

PLAYER OR PLAYED: HOW DOES THE COUNSELING PASTOR HELP SOMEONE
SUFFERING FROM VIDEO GAME ADDICTION?

BY
DAVID A. TICKS

A THESIS SUBMITTED TO THE FACULTY IN PARTIAL FULFILLMENT OF THE
REQUIREMENTS FOR THE DEGREE OF MASTER OF DIVINITY

PROF. NATHAN ERICSON, ADVISOR
WISCONSIN LUTHERAN SEMINARY

MEQUON, WI

FEBRUARY 18, 2022

CONTENTS

ABSTRACT.....	iv
INTRODUCTION	1
LITERATURE REVIEW	4
Video Games are Potentially Addictive.....	4
Effects on the Brain.....	8
Lack of Standardized Diagnostics.....	10
Global Concern	14
Comorbidities.....	16
Maladaptive Coping Strategies	19
Video Game Design.....	23
Genre.....	28
Monetization Tactics.....	30
Young Males are Most Vulnerable	37
Are Females at Risk?	41
Addiction or Engagement	43
Lack of Treatment Options	45
A Lack of Christian Sources	47
WHAT DOES VIDEO GAME ADDICTION MEAN FOR THE CHURCH?.....	49
An Emergent and Serious Issue	49
Young Males Escape into Video Games	50
Manipulative Monetization Tactics	52
THE ROLE OF THE COUNSELING PASTOR.....	55
Attitude towards Christians Receiving Professional Counseling	55
The Three Rs of the Counseling Pastor	56
Counseling Considerations of Video Game Addiction.....	57
Video Game Addiction and Christian Identity	60
THE REPENTANCE MODEL.....	63
Repentance Model Overview.....	63

Objective Justification.....	64
Specific Law	64
Sins Committed Against the Christian.....	65
Sins Done by the Christian	65
Christian Freedom.....	65
Self-Control.....	66
Video Games and Heavenly Matters	66
Lying	66
Stewardship.....	67
Specific Gospel	70
Gospel Examples.....	71
Fruits of Repentance	72
Christian Freedom.....	72
Heavenly Matters	73
Self-Control.....	73
Lying	73
Stewardship.....	74
Social Interactions.....	76
Video Game Addiction and Professional Counseling	76
Repentance Model Adjustments	77
Additional Encouragements	77
CLOSING THOUGHTS AND CONCLUSION	79
Suggestions for Further Research	79
Conclusion	80
APPENDIX.....	81
BIBLIOGRAPHY.....	82

ABSTRACT

Video games have exploded in popularity in the past decade or so. With the rise of video game prominence on the global scale comes an emergent concern of video game related disorders like addiction. Addiction can be a silent and destructive force that leaves lives and relationships in ruin. The destructiveness of video game addiction presents harrowing results equal to those of other types of addiction.

Research remains ongoing for video game addiction and its treatments. The Lutheran pastor is called to communicate God's Word to his flock, but what does he do when he finds one of his flock enslaved to video games?

This paper strives to equip pastors with knowledge about video game addiction and offer practical advice on how to counsel someone suffering from video game addiction using God's Word.

To achieve this goal, this paper will examine the current literature regarding video game addiction. It will offer some implications for the church based on the current literature, present counseling considerations for pastors faced with video game addiction, outline practical guidance for the counseling pastor concerning video game addiction using the repentance model, give additional encouragements for pastors and their ministries concerning video game addiction, and recommend additional areas for further research.

INTRODUCTION

Video games are relaxing, exhilarating, and provocative. Video games are an interactive media that serve numerous purposes, such as recreation and creative expression. Even scientific research has established that video games provide certain cognitive benefits.¹

As Stanley Pierre-Louis, the Entertainment Software Association (ESA) president and CEO, writes, “We are a nation of video game players.”² According to the ESA, nearly 227 million Americans play video games.³ What was once a niche hobby has become normalized in most households. The COVID-19 quarantine and lockdown restrictions of 2020 and beyond⁴ have drastically increased the total number of video game players and game play hours.⁵ According to the ESA, this trend is not transitory. In fact, nine out of ten video game players plan to continue to play video games even after COVID-19 restrictions are lifted.⁶

1. Olatz Lopez-Fernandez et al., “Female Gaming, Gaming Addiction, and the Role of Women Within Gaming Culture: A Narrative Literature Review,” *Frontiers in Psychiatry* 10 (July 10, 2019): 9, <https://doi.org/10.3389/fpsy.2019.00454>; Daphne Bavelier, “Your Brain on Video Games” (TEDxCHUV, Lausanne, Vaud (fr) Switzerland, June 22, 2012), https://www.ted.com/talks/daphne_bavelier_your_brain_on_video_games; Patricia M. Greenfield, *Mind and Media : The Effects of Television, Video Games, and Computers* (Psychology Press, 2014), <https://doi.org/10.4324/9781315735634>.

2. Entertainment Software Association, “2021 Essential Facts About the Video Game Industry,” Entertainment Software Association, 1, <https://www.theesa.com/resource/2021-essential-facts-about-the-video-game-industry/>.

3 Entertainment Software Association, 1.

4. Due to government advisement, most schools and companies required or demanded their workers or student to “work from home” and use virtual means to complete work and communicate.

5. Entertainment Software Association, “2021 Essential Facts About the Video Game Industry,” 1.

6. Entertainment Software Association, 4.

The United Kingdom’s Children’s Commissioner commented on the meteoric rise of video games in popular culture: “Gaming is now a substantive part of mainstream popular culture. The gaming industry is predicted to be worth \$180.1 billion world wide by 2021, with an estimated 2.5 billion video gamers.”⁷

Additionally, the prevalence of smart phones makes video games more accessible than ever. Mobile games⁸ that typically follow a free-to-play (F2P) monetization model have taken over the video game market (see figure 1). In a news article discussing video game trends, Omri Wallach describes the current state of video games:

While the gaming market spotlight is focused on new consoles and games this holiday season, the bigger focus for insiders continues to be the mobile sector. Over the last 20 years, mobile gaming has gone from the industry’s entertaining afterthought to its largest source of revenue—in 2020, the sector is estimated to have generated around \$85 billion. Considering COVID-19 kept many consumers at home, gaming companies like Electronic Arts and Activision Blizzard have reported higher year-over-year revenues and greater market penetration than ever before.⁹

Despite the difficulties many businesses faced during the recent pandemic, the video game industry surprisingly continues to flourish in popularity and profitability in the United States and around the globe.

This stratospheric rise of video games does not come without a share of cautions and consequences. Video games are fun, but they can turn foul. What does the Christian do when something fun starts to cripple their life? How does a pastor help members of his flock with

7. Children’s Commissioner, “Gaming the System,” *Children’s Commissioner*, October 2019, 6, <https://www.childrenscommissioner.gov.uk/wp-content/uploads/2019/10/CCO-Gaming-the-System-2019.pdf>.

8. Players of play mobile games on mobile devices like smart phones and tablets. However, players can also play mobile games on computers and other video game consoles. *Genshin Impact* from miHoYo is a popular example of a mobile game often played on computer or console opposed to mobile devices.

9. Omri Wallach, “How Big Is the Global Mobile Gaming Industry?,” *Visual Capitalist*, December 9, 2020, <https://www.visualcapitalist.com/how-big-is-the-global-mobile-gaming-industry/>.

video game addiction? This paper seeks to arm the counseling pastor with knowledge about the current literature surrounding video game addiction, outline his role in helping those who struggle with video game addiction, and offer encouragements on how to equip God’s people to weather the swelling storm of video game addiction.

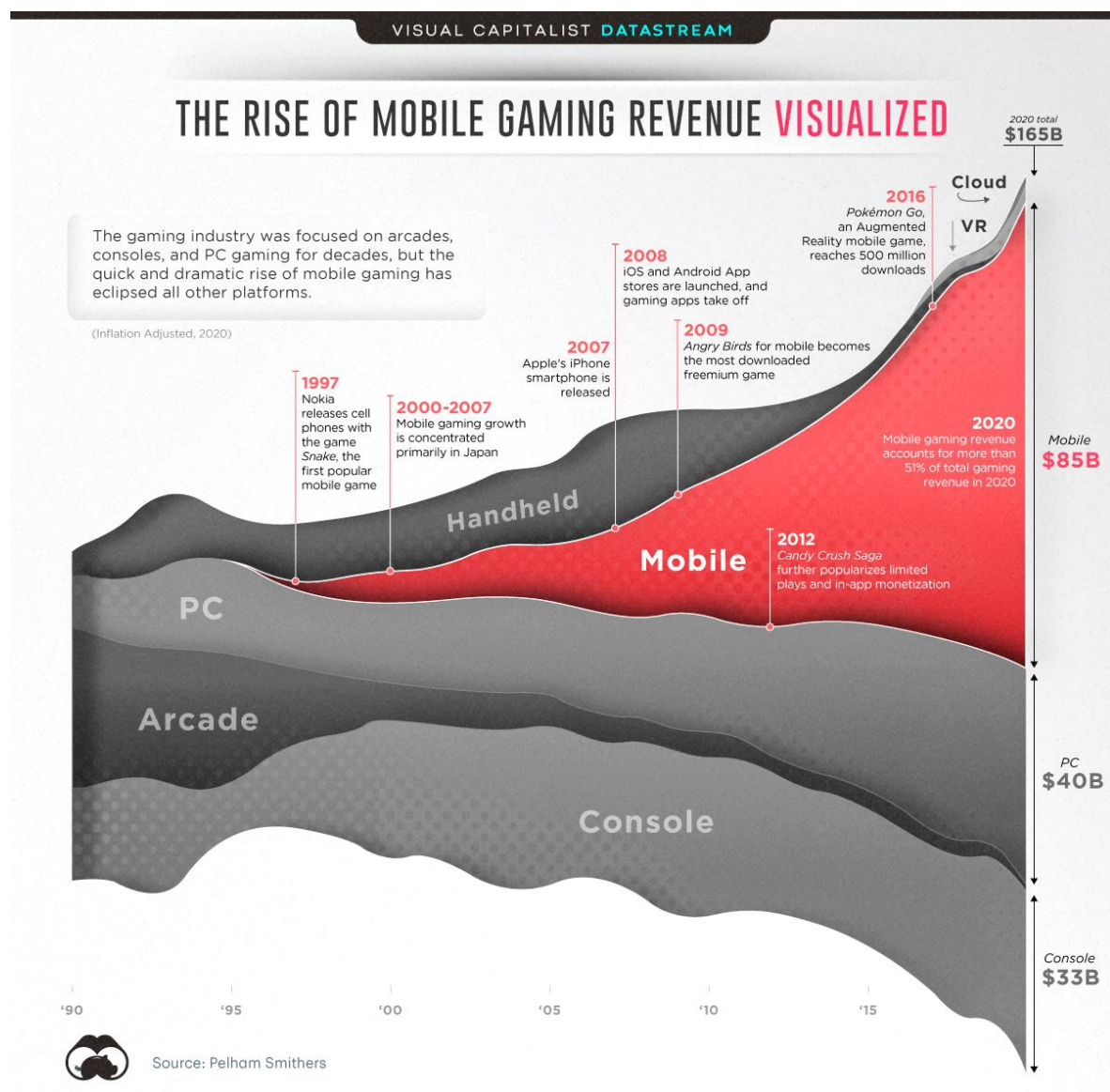


Figure 1. A visualization of the total revenue of video games with a focus on mobile gaming. The visual tracks video game revenue trends from the 1990s until 2020. The visual is subdivided by type of device. Pelham Smithers of Visual Capitalist provided the visual.¹⁰

¹⁰ Wallach.

