addiction, 2014). All of these problems at home can also lead to problems for the adult at work.

Work performance may also suffer for an adult video game addict. The lack of sleep from playing video games all night can lead the adult to be too tired to perform daily tasks at work (Video Game Addiction, 2014). Supervisors might catch this adult sleeping on the job, which could lead to discipline or being fired (Video Game Addiction, 2014). Even at extreme cases, adults can be caught playing video games using company equipment and time because they cannot control themselves (Video Game Addiction, 2014). Even though the addict's life could be crumbling around himself or herself, he or she will still play video games above everything else (Video Game Addiction, 2014). The problems that can come with video game addiction with adults are different in some ways to video game addiction with teenagers. Most adults do not have parents or other authority figures watching over the adult like most teenagers. This may allow for adults to have control of what he or she does without having someone to tell them otherwise. This also makes it hard for adults to get treatment for his or her video game addiction. Teenagers have those authority figures that might get the teen into treatment, however the adult

might be the one who needs to seek treatment without the aid of someone else. The adult might not know he or she has a problem, so they might delay the treatment that he or she needs in order to control his or her video game addiction.

Psychological and Biological Effects of Gaming

There is a growing body of literature about the effects of games on the psychology of the individual.

Neurobiological and Genetics of Addictions

When studying any type of addiction, there should be a conscious effort by researchers to look at the biological reasons for people to be more prone to addictions. A review of Neurobiology and Genetics of behavioral addictions done by Leeman and Potenza, (2013), looks into the biological aspects of addiction. This review looked at making connections with substance use disorders and behavioral addictions like video game, shopping, gambling, Internet use, kleptomania, and sexual activity (Leeman & Potenza, 2013). They concluded that there are parallels between behavioral addictions and substance abuse addictions (Leeman & Potenza, 2013).

General Deficient Reward System

There is evidence that suggests that addicted individuals have a general deficient reward system (Blum, Cull, Braverman, & Comings, 1996). It can be seen in people who suffer from a variety of addictions. Research has suggested that people who play online games like MMORPGs may have a general reward deficiency (Hahn, Notebaert, Dresler, Kowarsch, Reif, & Fallgatter, 2014). Gamers who play World of Warcraft, displayed significantly decreased neural activation during the anticipation of both small and large monetary rewards in the ventral striatum (Hahn, Notebaert, Dresler, Kowarsch, Reif, & Fallgatter, 2014). Thus, the gamer may

have persistent social problems and addiction-like behavior (Hahn, Notebaert, Dresler, Kowarsch, Reif, & Fallgatter, 2014).

Gaming Addiction and Counseling: An Overview

Internet/Video Game Addiction and Counseling

Family Therapy shows great promise when it comes to treating gaming addiction with young people. Getting the whole family involved is a good way for a therapist 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” (Young, 2009). Therapists should provide 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(Young, 2009). Family therapy should be consistent in order to provide opportunities for the client and the family to understand the process of recovery, relapse triggers and the importance of keeping healthy boundaries (Young, 2009). A strategy that could be used in family therapy is Brief Strategic Family Therapy.

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 (Young, 2009). Even though BSFT was meant to treat children and adolescents that have substance abuse, it can also be used to help treat gaming addiction in children and adolescents. The therapy uses three therapeutic process, and they are joining, diagnosis, and restructuring (Young, 2009). Joining involves “forming a therapeutic alliance with all family members”

(Young, 2009). Diagnosis involves “identifying interactional patterns that allow or encourage problematic youth behavior” (Young, 2009). Finally, Restructuring involves “the process of changing the family interactions that are directly related to problem” (Young, 2009). A therapist can use BSFT to help the child or adolescent reduce the importance of gaming in his or her life in order to allow the “gamer to form his or her identity within the context of a normal childhood development scheme” (Young, 2009).