LITERATURE REVIEW

Video Games are Potentially Addictive

Research on video game-related disorders has progressed rapidly in the past decade or so. Initially a subcategory under internet addiction, current research suggests video game disorders deserve their own category.¹¹ True to the definition of addiction, researchers have found that video games can impair a person's function.¹² In rare cases, video game addiction reportedly can even result in death.¹³

Research has shown that video game addiction can resemble elements of substance abuse. In a study, Yau and Potenza concluded that video games are like other types of addictions: "Addiction professionals and the public are recognizing that certain nonsubstance behaviors—such as gambling, Internet use, video-game playing, sex, eating, and shopping—bear resemblance to alcohol and drug dependence."¹⁴

11. Vega González-Bueso et al., "Association between Internet Gaming Disorder or Pathological Video-Game Use and Comorbid Psychopathology: A Comprehensive Review," *International Journal of Environmental Research and Public Health* 15, no. 4 (April 2018): 1, <https://doi.org/10.3390/ijerph15040668>; Bernardo Dell'Osso et al., "Managing Problematic Usage of the Internet and Related Disorders in an Era of Diagnostic Transition: An Updated Review," *Clinical Practice & Epidemiology in Mental Health* 17, no. 1 (July 14, 2021): 62, <https://doi.org/10.2174/1745017902117010061>.

12. González-Bueso et al., "Association between Internet Gaming Disorder or Pathological Video-Game Use and Comorbid Psychopathology," 2; Daphne Bavelier et al., "Brains on Video Games," *Nature Reviews. Neuroscience* 12, no. 12 (November 18, 2011): 763–68, <https://doi.org/10.1038/nrn3135>.

13. Kevin H. Chen, John L. Oliffe, and Mary T. Kelly, "Internet Gaming Disorder: An Emergent Health Issue for Men," *American Journal of Men's Health* 12, no. 4 (July 2018): 1154, <https://doi.org/10.1177/1557988318766950>.

14. Yvonne H. C. Yau and Marc N. Potenza, "Gambling Disorder and Other Behavioral Addictions: Recognition and Treatment," *Harvard Review of Psychiatry* 23, no. 2 (April 2015): 1, <https://doi.org/10.1097/HRP.0000000000000051>.

Several studies report that video games can impair a person in their daily responsibilities or routines. This impairment of routines or responsibilities could connect to the duration of playing video games. Researchers have recorded a wide breadth of total hours that players spent on video games. In some extreme cases, reports indicate video game players can play forty or more hours a week.¹⁵ The time spent playing video games can impact everyday life in several ways. Bavelier et al. highlight some of the negative consequences of Internet Gaming Disorder¹⁶ (IGD) which can inhibit a person's responsibilities or routines:

School grades and work performance decreased. They also showed disruption of their daily routines (sleeping during the day and gaming at night, irregular meals and poor hygiene) and were irritable, aggressive, and violent when family members asked them to stop playing. Some patients borrowed enormous amounts of money (\$30,000 over three months) to support their on-line game play. Other patients reported on-line game play after finishing school and that this prevented them from obtaining a job or participating in significant social roles.¹⁷

In short, several researchers have observed that video game addiction can ruin the quality of life for those who suffer from it.

A few studies indicate that video game addiction also affects physical health and hygiene. Škařupová and Blinka observe, "Health-related negative consequences are also among the symptoms of excessive patterns of online gaming and include low quality and quantity of sleep, neglecting meals or poor and unhealthy diet, repetitive strain injuries, etc."¹⁸

15. Kateřina Škařupová and Lukas Blinka, "Interpersonal Dependency and Online Gaming Addiction," *Journal of Behavioral Addictions* 5, no. 1: 108, accessed September 15, 2021, <https://doi.org/10.1556/2006.5.2016.002>.

16. For the purposes of this paper, IGD is simply another way to express video game addiction. IGD specifically stresses the reality that most pathological video game users use games connect to the Internet.

17. Bavelier et al., "Brains on Video Games," 7.

18. Škařupová and Blinka, "Interpersonal Dependency and Online Gaming Addiction," 108.

In terms of the mind, several researchers report video game addiction can also negatively impact an individual's mental faculties. Chen, Oliffe, and Kelly summarize hindrances in their report: "Psychosocial issues encompassing diminished real-life relationships, disregard for self-care, sleep deprivation and poor nutrition, decreased school and work performance, low self-esteem, loneliness, increased aggression and hostility, and difficulty with verbal memory were also reported."¹⁹

In terms of academics, researchers observe that video game addiction can impair important mental functions associated with learning. Bavelier et al. typify one of the academic impairments in their research:

In terms of the possibility of video games potentially causing 'reduced attention', we have yet another concept that means different things to different people. If one means the ability to rapidly and efficiently filter visual distractors that are quickly presented (that is, visual attention), then clearly playing action games greatly enhances this ability. However, if one means the ability to sustain focus on a slowly evolving stream of information, such as paying attention in class, there is recent work that suggests that total screen time, and video game playing time in particular, may have negative effects.²⁰

Despite the benefits of video games enhancing visual recognition and acuity that Bavelier reports in her TEDx talk,²¹ she and other researchers conclude that pathological video game use could hinder academic tasks like focusing and processing substantial amounts of information.

In terms of social interactions, several sources report how video games can impair social interactions. Researchers found that social interactions, like relationships, can suffer severely. In one of the interviews recorded in her book, Jean Twenge concludes, "Time spent with friends in person has been replaced by time with friends (and virtual friends) online. 'Some kids are too

19. Chen, Oliffe, and Kelly, "Internet Gaming Disorder," 1154.

20. Bavelier et al., "Brains on Video Games," 4.

21. Bavelier, "Your Brain on Video Games."

addicted to social media and games to interact with other people that are actually next to them.”²² Other sources support this phenomenon. In recent years, males tend to socialize virtually through video games instead of in-person socializing.²³ Moreover, after playing these games to socialize, they might feel obligated to continue engaging with these video games. Some reasons which influence video gamers to continue socializing via video games include that their offline friends play the game with them,²⁴ a sense of social duty to help their friends in the video game environment, or peer pressure.²⁵

Moreover, numerous studies report that video game addiction negatively affects more than just the individual suffering from this addiction. The individual who suffers from this behavior frequently harms those close to them. Chen, Oliffe, and Kelly summarize the effects on those who are associated with those who suffer from video game addiction: “IGD can cause serious impairment of daily functions, debilitating personal relationships, education, and careers. This jeopardizes not only the functionality of the individual with IGD, but also affects the well-being of their loved ones, especially spouses.”²⁶

22. Jean M. Twenge, *IGEN: Why Today's Super-Connected Kids Are Growing up Less Rebellious, More Tolerant, Less Happy-- and Completely Unprepared for Adulthood and (What This Means for the Rest of Us)* (New York: Atria Books, 2017), 73.

23. Twenge, 58.

24. Twenge, 58; Children's Commissioner, “Gaming the System,” 18.

25. Kevin Schut, *Of Games and God: A Christian Exploration of Video Games* (Grand Rapids, MI: Brazos Press, 2013), 78–79.

26. Chen, Oliffe, and Kelly, “Internet Gaming Disorder,” 1155.

Effects on the Brain

Because other substance addictions like those involving drugs and alcohol modify the human brain, researchers sought to verify if behavioral addictions, like video game addiction, produce similar modifications to the brain. Researchers found points of comparison. Several sources report that video game addiction alters the brain's neurochemistry in numerous ways. Goodman and Packard record their results related to changes to the brain's reward center:

Another emerging behavioral disorder that parallels some features of drug addiction is pathological video game playing or video game addiction. Like drug addiction, long-term excessive video game playing has been associated with reduced dopamine D2 receptor binding in the dorsal striatum. Videogame playing is also correlated to increased activation of the dorsal striatum, and greater dorsal striatal volumes predict higher levels of video game skill. People who regularly play action video games are more likely to use dorsal striatum-dependent habit memory in a virtual maze, and pre-training video game playing leads to habitual responding over goal-directed responding in a two-stage decision-making task. Thus, as proposed for drugs of abuse, playing video games might enhance video game addiction via engaging the DLS-dependent habit memory system.²⁷

In short, video game activity can alter the dorsolateral striatum or DLS, which is a critical component of the motor and reward system in the human brain. Video game stimuli rewire the brain to make the individual feel rewarded and compelled to play more.

Furthermore, researchers have recorded a connection between video game addiction and the neurotransmitter dopamine which regulates the brain's reward system. Gros et al. describe how the reward system seeks out pleasurable stimuli, and the link to the stimuli video games produce:

Thus, this pleasant emotional state could be associated with the arousal linked to a reward seeking behavior through which quick and positive results are obtained, which in turn reinforce the mentioned behavior. Probably, this intense arousal situates itself within the

27 . Jarid Goodman and Mark G. Packard, "Memory Systems and the Addicted Brain," *Frontiers in Psychiatry* 7 (February 25, 2016): 4, <https://doi.org/10.3389/fpsy.2016.00024>.

sphere of *pleasure* as a dysfunction in the rewarding system and not in that of *happiness* in spite of the relieving benefits it provides.²⁸

Overall, research confirms that dopamine is a critical component of video game addiction.²⁹

Researchers have even reported that certain video games can trigger dopaminergic stimulation akin to drugs. For example, Goodman and Packard found that video game stimuli could be analogous to the psychostimulant drugs used to treat patients with attention deficit hyperactivity disorder (ADHD). Goodman and Packard conclude that these significant changes to the reward system could contribute to addiction.³⁰ Chen, Oliffe, and Kelly corroborate this conclusion with their findings: “Particularly, habituation to internet gaming is accompanied by an increased level of dopamine in the dorsal striatum, innervating the dopamine reward pathway and feeding into motivations to want to play even more.”³¹

Surprisingly, Chen, Oliffe, and Kelly also discovered that the brain’s neurochemistry changes to such a degree that video game consumption eclipses certain universal rewarding activities like eating and sexual intercourse. Chen, Oliffe, and Kelly report, “Over time, restructuring occurs in the anterior cingulate, orbitofrontal cortex, and nucleus accumbens in such a way that natural rewards, including eating and sex, produce less pleasure for gamers, hence further reducing control over the behavior and contributing to neglect of self-care.”³²

28. Lucio Gros et al., “Video Game Addiction and Emotional States: Possible Confusion Between Pleasure and Happiness?,” *Frontiers in Psychology* 10 (2019): 13, <https://doi.org/10.3389/fpsyg.2019.02894>.

29. Yau and Potenza, “Gambling Disorder and Other Behavioral Addictions,” 6.

30. Goodman and Packard, “Memory Systems and the Addicted Brain,” 5.

31. Chen, Oliffe, and Kelly, “Internet Gaming Disorder,” 1155.

32. Chen, Oliffe, and Kelly, 1155.

Researchers were curious to observe if total game play time influenced alterations to the brain's reward center. Yau and Potenza observed video game players who spent excessive amounts of time playing video games each week. Yau and Potenza report an interesting neurological implication:

While data are relatively limited for other behavior addictions, several recent cue-induction studies have demonstrated activation of brain regions associated with drug-cue exposure. Individuals playing World of Warcraft (a massive, multiplayer, online role-playing game) more than 30 hours per week, compared to nonheavy players (playing less than 2 hours per day) displayed significantly greater orbitofrontal, dorsolateral prefrontal, anterior cingulate, and nucleus accumbens activation when exposed to game cues.³³

The neurological response to video game cues³⁴ found in excessive users of video games is comparable to drug cues which are psychological responses linked to drug stimuli and characteristic to someone suffering from drug addiction. Other researchers, like Bavelier et al., corroborate these findings.³⁵

Lack of Standardized Diagnostics

One of the critical issues hindering research and treatment of video game addiction is the novelty of the disorder. Researchers view video game addiction as a behavioral addiction. Yau and Potenza explain the novelty and difficulty associated with behavioral disorders: "Despite significant advances in research, behavioral addictions remain poorly understood."³⁶

33. Yau and Potenza, "Gambling Disorder and Other Behavioral Addictions," 7.

34. A video game cue is a form of sensory prompt or feedback. For example, the player sees a colorful graphic accompanied by an upbeat jingle indicates to the player that he successfully completed an objective in the game.

35. Bavelier et al., "Brains on Video Games," 7.

36. Yau and Potenza, "Gambling Disorder and Other Behavioral Addictions," 13.

To heighten the difficulty, the Diagnostic and Statistical Manual of Mental Disorders Volume 5 (DSM-5), does not categorize video game addiction or IGD as an officially recognized behavioral addiction. To be fair, at the time of its publication in 2013, the DSM-5 acknowledged the rising concern of video game-related disorders. The DSM-5 also suggests further investigation and inclusion of video game-related disorders in the next edition.³⁷

In the absence of standardized diagnostics, researchers often take an adapted list of the DSM-5's diagnostic criteria for pathological gambling. In recent years, the APA expounds on the DSM-5's comments concerning video game disorders: "The DSM-5 notes that gaming must cause 'significant impairment or distress' in several aspects of a person's life."³⁸ While waiting for a new edition of the DSM, the APA has posted the following list of the unofficially proposed diagnostic criteria for video gaming addiction or IGD. The APA propose:

1. Preoccupation with gaming
2. Withdrawal symptoms when gaming is taken away or not possible (sadness, anxiety, irritability)
3. Tolerance, the need to spend more time gaming to satisfy the urge
4. Inability to reduce playing, unsuccessful attempts to quit gaming.
5. Giving up other activities, loss of interest in previously enjoyed activities due to gaming
6. Continuing to game despite problems
7. Deceiving family members or others about the amount of time spent on gaming
8. The use of gaming to relieve negative moods, such as guilt or hopelessness
9. Risk, having jeopardized or lost a job or relationship due to gaming³⁹

The APA proposes that if a person exhibits at least five of these symptoms within twelve months, they likely suffer from a degree of video game disorder.⁴⁰

37. American Psychological Association, ed., *Diagnostic and Statistical Manual of Mental Disorders: DSM-5*, 5th ed (Washington, D.C: American Psychological Association, 2013), 795–98.

38. American Psychological Association, "Internet Gaming," <https://www.psychiatry.org/patients-families/internet-gaming>.

39. American Psychological Association.

40. American Psychological Association.

The APA also commented on the recent inclusion of video game-related disorders by the International Classification of Diseases 11th Revision (ICD-11). The APA writes, “In late 2017, the World Health Organization (WHO) announced that in the upcoming edition (11th Revision) of the International Classification of Diseases (ICD), gaming disorder will be identified as a new disorder. In some countries, including South Korea and China, video gaming has been recognized as a disorder and treatment programs have been established.”⁴¹ The year 2018 marks the genesis of official recognition of video game-related disorders authored by the ICD-11:

Gaming disorder is characterised by a pattern of persistent or recurrent gaming behaviour (‘digital gaming’ or ‘video-gaming’), which may be online (i.e., over the internet) or offline, manifested by: 1. impaired control over gaming (e.g., onset, frequency, intensity, duration, termination, context); 2. increasing priority given to gaming to the extent that gaming takes precedence over other life interests and daily activities; and 3. continuation or escalation of gaming despite the occurrence of negative consequences. The pattern of gaming behaviour may be continuous or episodic and recurrent. The pattern of gaming behaviour results in marked distress or significant impairment in personal, family, social, educational, occupational, or other important areas of functioning. The gaming behaviour and other features are normally evident over a period of at least 12 months in order for a diagnosis to be assigned, although the required duration may be shortened if all diagnostic requirements are met and symptoms are severe.⁴²

In short, the ICD-11 proposes that if a person exhibits symptoms like impairment to their daily life, negatively prioritizing video games over everyday life, or continual video game play despite the individual’s awareness of the negative consequences within twelve months, they probably suffer from a degree of a video game disorder.

In recent years, mental health resources like the DSM-5 and ICD-11 have begun to establish a form of standardized diagnostic criteria for video game addiction. Nevertheless,

41. American Psychological Association.

42. “ICD-11 - ICD-11 for Mortality and Morbidity Statistics,” <https://icd.who.int/browse11/l-m/en#/http%3a%2f%2fid.who.int%2fid%2fentity%2f1448597234>.

debates still revolve around those standards. In a study published in 2019, Pontes et al. comment on the current state of video game diagnostics:

Moreover, the present findings demonstrated that the GDT (Gaming Disorder Test) can cater to the need for a brief standardized and psychometrically sound tool for assessing GD among Chinese- and English-speaking individuals under the latest diagnostic framework. Therefore, the authors of the present study envisage that the GDT will contribute to facilitating additional research in the field by providing a brief, valid, and reliable psychometric assessment tool to measure the core symptoms and severity of GD.”⁴³

Pontes et al. explain that their work will contribute to the ongoing study of video game-related disorders. This finding underscores the continuing discussion regarding video game disorder diagnostics.

Practically speaking, several sources like González-Bueso et al. and Darvesh et al. agree that a lack of standardized diagnostic criteria promulgates unclear methods of researching video game disorders.⁴⁴ Chen, Oliffe, and Kelly summarize the difficulties of unclear diagnostic criteria: “As a caveat to the aforementioned IGD criterion, it has also been suggested that caution be exercised in making diagnoses because behavioral addictions are a new classification and viewed by some experts as highly controversial.”⁴⁵

Moreover, researchers comment on the desperate need for longitudinal data regarding video game-related disorders to understand this addiction properly. For example, Chen, Oliffe, and

43. Halley M. Pontes et al., “Measurement and Conceptualization of Gaming Disorder According to the World Health Organization Framework: The Development of the Gaming Disorder Test,” *International Journal of Mental Health and Addiction* 19, no. 2 (June 3, 2019): 522, <https://doi.org/10.1007/s11469-019-00088-z>.

44. González-Bueso et al., “Association between Internet Gaming Disorder or Pathological Video-Game Use and Comorbid Psychopathology,” 15; Nazia Darvesh et al., “Exploring the Prevalence of Gaming Disorder and Internet Gaming Disorder: A Rapid Scoping Review,” *Systematic Reviews* 9 (April 2, 2020): 9, <https://doi.org/10.1186/s13643-020-01329-2>; Škařupová and Blinky, “Interpersonal Dependency and Online Gaming Addiction,” 108.

45. Chen, Oliffe, and Kelly, “Internet Gaming Disorder,” 1155.

Kelly highlight that there had only been two longitudinal studies conducted on video game disorders by 2015.⁴⁶

Global Concern

Those who have little to no interest in video games may wonder how prevalent video game addiction is globally. In other words, is video game addiction even a relevant disorder to consider? In 2021, the APA claims, “The researchers found that 0.3 to 1.0 percent of the general population might qualify for a potential diagnosis of internet gaming disorder.”⁴⁷ At first glance, that percentage might not seem like a pressing issue. However, if the projected percentage applies to the population of the United States of America, that would be over three million people who struggle with video game addiction.

Additionally, there is more to this situation. Many studies note that video game-related disorders are a concern. González-Bueso et al. summarize this global and multicultural concern: “The prevalence of the problem and its correlation with psychopathology has been reported in all countries; therefore, it seems that it is a global problem and independent of cultural variation.”⁴⁸

In a study published in 2015, Bavelier et al. report, “about 8% of US gamers between 8 and 18 years of age could be considered pathological or ‘addicted’”. There are now scores of studies showing that the pattern of problems that pathological gamers face is remarkably similar to the problems that people with substance or gambling addictions have. Thus, the problem

46. Bavelier et al., “Brains on Video Games,” 8.

47. American Psychological Association, “Internet Gaming.”

48. González-Bueso et al., “Association between Internet Gaming Disorder or Pathological Video-Game Use and Comorbid Psychopathology,” 15.

seems to have some construct validity.”⁴⁹ In short, according to 2015 statistics, eight out of one hundred children ages eight to eighteen-years-old allegedly suffer from video game addiction.

Several years later, in 2021, Dell’Osso et al. propose an updated estimate of young people who suffer from video game addiction: “In some countries, high prevalence of IGD has been recorded: nevertheless, epidemiological data on IGD vary, depending on age, country, and screening instruments. Asian countries reportedly exhibit a higher prevalence (10–15% among young people in Asian vs 1–10% in Western countries). Men, adolescents and young adults are more likely to be problematic gamers.”⁵⁰ This information recontextualizes the seemingly low percentage of 0.3% and 1.0% reported by the APA of those who may suffer from video game addiction. In a one out of ten or worse ratio, video game addiction disproportionately affects the younger male population.

Asian countries like China and South Korea have already established treatment facilities for video game disorders in response to this concern.⁵¹ In 2021, the Chinese government even restricted a minor’s use of online video games, because the government views video game disorders as a serious societal issue.⁵²

Other European countries like the United Kingdom also address the escalating concern of video game-related disorders. For example, organizations like the Royal Society for Public

49. Bavelier et al., “Brains on Video Games,” 8.

50. Dell’Osso et al., “Managing Problematic Usage of the Internet and Related Disorders in an Era of Diagnostic Transition,” 63.

51. American Psychological Association, “Internet Gaming.”

52. Diksha Madhok, “Tencent Cracks down on Screen Time after Chinese State Media Says Gaming Is ‘Spiritual Opium,’” CNN, <https://www.cnn.com/2021/08/03/investing/tencent-gaming-crackdown-hnk-intl/index.html>.

Health and the Children’s Commissioner have conducted research relating to pathological video game use.⁵³

In summary, video game addiction does not affect every demographic evenly. However, video game addiction is a global concern that primarily affects young people worldwide.