Current practices that screen and treat video game addiction

There is a growing need to develop treatments and screenings for people with video game addiction. One type of screening that can be used is the WASTE-Time structured interview. If a client were to give an affirmative answer to one question may suggest a strong possibility of the presence of an addictive behavior (Hagedorn & Young, 2011). Parents should be encouraged to see a community-based mental health counselor for follow-up and further assessment if their child’s results indicate a possibility of an addictive behavior (Hagedorn, & Young, 2011). If a client were to “ answer three or more answers affirmatively often meet criteria for an addictive disorder, in which case immediate intervention by a community-based mental health counselor would be warranted” (Hagedorn, & Young, 2011). Suggestions for treatment for clients at this stage would include “such settings as inpatient hospitalization, intensive outpatient counseling, or at the minimum, self-help support group attendance” (Hagedorn, & Young, 2011). Another possibility for treatment for people with video game addiction would be with medications.

Medications can often be used by people with addictions to help a client control their addiction. Bupropion is a medication that has shown to be a possible way to treat people who have video game addiction. “In addition, 6 weeks of bupropion SR treatment decreased craving for Internet video game play and activity of DLPFC in response to video game cue stimulation”

(Han, Hwang, & Renshaw, 2010). Researchers have found that using a bupropion SR treatment, craving for Internet video game play and cue-induced activation in DLPFC of subjects with excessive Internet game play were decreased (Han, Hwang, & Renshaw, 2010). Researchers have also found that bupropion SR may change craving and brain activity in ways that are similar to those observed in individuals with substance abuse or dependence (Han, Hwang, & Renshaw, 2010). Knowing that bupropion has helped people with substance abuse makes it promising for a treatment for people with video game addiction.

In Summary

There has been a big interest with researchers and mental health providers to be able to identify and treat people who have a video game addiction. Gaming addiction has shown that it can be a pervasive behavioral disorder that effects many people. These effects can be lasting on the people who suffer from video game addiction.

**CHAPTER THREE: CONCLUSIONS AND RECOMMENDATIONS FOR EFFECTIVE
SCREENING AND TREATMENT OF VIDEO GAME ADDICTS AMONG TEENAGERS
AND YOUNG ADULTS**

What are the implications, then, for developing opportunities for practitioners who work with teenagers and young adults? First, professionals need to develop more programs that can screen students or employees for video game addiction. The issue with video game addiction is that there isn't a large effort to help people who have video game addiction. If a person goes to a casino, he or she might stumble across a pamphlet about gambling addiction. There should also be similar pamphlets available at places where video games are sold in order to get the awareness of video game addiction. These packets of information could help video game players understand that people can suffer from addiction, and if they see signs within themselves it could be a way for the gamer to get help.

There also needs to be a large effort from the video game developers to help people with video game addiction. Like other industries that provide addictive products, they are socially or legally obligated to help people who suffer from addiction. That should also apply to game developer, especially the ones who supply the most addicts. These video game developers make a lot of money off these addicted players, so it can be seen as a good gesture to try to give back to the community.

Practitioners need to be familiar with the symptoms or red flags of people who suffer from video game addiction. This may include getting practitioners to attend a course or a conference

about video game addiction. There is also a need to be a push from practitioners to get video game and internet addiction into the next DSM. Official recognition from the American Psychological Association will greatly help with the awareness of video game addiction and it will help people get treatment for video game addiction.

Parents need to be involved in order to prevent or treat their children that have video game addiction. A recommendation for anyone who has children is to visit [Video Game Addiction.org](http://VideoGameAddiction.org). There is a wealth of information at the disposal for parents and adults who may suffer from video game addiction. The parents could look at the symptoms and check to see if their child suffers from any of these symptoms. There is also suggestions for treatment for video game addiction on the site, however there could be more information.

The research on the treatment of video game addiction is still in the early phases. Research needs to focus on finding multiple evidence-based treatments for those who suffer from video game addiction. The current research yields some good results, however there needs to be more longitudinal studies conducted in order to yield better results.

Finally, there should be a policy in place with any institution that works with children and young adults to help with the screening and treatment of people who suffer video game addiction. College campuses, for example, could start support groups for video game addicts and have pamphlets of information about video game addiction for those who might need it. Schools for teens and pre-teens could also help with monitoring the progress of all of their students. If there are signs that a student has video game addiction the school can help this child before the video game addiction gets more destructive.

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