Comorbidities

As research surrounding video game pathology progresses, so do considerations of comorbidities. Many studies observe comorbidities, or simultaneously occurring mental illnesses, with video game addiction. For instance, González-Bueso et al. conducted a study surveying video game addiction and comorbidities.⁵⁴ Several studies cite that depression, anxiety, ADHD, and social phobias as common comorbidities of video game addiction. Other studies conducted by Dell’Osso et al. and González-Bueso et al. report comorbidities of obsessive-compulsive disorder.⁵⁵ Moreover, Petry et al. found comorbidities regarding impulsivity.⁵⁶

53. RSPH, “RSPH | Skins in the Game,” accessed September 2, 2021, <https://www.rsph.org.uk/our-work/policy/gambling/skins-in-the-game.html>; Children’s Commissioner, “Gaming the System.”

54. González-Bueso et al., “Association between Internet Gaming Disorder or Pathological Video-Game Use and Comorbid Psychopathology,” 10–13.

55. Dell’Osso et al., “Managing Problematic Usage of the Internet and Related Disorders in an Era of Diagnostic Transition,” 63; González-Bueso et al., “Association between Internet Gaming Disorder or Pathological Video-Game Use and Comorbid Psychopathology,” 15.

56. Nancy M. Petry et al., “Internet Gaming Disorder in the DSM-5,” *Current Psychiatry Reports* 17, no. 9 (July 29, 2015): 4, <https://doi.org/10.1007/s11920-015-0610-0>; Margot Peeters et al., “Normative, Passionate, or Problematic? Identification of Adolescent Gamer Subtypes over Time,” *Journal of Behavioral Addictions* 8, no. 3: 582, accessed September 26, 2021, <https://doi.org/10.1556/2006.8.2019.55>.

In terms of the comorbidity with the highest connection to video game addiction, González-Bueso et al. found that depression is the most prevalent.⁵⁷ Additionally, Goodman and Packard report that stress and anxiety might spark addictive behavior or addiction relapse: “Enhancement of habit memory following stress or anxiety may be relevant to understanding some prominent factors leading to drug abuse. Namely, stressful life events or chronic prolonged periods of stress/anxiety are associated with increased vulnerability to drug addiction and relapse in humans.”⁵⁸ This vulnerability for addiction and relapse can also be ascribed to behavioral addictions like video game addiction.

In a report from 2019, the United Kingdom’s Children’s Commissioner observe another connection: “The possible link between gaming and gambling, and the concurrent risk of addiction, is also a source of concern.”⁵⁹ In 2021, Yokomitsu et al. conducted a study that reported how games with randomized mechanics like loot boxes⁶⁰ often attract those with problem gambling symptoms. Yokomitsu et al. conclude, “This finding indicated that those with gambling disorder symptoms spent more money in-game on loot boxes than any other player group.”⁶¹

57. González-Bueso et al., “Association between Internet Gaming Disorder or Pathological Video-Game Use and Comorbid Psychopathology,” 12.

58. Goodman and Packard, “Memory Systems and the Addicted Brain,” 4.

59. Children’s Commissioner, “Gaming the System,” 1.

60. In the context of video games, a loot box is a game mechanic that universally shares three traits. Regardless of the different labels or formats, a loot box has: 1. Something in-game that can be purchased for real world or in-game currency, 2. The result of the purchase is randomized and unknown to the player at the time of purchase, 3. The item from the loot box is something that can be used in game.

61. Kengo Yokomitsu et al., “Characteristics of Gamers Who Purchase Loot Box: A Systematic Literature Review,” *Current Addiction Reports*, July 8, 2021, 8, <https://doi.org/10.1007/s40429-021-00386-4>.

In terms of social comorbidities, other researchers like Peeters et al. find individuals with social deficiencies may also suffer from video game addiction.⁶² Comparably, Petry et al. summarize their findings concerning how social deficits link to video game addiction: “Individuals who are socially isolated or have poor interpersonal skills may be particularly attracted to games that allow one to develop online relationships and take on new personalities. Several studies have reported that low sociability or social competence correlated with gaming problems.”⁶³ While research supports a connection between social comorbidities and video game addiction, Škařupová and Blinka caution against the conclusion of social comorbidities definitively predicting video game addiction: “We, therefore, cannot claim that negative interpersonal dependency traits are predictors of addiction, but they certainly are associated with such patterns of online gaming that put an individual at risk of adverse consequences in many areas of life.”⁶⁴

Overall, there are contradictory results regarding the causality between video game addiction and comorbidities. For instance, in 2021, the APA states, “The research and the debate are ongoing. Some argue, for example, that gaming could be a symptom of an underlying problem, such as depression or anxiety, and not a disorder or addiction itself.”⁶⁵ Moreover, González-Bueso et al. summarize the general unclarity around video game addiction and comorbidity causality:

The psychopathology associated with addictive behaviors, with or without substance, can result from a problem or, alternatively, lead to further issues. If the association between two disorders is higher than expected by chance, it is likely that there are mechanisms

62. Peeters et al., “Normative, Passionate, or Problematic?,” 582.

63. Petry et al., “Internet Gaming Disorder in the DSM-5,” 4.

64. Škařupová and Blinka, “Interpersonal Dependency and Online Gaming Addiction,” 113.

65. American Psychological Association, “Internet Gaming.”

contributing to that association. Four general models of increased comorbidity have been described: common factor models, secondary substance-use disorder models, secondary psychiatric disorder models, and bidirectional models. In the first instance, both disorders share risk factors and the higher comorbidity is the result. In the second case, the addictive disorder contributes to other psychiatric disorders. In the third condition, the psychiatric disorder precipitates the addictive behavior. Finally, either disorder can increase vulnerability to the other disorder; in such cases the higher comorbidity reported may be due to inappropriate sampling, assessment, study design or other biases in the published studies.”⁶⁶

In short, González-Bueso et al. observe that one mental illness may make the individual more susceptible to another type of mental illness; however, establishing an order of causality remains difficult.

Maladaptive Coping Strategies

A common trend emerging from video game addiction literature is the connection to maladaptive coping strategies or tactics that temporarily distract from an emotional stressor. For instance, Schut asserts that video game players might use video games to alleviate emotional stress like depression, loneliness, and social anxiety.⁶⁷ Chen, Oliffe, and Kelly corroborate this assertion in their findings: “Using (video games) as a coping strategy, gamers are able to avoid negative moods or thoughts including fear of failure, for as long as they remain in the game.”⁶⁸

Escapism is another name for this strategy of avoiding negative emotions through an activity. According to Peeters et al., both male and female video game players exhibit escapism

66. González-Bueso et al., “Association between Internet Gaming Disorder or Pathological Video-Game Use and Comorbid Psychopathology,” 2.

67. Schut, *Of Games and God*, 77–78; Maria Di Blasi et al., “Problematic Video Game Use as an Emotional Coping Strategy: Evidence from a Sample of MMORPG Gamers,” *Journal of Behavioral Addictions* 8, no. 1: 26, accessed September 26, 2021, <https://doi.org/10.1556/2006.8.2019.02>.

68. Chen, Oliffe, and Kelly, “Internet Gaming Disorder,” 1154.

at the recreational level.⁶⁹ However, Škařupová and Blinka observe that escapism remains a high predictor of video game addiction.⁷⁰

Still, several studies and researchers caution against falsely labeling video game escapism as exclusively pathological behavior. Researchers have acknowledged that escapism has its benefits. Schut succinctly summarizes video game-related escapism as “a double-edged” sword.⁷¹ Blasi et al. observe that escapism can be an adaptive or maladaptive coping strategy: “While the deeply immersive nature of gaming experience can promote regulation of, and relief from, negative mood states, this maladaptive, emotionally focused coping strategy increases the risk of problematic involvement in video games.”⁷² In other words, these video games may offer emotional relief, but the coping strategy does not address the core problem of emotional stress. This strategy typically delays lasting treatment; thus, escapism via video games is potentially maladaptive.

Maladaptive coping strategies have an interesting connection coming out of the events of the COVID-19 pandemic around 2020. Király et al. report that video game escapism had spiked during the COVID-19 pandemic because of “The fear resulting from the disease, the ‘lockdown’ situation, high levels of uncertainty regarding the future, and financial insecurity raise[d] the level of stress, anxiety, and depression experienced by people all around the world.”⁷³

69. Peeters et al., “Normative, Passionate, or Problematic?,” 580.

70. Škařupová and Blinka, “Interpersonal Dependency and Online Gaming Addiction,” 113; Chen, Oliffe, and Kelly, “Internet Gaming Disorder,” 1154.

71. Schut, *Of Games and God*, 74.

72. Blasi et al., “Problematic Video Game Use as an Emotional Coping Strategy,” 31.

73. Orsolya Király et al., “Preventing Problematic Internet Use during the COVID-19 Pandemic: Consensus Guidance,” *Comprehensive Psychiatry* 100 (July 2020): 2, <https://doi.org/10.1016/j.comppsy.2020.152180>.

These extreme conditions may have led people to seek alternative methods of managing the distress they faced. According to their research, Király et al. posit:

Psychoactive substance use and other reinforcing behaviors such as gambling, video gaming, TV series watching, using social media, watching pornography, or surfing the internet are often used to reduce stress and anxiety and/or to alleviate depressed mood. These potentially addictive behaviors may help alleviate stresses of daily living (often reflected as “escapism”) and avoid problems and difficult thoughts. Although these behaviors typically constitute non-problematic (or perhaps even healthy) coping strategies, for a minority of individuals they can lead to reduced engagement in usual social interactions and other activities of daily living.⁷⁴

In summary, people may have used video games to manage the immense emotional distress from fear of death or the loss of a job caused by the COVID-19 virus and government-mandated lockdowns.

Escapism attempts to resolve various forms of emotional distress. Chen, Oliffe, and Kelly observe that video game escapism seeks to alleviate loneliness: “For gamers who may experience loneliness and/or have few friends, MMORPG can be an attractive and legitimate portal to achieve social acceptance. These virtual practices for social connection however are also linked to mental illness including anxiety and depression.”⁷⁵ Essentially, this video game alternative to in-person relationships links to mental illnesses. In another layer to the situation, Elliott et al. report that single, separated, or divorced individuals are more likely to suffer from video game addiction than a married individual.⁷⁶ In summary, video games may allow the player to escape temporarily from feelings of loneliness, but video games do not effectively treat this loneliness.

74. Király et al., 2.

75. Chen, Oliffe, and Kelly, “Internet Gaming Disorder,” 1154.

76. Luther Elliott et al., “Video Game Genre as a Predictor of Problem Use,” *Cyberpsychology, Behavior and Social Networking* 15, no. 3 (March 2012): 159, <https://doi.org/10.1089/cyber.2011.0387>.

In connection to loneliness, Christopher Mulligan, a legal support for children and women, asserts that video games might function like cyber pornography and further function as a type of medicine which attempts to resolve symptoms of another problem. However, this “medicine” doesn’t fix the underlying problem:

It can be pretty hard to leave this fantasy world when one’s reality may feel depressing because of rejection from peers at school or family problems. The bottom line here is pornography can function like a magic pill: “take one” and all of the complicated and emotionally draining problems of everyday life vanish. The problem is the more you live in fantasy (and this goes for video games as well) the bigger your problems become. Hiding and withdrawing from life only makes life more difficult in the long run.⁷⁷

In summary, the pornography or video games may ease the pain, but neither will cure the problem.

In 2018, Castro-Calvo et al. published a letter to the editor of the *Journal of Behavioral Addictions*. The question Castro-Calvo et al. proposed may serve as anecdotal evidence of this connection between pornography use and video games. On April 11, 2018, when the popular online video game *Fortnite* went offline due to a server crash, the online pornography platform Pornhub reported an overall increase in traffic on the website. More interestingly, during that same time when *Fortnite* servers were down, Pornhub reported a substantial rise in searches including the term “Fortnite”.⁷⁸ This anecdote fails to prove anything definitive, but it does suggest pornography and video game consumption may be linked.

On another note, the findings from Chen, Oliffe, and Kelly suggest that masculine practices may contribute to video games as a maladaptive coping strategy. Chen, Oliffe, and

77. Christopher Mulligan, “The Teenager’s Guide to the Safe Use of Internet Pornography,” 9.

78. Jesús Castro-Calvo et al., “Does ‘Forced Abstinence’ from Gaming Lead to Pornography Use? Insight from the April 2018 Crash of Fortnite’s Servers,” *Journal of Behavioral Addictions* 7, no. 3: 501, accessed September 26, 2021, <https://doi.org/10.1556/2006.7.2018.78>.

Kelly explain, “The increased prevalence of mental illness among young men has also been linked to social isolation and masculine practices of stoicism and self-reliance, whereby many men internalize their problems and employ maladaptive coping strategies.”⁷⁹

With the increase of transgender identifying individuals, Arcelus et al. examined how transgender individuals use video games as a means of escapism. Arcelus et al. conclude that video game escapism might help in clinical settings. Still, practically speaking, video game escapism does not substantially help video game players in the transgender community with interpersonal problems and depression.⁸⁰ Moreover, escapism via video games as a method to deal with interpersonal issues and depression is not exclusive to those in the transgender community.⁸¹

Video Game Design

Video game companies typically make video games marketable to customers. Naturally, video game companies task video game developers to design video games that appeal to the target audience. The fundamental video game design aims to entice players to play more often and sometimes even to addict them to play.

Bavelier et al. report, “Video games exploit well-established principles of motivation and learning that have been established by experimental psychology and neuroscience research.”⁸²

79. Chen, Oliffe, and Kelly, “Internet Gaming Disorder,” 1156.

80. Jon Arcelus et al., “Video Gaming and Gaming Addiction in Transgender People: An Exploratory Study,” *Journal of Behavioral Addictions* 6, no. 1 (March 1, 2017): 26, <https://doi.org/10.1556/2006.6.2017.002>.

81. Arcelus et al., 26.

82. Bavelier et al., “Brains on Video Games,” 9.

Schut echoes this finding by commenting on the constant positive feedback loops which inherently make video games attractive: “Practically all games feature some kind of reward for the player.”⁸³

In a podcast with Warren Farrell, psychologist Jordan Peterson compares the reward structure in video games to other reward structures outside of video games:

What’s different [about video games], so a game for a little kid has to be immediately rewarding. That’s why rough-and-tumble play works for example, [it] has to be immediately rewarding. And then the game shades into real life, but as the game shades into real life what happens is the rewards are deferred and you get more and more disciplined at not being immediately rewarded like when you’re learning to read or play the piano. For the long-term goal the thing about video games is that they do require the development of skill, but the immediate reward is built in along with the delayed reward because otherwise the game wouldn’t be fun for someone who’s learning. And so the problem is that a lot of real-life games aren’t necessarily fun while you’re learning them, because you have to attain a certain level of mastery and that requires discipline.”⁸⁴

In summary, Peterson observes that the inherent qualities of video games could bypass the pain and negative consequences associated with learning skills outside of a video game context.

In a 2016 presentation at Pocket Gamer Connects Helsinki, Torulf Jernström, the CEO of the video game company Tribeflame, described how video game designers leverage behavioral psychology to manipulate players to spend time and money in their game.⁸⁵ Jernström asserts that a prominent example of psychological manipulation revolves around integrating a random reward schedule. Schut and researchers like Larche et al. also verify the psychological efficacy

83. Schut, *Of Games and God*, 76.

84. Jordan Peterson and Warren Farrell, “#47 - Warren Farrell - The Absolute Necessity of Fathers,” <https://www.jordanbpeterson.com/podcast/episode-47/>.

85. Torulf Jernström, “Let’s Go Whaling: Tricks for Monetising Mobile Game Players with Free-to-Play” (Pocket Gamer Connects Helsinki 2016, Helsinki, October 3, 2016), <https://www.youtube.com/watch?v=xNjI03CGkb4>.

of a random reward schedule.⁸⁶ This psychological strategy stems from B. F. Skinner’s studies of operant conditioning. The psychological arousal from acting tends to reinforce the action into a habit. For instance, if a randomized event happens in a video game and produces a positive result for the player, the player will typically seek out more randomized events for the chance of another positive psychological arousal.

Video game companies may employ behavioral psychology to make the game more compelling and enjoyable for the player experience. In other cases, Jernström asserts video game companies may psychologically target players to become highly invested large spenders within their game.⁸⁷ Those in the gaming community often refer to these spenders as “whales.”⁸⁸ Whales disproportionately financially support the game compared to the general player base.⁸⁹

Jernström cited Daniel Kahneman’s heuristic research as a method that video game companies may employ to encourage microtransactions or in-game purchases. According to Kahneman, the brain thinks in two different systems: System One and System Two. On the one hand, System One is instinctive, intuitive, and emotional. On the other hand, System Two thinking is slower, deliberative, and logical.⁹⁰ Video game companies want to encourage System

86. Jernström; Schut, *Of Games and God*, 76; Chanel J. Larche et al., “Rare Loot Box Rewards Trigger Larger Arousal and Reward Responses, and Greater Urge to Open More Loot Boxes,” *Journal of Gambling Studies* 37, no. 1 (2021): 160, <https://doi.org/10.1007/s10899-019-09913-5>.

87. Jernström, “Let’s Go Whaling.”

88. Whales are akin to the high rollers in gambling. They tend to spend hundreds, thousands, or tens of thousands of dollars, on a single video game.

89. Jernström, “Let’s Go Whaling.”

90. Daniel Kahneman, *Thinking, Fast and Slow*, 1st edition (New York: Farrar, Straus and Giroux, 2013); Jernström, “Let’s Go Whaling.”

One thinking mode in video games to ensnare players to spend impulsively instead of evaluating the cost of spending money on virtual items or perks.⁹¹

Jernström provides a chief example of this tactic. Video game companies exploit System One thinking by tapping into artificial scarcity or the colloquialism “fear of missing out” (FOMO).⁹² Suppose a video game presents the player with a reward that has an expiration date. In that case, the player is more likely to spend because the player wishes to avoid the potential negative emotional consequences of missing a seemingly good opportunity.

According to Jernström, video game companies may exploit a player’s “type.” Richard Bartle found that certain types of video game players offer insights into the specific goals a player has in playing a video game. One type of video game player is Achievers, who prioritize reaching particular goals in a video game. Another type is Socializers, who play games to foster and flourish relationships. One more type is Killers, who value competition. The last type is Explorers, who value discovery, story, and wonder in video games.⁹³

Jernström explains that video game companies design their video games to accommodate the needs of these types of players to increase player engagement. What is more, video game companies can exploit the needs of the four types of players to incentivize spending. For example, video game companies may offer paid options to increase convenience for Achievers to reach their goals faster. They may offer paid customization options for Socializers to show off to their friends. They may offer paid competitive advantages to Killers to increase their odds of

91. Jernström, “Let’s Go Whaling.”

92. Jernström; Children’s Commissioner, “Gaming the System,” 22.

93. Jernström, “Let’s Go Whaling”; “Richard A. Bartle: Players Who Suit MUDs,” <https://mud.co.uk/richard/hcds.htm>.

winning. Finally, they may offer paid story content to the Explorers to experience more of the in-game environment.⁹⁴

Video game companies may also adjust a player's progression to encourage spending. According to Jernström, video games utilize four fundamental ways to progress. One way is skill or the technical ability to overcome a challenge in the game. Another way is luck, or random events that determine the success or failure for the player. One more way is to grind or to repeatedly do tasks to increase power to progress. The last and more recent way to progress in video games is pay-to-progress.⁹⁵ This progression method offers the players paid solutions for in-game challenges. The Children's Commissioner observes a prominent example of pay-to-progress in popular video games. In *FIFA: Ultimate Team*, players can spend money on loot box-like mechanics called "FIFA card packs" to randomly acquire higher quality football players. These quality football players may give a competitive edge to the owner when playing against other players in the *FIFA: Ultimate Team* mode.⁹⁶

The United Kingdom's Royal Society for Public Health (RSPH) and Children's Commissioner conclude these psychological tactics that encourage video game players to pay real money to progress might promote pathological behavior in video games. The RSPH reports, "This meant that [video gamers] were being made to run the risk of engaging with content they perceived as a form of gambling, simply to continue with their game."⁹⁷ The Children's Commissioner observes that video game companies who implement these psychological

94. Jernström, "Let's Go Whaling."

95. Jernström.

96. Children's Commissioner, "Gaming the System."

97. RSPH, "RSPH | Skins in the Game," 21.

strategies might worsen video game addiction, because these strategies artificially encourage players to spend exorbitant amounts of time and money on their video game. The Children's Commissioner reports:

Some of the addictive qualities are exacerbated by the game itself, which requires players to spend a lot of time and/or money in the game in order not to be left behind. For instance, in FIFA, with the release of new players and the ability to upskill existing players using the daily squad-building challenges, there is a sense that those playing the game need to play consistently in order to have a good chance of winning.”⁹⁸

In short, research suggests video game companies may amplify the addictive aspects of video games by infusing video game design with specific exploitation of behavioral psychology. This exploitation is especially true when video game design requires the video game player to spend real money to progress.

Genre

Despite the lack of official diagnostic criteria, researchers have observed that specific video game genres demonstrate higher connections to video game-related disorders. While the link to video games and pathological behavior is complex, researchers observe that aspects like genre impact the addictive qualities of video games. In a study, Dell'Osso et al. conclude that certain qualities affect addictiveness:

Different factors contribute to determining online video games' reinforcing properties. These include the ease of access a game provides via portable or handheld devices, the possibility of engaging in competition with other gamers, the perception of oneself in a manner that is more rewarding and less impacted by real world issues and the specific genres, designs and contents of the games.⁹⁹

98. Children's Commissioner, "Gaming the System," 19.

99. Dell'Osso et al., "Managing Problematic Usage of the Internet and Related Disorders in an Era of Diagnostic Transition," 63.

Ease of access, competition, rewards, game design, game content, and genre contribute to a video game's ability to addict the player.

Other researchers corroborate this general finding. Yau and Potenza report that video game genres might present more threat for pathological behavior than others:

Different forms of gambling (e.g., strategic versus nonstrategic, sports betting) and different locations (e.g., casino) may present different risks for developing disordered gambling. Similarly, different genres of game playing (e.g., massive, multiplayer online role playing, puzzle and strategy, action), different forms of Internet use (e.g., social networking, email, blogging), and different types of food (e.g., sugar, fat) may possess different addictive potentials and engage cognitive, behavioral, and affective systems in distinct manners.¹⁰⁰

Yau and Potenza draw insightful connections to the addictive potential of types of food, types of gambling, and types of video games. Consuming certain types of food may have positive or negative side effects and, in a similar fashion, specific genres of games potentially pose a higher risk for developing video game addiction.

Some readers may wonder, "What genres are highly connected to video game addiction?" Several studies suggest specific genres are highly linked to video game addiction. Elliot et al. identify that certain genres like action adventure, massively multiplayer online role-playing game (MMORPG), first-person-shooter (FPS), and gambling games as the highest predictor of problematic gaming. Popular examples of action adventure, MMORPG, and FPS are *Grand Theft Auto*, *World of Warcraft*, and *Call of Duty*, respectively. Elliot et al. emphasize that MMORPG and FPS genres maintain the highest connection with pathological gaming.¹⁰¹

Other researchers corroborate that the MMORPG genre notoriously links to video game pathology. Prominent examples of this genre are *World of Warcraft* and *Final Fantasy XIV*.

100. Yau and Potenza, "Gambling Disorder and Other Behavioral Addictions," 13.

101. Elliott et al., "Video Game Genre as a Predictor of Problem Use," 158.

Chen, Oliffe, and Kelly highlight that there are some key attractive features of MMORPGs relating to video game addiction: “Contrasting offline games using consoles, MMORPG are never-ending, have global reach, attract gamers to play incessantly, and are associated with a greater tendency to develop addictive behaviors.”¹⁰²

Video game genres ebb and flow in popularity. As a result, previously underrepresented genres could become equally dangerous over the course of time. Škařupová and Blinka observe that recently popular game genres like multiplayer online battle arena (MOBA) could be potentially addictive.¹⁰³ Popular MOBAs on the market are *League of Legends* and *Dota 2*.

Monetization Tactics

Video games have evolved in numerous ways over the years. Like any other marketable product, one of the evolutions in the video game industry is monetization strategies. With the advent of free-to-play (F2P) games,¹⁰⁴ video game companies have included new monetization tactics to increase profit. These new tactics are downloadable content or microtransactions. As Schut mention in his book *Of Games and God*, video games with these types of monetization are “easy to start, hard to stop.”¹⁰⁵ Monetization tactics like loot boxes are controversial sources of concern in modern video games because of their predatory and addictive nature.

Video game players, researchers, and government institutions have noticed these tactics. Researchers Zendle, Meyer, and Over clarify that the current research fails to establish the

102. Chen, Oliffe, and Kelly, “Internet Gaming Disorder,” 1152.

103. Škařupová and Blinka, “Interpersonal Dependency and Online Gaming Addiction,” 111–12.

104. As the name suggests, free-to-play games do not have a price tag to download and play them. The caveat is these games contain in-game purchases.

105. Schut, *Of Games and God*, 78.

causality between video games and gambling.¹⁰⁶ However, Zendle, Meyer, and Over report, “Loot boxes have consistently been linked to problem gambling.”¹⁰⁷

Other researchers like Larche et al. corroborate this distressing discovery: “Recent research has established a link between problem gambling severity and expenditure related to loot boxes specifically arguing that loot box use within games may function as a ‘gateway to gambling.’”¹⁰⁸

While this paper primarily focuses on video game addiction, researchers have reported that loot box-like features appear to be an essential and pathological component in modern video games. Yokomitsu et al. express this integral relationship between video games and loot boxes: “Overall, this review found a positive relationship between Internet gaming disorder–related symptoms and engagement with, or investment in, loot boxes—as loot boxes are essentially a component of Internet games.”¹⁰⁹

A reader who is unfamiliar with modern video games may wonder how an addictive behavior like gambling could exist in games both marketed and available to minors. Some prominent video game companies like Electronic Arts insist, on the record, that loot boxes are “quite ethical and fun.”¹¹⁰ Scientific research, and some government institutions, judicial court cases, and video game players have concluded the opposite.

106. David Zendle, Rachel Meyer, and Harriet Over, “Adolescents and Loot Boxes: Links with Problem Gambling and Motivations for Purchase,” *Royal Society Open Science* 6, no. 6: 13, accessed October 18, 2021, <https://doi.org/10.1098/rsos.190049>.

107. Zendle, Meyer, and Over, 14.

108. Larche et al., “Rare Loot Box Rewards Trigger Larger Arousal and Reward Responses, and Greater Urge to Open More Loot Boxes,” 142.

109. Yokomitsu et al., “Characteristics of Gamers Who Purchase Loot Box,” 9.

110. “EA Games: Loot Boxes Aren’t Gambling, They’re Just like a Kinder Egg,” *BBC News*, June 20, 2019, sec. Newsbeat, <https://www.bbc.com/news/newsbeat-48701962>.

Researchers and experts note the potential dangers of addiction that loot boxes present to video game players. The National Health Society (NHS) of the United Kingdom cite the chief mental health nurse's concerns and recommendations about loot boxes: "Frankly no company should be setting kids up for addiction by teaching them to gamble on the content of these loot boxes. No firm should sell to children loot box games with this element of chance, so yes those sales should end."¹¹¹

Researchers are concerned with the apparent reality that video game companies exploit video game players with loot boxes that produce many negative consequences.¹¹² The Children's Commissioner expresses concern regarding money spent on video games:

When money is involved, online gaming starts to look less like play. The reasons as to why children spend money within games vary but largely relate to enjoyment, wider social pressures and in-game mechanics that normalise spending. These pressures, coupled with the widespread use of in-game features that produce a random selection of items, encouraged children to over-spend and lose track of how much they were spending.¹¹³

In summary, the Children's Commissioner observed that game companies might leverage the player's enjoyment, peer pressure, and game mechanics to lure players into excessive and irresponsible spending.

In terms of enjoyment, researchers have concluded that video game loot boxes attract players because of the psychological impact loot box mechanics have on players in the context of playing the game. In a study published in 2021, Larche et al. observed the psychological arousal

111. NHS, "NHS England » Country's Top Mental Health Nurse Warns Video Games Pushing Young People into 'under the Radar' Gambling," January 18, 2020, <https://www.england.nhs.uk/2020/01/countrys-top-mental-health-nurse-warns-video-games-pushing-young-people-into-under-the-radar-gambling/>.

112. Zendle, Meyer, and Over, "Adolescents and Loot Boxes," 17.

113. Children's Commissioner, "Gaming the System," 19.

of players when opening loot boxes. Larche et al. explain, “Thus, loot boxes may be particularly alluring outcomes because they may trigger a buildup of arousal prior to the outcome, followed by a further increase in arousal if the items revealed are ones coveted by the player.”¹¹⁴

Studies have observed another concerning feature of video game loot boxes. Loot boxes are intrinsically psychologically attractive because of the sensory spectacle when opening them. Zendle, Meyer, and Over report that the digital medium of video game loot boxes allows for more creative methods to entice players. Zendle, Meyer, and Over explain, “First, the digital nature of loot boxes means that companies can present the opening of them in creative ways that would not be possible in the real world. Often, these methods are designed to increase the engagement of the player, using a range of salient visual and auditory cues.”¹¹⁵

Some loot box advocates argue loot boxes and gambling are nothing alike because items obtained from loot boxes may have no official monetary value. However, Larche et al. affirm that video game players do value these digital items obtained from loot boxes:

Despite conferring no real-world value, loot boxes, especially those of greater rarity, are treated as rewarding and urge-inducing events. While the relationship between loot boxes, problem video gaming and problem gambling is still in need of further investigation, the consequences of such potential associations have profound implications for the future regulation of these and similar features in games.¹¹⁶

Alarmingly, Larche et al.’s research further reports that players desire the rare content in these boxes and even desire to open more loot boxes. Larche et al. explain, “The current research is among the first to provide empirical evidence that the reveal of highly desirable items increases

114. Larche et al., “Rare Loot Box Rewards Trigger Larger Arousal and Reward Responses, and Greater Urge to Open More Loot Boxes,” 143.

115. Zendle, Meyer, and Over, “Adolescents and Loot Boxes,” 4.

116. Larche et al., “Rare Loot Box Rewards Trigger Larger Arousal and Reward Responses, and Greater Urge to Open More Loot Boxes,” 161.

both arousal and more importantly urge to open more loot boxes, for the potential for problematic play in loot box games.”¹¹⁷

As for governmental institutions, the governments of Belgium and the Netherlands have labeled loot boxes as gambling.¹¹⁸ As a result, Belgium banned loot boxes in 2018.¹¹⁹ Regarding judicial cases, some video game companies have been sued for predatory use of loot boxes in video games. For example, a multi-million-dollar class action lawsuit was filed against Epic Games because of the predatory use of loot boxes in their popular video game *Fortnite*. Interestingly, instead of disputing the claims in court, Epic Games settled the case and paid restitution damages.¹²⁰

Regarding video game players’ opinion on loot boxes, the RSPH records in their investigation, “Young people consider loot boxes and skin betting (players gambling virtual appearances with other players) to be highly addictive forms of gambling.”¹²¹ The Children’s Commissioner observes examples of pathological gambling behavior when video game players are aware of the statistical unlikelihood of getting a desired item, yet players would risk opening a loot box anyway: “In the FIFA groups, children were aware that the odds of receiving good players is low and some children explicitly related the purchase of player packs to gambling. Nonetheless, they are still happy to spend hundreds of pounds on packs. ‘It’s like gambling —

117. Larche et al., 160.

118. Children’s Commissioner, “Gaming the System,” 7.

119. Koen Geens BVBA Zenjoy, “Loot Boxes in Three Video Games in Violation of Gambling Law | Federal Member of Parliament,” Koen Geens, <https://www.koengeens.be/news/2018/04/25/loot-boxen-in-drie-videogames-in-strijd-met-kansspelwetgeving>.

120. Zanca et. al. v. EPIC GAMES, INC., 21-CVS-534 (2021).

121. RSPH, “RSPH | Skins in the Game,” 4.

you could lose your money and not get anyone good, or get someone really good.’ Tim, 16 (FIFA player)”¹²²

According to interviews conducted by the Children’s Commissioner, video game players feel excessive monetization in video games is becoming “normalized.”¹²³ The Children’s Commissioner summarizes some of the pressures to spend which video game players experience:

Peer pressure from friends and online strangers, as well as influence from famous gaming YouTubers, are all factors that children say lead to them feeling pressured to spend money on in-game purchases.... Game design also encourages spending. In games such as FIFA, children can either improve by investing significant time to build up their squad or spend money in the hope of quickly advancing their position. The latter option — to spend money in the hope of progressing - is the most popular option across the sample. With new editions of FIFA being released every year, children feel as though there is an expectation and pressure to buy new players, spend money and build up their team as quickly as possible.¹²⁴

In summary, both internal and external forces barrage video game players with encouragements to spend real money in video games. Some video game players see loot boxes as “a fun and sometimes necessary part of the game experience.”¹²⁵ Additionally, video game players feel obligated to spend money to “keep up” with other players or the game’s content.¹²⁶

Studies have also shown that the rarity or perceived value of loot box contents elicit distinct psychological arousal or excitement. In a study conducted in 2019, Larche et al. conclude that the highest rarity items from loot boxes produced the most significant increase in psychological arousal compared to the next highest rarity item.¹²⁷ The study’s procedure includes

122. Children’s Commissioner, “Gaming the System,” 20.

123. Children’s Commissioner, 21.

124. Children’s Commissioner, 3.

125. Children’s Commissioner, 21.

126. Children’s Commissioner, 21.

127. Larche et al., “Rare Loot Box Rewards Trigger Larger Arousal and Reward Responses, and Greater Urge to Open More Loot Boxes,” 149.

showing *Overwatch* players a movie that opens over forty loot boxes from *Overwatch* (see figure 2). Larche et al. record the players' psychological responses in viewing various items of different rarity emerge from a loot box. From the lowest rarity to the highest, these are the rarities in *Overwatch*'s loot boxes: gray is common, blue is rare, magenta is epic, and gold is legendary. The loot box begins closed, and the viewer is unaware of the specific item the video game will generate from the loot box. A spectacle of visuals and music accompany the progressive opening of the loot box. When the loot box finally opens, the viewer discovers what item was in the box. After the movie ends, the researchers recorded the players' level of psychological arousal based on the item's value or perceived value.

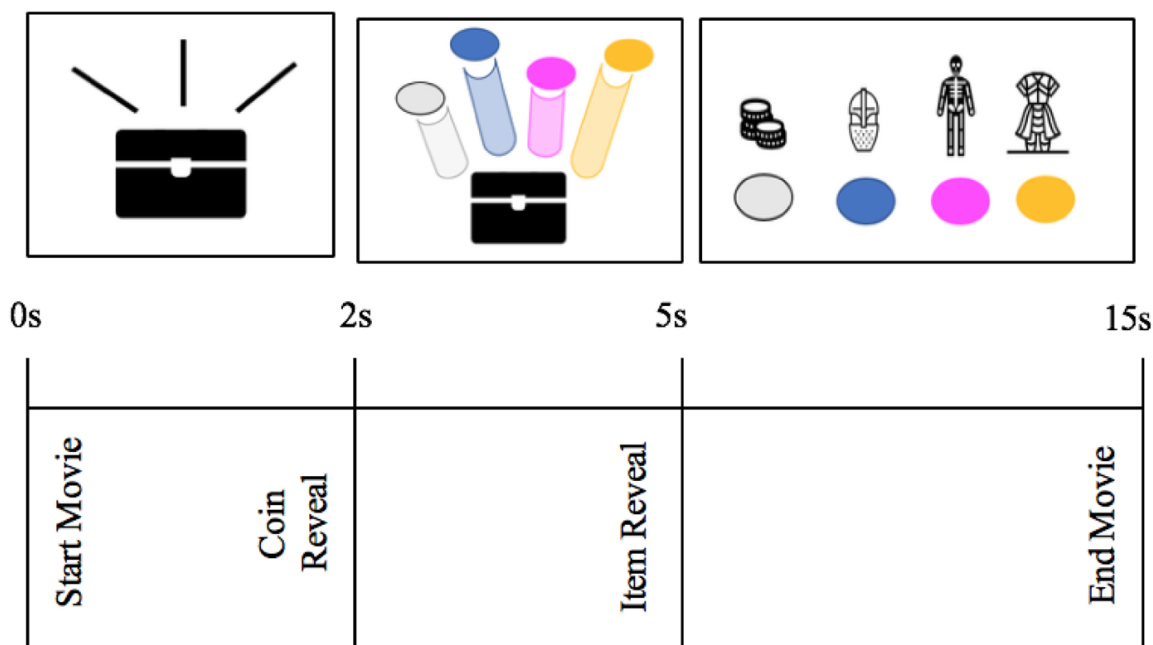


Figure 2. A simplified diagram of the loot box opening movies used in the study conducted by Larche et al.¹²⁸

128. Larche et al., 145.

Young Males are Most Vulnerable

The literature widely agrees that young adults and adolescents are most at risk of developing symptoms of video game addiction. Peeters et al. explain that males are the most probable to exhibit pathological video game behavior within these age demographics.¹²⁹ What is more, Chen, Oliffe, and Kelly observed that males are three times more likely to be addicted than female video game players.¹³⁰ Chen, Oliffe, and Kelly specified how males exhibit more addictive symptoms. Chen, Oliffe, and Kelly explain, “Among the gaming population, compared to females, adolescent and adult males demonstrate far more addictive internet gaming use in terms of screen hours, craving, and negative impacts on health, which have, in isolated incidents, also caused death.”¹³¹

Someone may wonder why males are disproportionately vulnerable to video game addiction. Researchers suggest video game companies primarily design video games for the male mind. Lopez-Fernandez et al. examined the difference between male and female video game players within gaming culture and reported this reality.¹³² Chen, Oliffe, and Kelly support this observation: “Research also indicated that approximately four in five MMORPG players were male. It is important to note that most games on the market are designed by males for males. Indeed, gaming companies target male customers, capitalizing on this strategy to boost sales.

129. Peeters et al., “Normative, Passionate, or Problematic?,” 583.

130. Chen, Oliffe, and Kelly, “Internet Gaming Disorder,” 1154.

131. Chen, Oliffe, and Kelly, 1151.

132. Lopez-Fernandez et al., “Female Gaming, Gaming Addiction, and the Role of Women Within Gaming Culture,” 6–7; Dr Jordan Peterson and Farrell, Dr. Warren, “#47 - Warren Farrell - The Absolute Necessity of Fathers,” <https://www.jordanbpeterson.com/podcast/episode-47/>.

This may partially explain the higher gaming usage in males and men's increased vulnerability to IGD."¹³³

Besides video game companies who engineer video games to appeal to the male mind, Elliott et al. report that males gravitate toward video game genres connected to pathological behavior.¹³⁴ Not only are the genres a factor, but González-Bueso et al. conclude that males generally play video games with different motivations than females.¹³⁵ Chen, Oliffe, and Kelly propose that males tend to play video games based on three factors: achievement, sociability, and immersion, often referred to as escapism.¹³⁶ What is meant by these three factors? Achievement describes how the player prioritizes the pursuit and acquisition of power and status. Sociability describes how the player socializes and forges relationships through the virtual environment of the video game. Immersion, or escapism, describes how the player uses the video game's virtual world to "escape" from real-life stresses and hide in the video game.¹³⁷ In short, this study suggests that if a video game genre provides one or more of these criteria, males flock towards those video game genres.

Alarmingly, research conducted by the RSPH reports that males gravitate towards video game genres that contain loot box mechanics.¹³⁸ Zendle, Meyer, and Over observe that males are

133. Chen, Oliffe, and Kelly, "Internet Gaming Disorder," 1154.

134. Elliott et al., "Video Game Genre as a Predictor of Problem Use," 158.

135. González-Bueso et al., "Association between Internet Gaming Disorder or Pathological Video-Game Use and Comorbid Psychopathology," 2.

136. Chen, Oliffe, and Kelly, "Internet Gaming Disorder," 1154.

137. Chen, Oliffe, and Kelly, 1154.

138. RSPH, "RSPH | Skins in the Game," 19.

more likely to use loot boxes than females,¹³⁹ and the RSPH conclude that males are approximately twice as likely to know about loot boxes than females.¹⁴⁰

On a cultural level, several studies observe that young males are retreating into video games instead of aspiring to other responsibilities typical of previous generations. Chen, Oliffe, and Kelly summarize this cultural shift in young males:

Specifically, today, the majority of young men into their 30s focus on leisure and recreation time in contrast to previous generations in which the majority tended to marry, purchase a home, start a family, and pursue a career in their second and third decade. The trends for the current generation of young men to maintain increased leisure time, amid the rise of the internet are likely strong contributors to the emergence of IGD.¹⁴¹

In summary, Chen, Oliffe, and Kelly report that video games seem to override traditional male goals like pursuing a career, marrying, and raising a family. Twenge describes how young males view work and education: “Low skill working age males below age twenty-five who are nonworkers or not in school are playing video games. It appears that males would rather play video games than work.”¹⁴²

A person may wonder how many hours the average young male plays video games and if that has any connection to video game addiction. Several studies report on the number of hours spent on video games and the implications. Chen, Oliffe, and Kelly report that males generally play video games more often than females.¹⁴³ Admittedly, the statistics on the differential of hours on this subject vary. Typically, young adolescent males spend several hours on video

139. Zendle, Meyer, and Over, “Adolescents and Loot Boxes,” 6.

140. RSPH, “RSPH | Skins in the Game,” 9.

141. Chen, Oliffe, and Kelly, “Internet Gaming Disorder,” 1156.

142. Twenge, *IGEN*, 189–90.

143. Chen, Oliffe, and Kelly, “Internet Gaming Disorder,” 1153–54.

games daily and more than ten hours weekly. Chen, Oliffe, and Kelly further report that young adult males typically spend over four hours playing video games daily and close to thirty hours weekly.¹⁴⁴

While this amount of time is shocking, a prudent observer would avoid jumping to conclusions regarding hours played. Dell’Osso et al. warn against overgeneralizing on this factor: “Time and frequency were not necessarily red flags for PUI [problematic use of the internet], even though adolescents and young adult males, who spend an average of 12 hours per week playing video games, were found to be at higher risk of experiencing problematic and pathological gaming.”¹⁴⁵ While not definitive proof, the number of hours played can serve as a solid indicator of male video game addiction.

An insightful discovery has arisen as to why video game addiction disproportionately affects males. Chen, Oliffe, and Kelly posit that stereotypical male ideals deter males from seeking professional psychological help: “While acknowledging that the emergent nature of men’s IGD and the evidence regards diagnosis and treatment, PCPs [primary care physicians] should consider the ways in which masculine ideals including autonomy, stoicism, strength and competitiveness can predispose men to escape into gaming worlds and fuel their reticence for professional help.”¹⁴⁶ In summary, men may view mental illness as a shameful weakness, and the perceived shame associated with asking for help may deter most men from seeking help.

144. Chen, Oliffe, and Kelly, 1154; Twenge, *IGEN*, 190.

145. Dell’Osso et al., “Managing Problematic Usage of the Internet and Related Disorders in an Era of Diagnostic Transition,” 63.

146. Chen, Oliffe, and Kelly, “Internet Gaming Disorder,” 1157.

Are Females at Risk?

Currently males predominate the video game community, and it is true the current literature suggests that males are more vulnerable to video game addiction than females. However, a prudent observer would also recognize how female video game players are increasingly more common. Contrary to a stereotype of video games being only for males, females are a growing demographic in the video game community. In 2021, the Entertainment Software Association stated that forty-five percent of video game players identify as female.¹⁴⁷ While males are more likely to suffer from video game addiction, females still exhibit some level of risk.

Several studies conclude that certain factors help safeguard females from video game addiction. González-Bueso et al. posit that the video game genres females typically play protect them from video pathology compared to their male counterparts.¹⁴⁸ Lopez-Fernandez et al. explain that most popular games cater to male audiences.¹⁴⁹ Additionally, Lopez-Fernandez et al. cite that females historically felt uncomfortable in video game culture. Lopez-Fernandez et al. write, “Overall, the studies included here indicate that women are less encouraged to participate in playing video games due to negative expectations based on gender or experiences during game play, as well as video games being designed and developed in a way which is less enticing to women, including overly aggressive and sexualized content.”¹⁵⁰

147. Entertainment Software Association, “2021 Essential Facts About the Video Game Industry,” 3.

148. González-Bueso et al., “Association between Internet Gaming Disorder or Pathological Video-Game Use and Comorbid Psychopathology,” 14–15.

149. Lopez-Fernandez et al., “Female Gaming, Gaming Addiction, and the Role of Women Within Gaming Culture,” 11.

150. Lopez-Fernandez et al., 10.

Despite historical trends, Lopez-Fernandez et al. also assert that the female presence in video game culture is beginning to match the male presence.¹⁵¹ Moreover, Lopez-Fernandez et al. observe, “More recent quantitative studies analyzing IGD have found that the prevalence of disordered gaming appears to be more balanced than previous studies.”¹⁵² In essence, the influx of females in video game culture may suggest that they are also susceptible to video game addiction.

Additionally, the female brain may be physiologically more susceptible to video game addiction. In a brain study, Wang et al. observe the physical characteristics of the female brain: “For female IGD subjects, the reduced cortical thickness, combined with the negative correlations of addiction severities, suggests the great effect created by IGD in the brain regions. Males and females may be affected differently by IGD, with females being more vulnerable to it.”¹⁵³

In summary, the current literature suggests that adolescent and young adult males are exceptionally vulnerable to video game addiction. But as more research emerges and video game culture continues to shift to a more balanced ratio of male to female video game players, people would be wise to consider the wellbeing of both males and females—especially considering the corrosive consequences of addictive behaviors.

151. Lopez-Fernandez et al., 9.

152. Lopez-Fernandez et al., 2.

153. Ziliang Wang et al., “Females Are More Vulnerable to Internet Gaming Disorder than Males: Evidence from Cortical Thickness Abnormalities,” *Psychiatry Research. Neuroimaging* 283 (January 30, 2019): 145–53, <https://doi.org/10.1016/j.psychresns.2018.11.001>.

Addiction or Engagement

A person may witness the adverse side effects of video game addiction and wonder if playing video games is even worth the risk. This concern is valid. However, several studies and experts warn against hasty generalization of video game play.

Dell’Osso et al. caution against stigmatizing video game play and even prolonged video game play because of the flaws in diagnostic criteria. Dell’Osso et al. clarify, “Proposed criteria do not probably allow to distinguish an increased but healthy involvement (high engagement) in video games from an excessive and pathological one.”¹⁵⁴

A contributor to the report produced by Bavelier et al., Douglas A. Gentile expresses his misgivings of mislabeling video game engagement for video game addiction: “I began studying the issue of video-game ‘addiction’ because I was highly sceptical of it. I believed that people were misusing the expression to mean ‘spends a lot of time gaming,’ because addictions are not defined by how much one engages in an action (for example, drinking), but by how much it damages one’s life.”¹⁵⁵

Blasi et al. express a similar concern: “One concern arises from the risk of pathologizing healthy, ‘highly engaged’ gamers who could fit the diagnostic criteria for IGD without experiencing significant life impairment.”¹⁵⁶ Moreover, Blasi et al. report improper distinctions of engagement and addiction may hinder progress in research: “Perhaps the greatest challenge facing us right now is the trap of biased and dichotomous thinking. Most people (including many

154. Dell’Osso et al., “Managing Problematic Usage of the Internet and Related Disorders in an Era of Diagnostic Transition,” 63.

155. Bavelier et al., “Brains on Video Games,” 8.

156. Blasi et al., “Problematic Video Game Use as an Emotional Coping Strategy,” 25.

scientists) are either critics or proponents of games and gaming research.”¹⁵⁷ In another study, Yau and Potenza echo a similar sentiment: “Moreover, because engagement in some behaviors with addictive potential is normative and adaptive, individuals who transition to maladaptive patterns of engagement may be considered weak willed and be stigmatized.”¹⁵⁸

In 2021, the APA expresses a similar caution against wrongful distinctions of video game addiction and engagement. The APA explains, “The authors suggest there is an important distinction between passionate engagement (someone enthusiastic and focused on gaming) and pathology (someone with an illness/addiction). Whether the person is distressed with his/her gaming may be the key factor distinguishing the two.”¹⁵⁹

Another consideration comes from Škařupová and Blinka who observe that video game players who exhibit healthy social skills are unlikely to become addicted to video games with social aspects. Škařupová and Blinka clarify, “People with healthy relationship profiles are less likely to develop these problematic patterns of online gaming.”¹⁶⁰

Finally, it is essential to consider video games’ role in the current culture. Society once stereotypically categorized video games as a children’s hobby; now video games generate careers for young people and adults. Considering Twitch and YouTube alone, at least hundreds of thousands of people stream video games and play video games professionally. Some play recreationally, while others make video games a career. Moreover, Yokomitsu et al. report that eSport athletes are seemingly resilient against the addictive aspects of video games like loot

157. Bavelier et al., “Brains on Video Games,” 12.

158. Yau and Potenza, “Gambling Disorder and Other Behavioral Addictions,” 2.

159. American Psychological Association, “Internet Gaming.”

160. Škařupová and Blinka, “Interpersonal Dependency and Online Gaming Addiction,” 113.

boxes: “In other words, the negative relationship between eSports gaming and loot box purchases may be due to eSports gamers playing games in a healthier manner than recreational gamers.”¹⁶¹ That is not to say eSport gamers are immune to mental illness, but that they do have healthier strategies to deal with issues than typical recreational video game players.

Lack of Treatment Options

One consequence of the novelty of video game addiction research is the lack of tested treatment options. In their study on video game and other related addictions, Zajac et al. summarize this difficulty:

Finally, much more research is needed on epidemiology, etiology, risk factors, and outcomes of both IGD and Internet addiction. There has been very little research on the natural progression of these conditions, making it difficult to determine when and how much treatment is necessary to improve upon natural recovery rates. A better understanding of these issues is critical for establishing the efficacy of any intervention.¹⁶²

Overall, researchers observe effective treatments for video game addiction requires additional research.

Petry et al. articulate the collective desire among researchers to understand behavioral addictions like video game addiction.¹⁶³ Yvonne and Potenza report the struggle surrounding video game addiction as a behavioral addiction: “Our understanding of efficacious, well-

161. Yokomitsu et al., “Characteristics of Gamers Who Purchase Loot Box,” 10.

162. Kristyn Zajac et al., “Treatments for Internet Gaming Disorder and Internet Addiction: A Systematic Review,” *Psychology of Addictive Behaviors: Journal of the Society of Psychologists in Addictive Behaviors* 31, no. 8 (December 2017): 16, <https://doi.org/10.1037/adb0000315>.

163. Petry et al., “Internet Gaming Disorder in the DSM-5,” 6.

tolerated pharmacological and behavioral strategies for behavioral addictions lags significantly behind our understanding of treatments for other major neuropsychiatric disorders.”¹⁶⁴

The lack of data regarding video game treatment is not hopeless. Despite the lack of longitudinal data, several studies conducted by Yau and Potenza, Petry et al., Dell’Osso et al., and Zajac et al. consistently report some manner of success in Cognitive Behavioral Therapy (CBT).¹⁶⁵ Yau and Potenza describe the basic thrust of CBT in the context of pathological video game use:

This semistructured, problem-oriented approach focuses, in part, on challenging the irrational thought processes and beliefs that are thought to maintain compulsive behaviors. During therapy, patients learn and then implement skills and strategies to change those patterns and interrupt addictive behaviors. Therapists facilitate the replacement of dysfunctional emotions, behaviors, and cognitive processes through engagement in alternative behaviors and a series of goal-orientated, explicit, systematic procedures. CBT is multifaceted but typically involves keeping a diary of significant events and associated feelings, thoughts, and behaviors; recording cognitions, assumptions, evaluations, and beliefs that may be maladaptive; trying new ways of behaving and reacting (e.g., replacing video-game playing with outdoor activities).¹⁶⁶

Essentially, CBT seeks to adjust the individual’s thoughts that trigger or fuel the video game addiction. Chen, Oliffe, and Kelly report, “The goal of CBT is to identify, analyze, and ultimately change the habitual, unhealthy, and negative cognitions about self, others, and society that contribute to distressing emotional states and problematic behaviors.”¹⁶⁷

Although CBT is the most positively documented type of video game disorder treatment, Chen, Oliffe, and Kelly observe other effective treatment options. However, the efficacy results

164. Yau and Potenza, “Gambling Disorder and Other Behavioral Addictions,” 13.

165. Yau and Potenza, 11; Petry et al., “Internet Gaming Disorder in the DSM-5,” 6; Dell’Osso et al., “Managing Problematic Usage of the Internet and Related Disorders in an Era of Diagnostic Transition,” 64; Zajac et al., “Treatments for Internet Gaming Disorder and Internet Addiction,” 7.

166. Yau and Potenza, “Gambling Disorder and Other Behavioral Addictions,” 11.

167. Chen, Oliffe, and Kelly, “Internet Gaming Disorder,” 1156.

are inconclusive and not universally recommended as treatments.¹⁶⁸ Adding to the frustration of discovering treatments for video game addiction, Yau and Potenza observe in young people with video game addiction that impairment can be transient with age and maturity.¹⁶⁹

Another consideration for treatment revolves around dealing with certain aspects of video games like loot boxes which link to pathological behavior. Yokomitsu et al. express a desire for more data regarding dealing with such mechanics in modern video games: “Therefore, to develop effective cognitive behavioral interventions focused on gamer’s loot box use, more research is needed on the cognitive, affective, and behavioral processes that are associated with loot box engagement and spending money on loot boxes.”¹⁷⁰ This desire is understandable because of the recency of loot boxes in video games and the resultant lack of research.

As an unseen benefit, Zajac et al. report marginal success in treating video game addiction when the comorbidity of mental illness is appropriately resolved. Nevertheless, these results remain inconclusive.¹⁷¹

A Lack of Christian Sources

A pastor searching for resources on video game addiction may struggle to find credible or Christian resources. Of course, a pastor may search the Internet and find several articles, blogs, or online communities on websites like Reddit which discuss video game addiction and how to

168. Chen, Oliffe, and Kelly, 1156.

169. Yau and Potenza, “Gambling Disorder and Other Behavioral Addictions,” 12–13.

170. Yokomitsu et al., “Characteristics of Gamers Who Purchase Loot Box,” 11.

171. Zajac et al., “Treatments for Internet Gaming Disorder and Internet Addiction,” 14.

treat it. A pastor may even see professional counselors offer online assistance for video game addiction like, INTENTA's "Gaming Disorder Training" course¹⁷² or psychologist Alok Kanojia's program on Healthygamer.gg.¹⁷³

The current scarcity of credible sources limits discussion on video game addiction treatments. Moreover, most credible sources approach therapy from a non-Christian perspective. A pastor may discover some books that address video game addiction through a biblical lens. For example, Tim Clinton and Eric Scalise authored the book *The Quick-Reference Guide to Addictions and Recovery Counseling: 40 Topics, Spiritual Insights, and Easy-to-Use Action Steps* that offers some biblical guidance to video game addiction. However, a Confessional Lutheran pastor may not entirely agree with their biblical approach and the approach other sources advocate. In short, Christian resources on video game addiction are the exception, not the rule, in the emerging health concern of video game addiction.

172. "Gaming Disorder Clinical Training," INTENTA, <https://intenta.digital/training/gaming-disorder-clinical-training/>.

173. "Mental Health for the Internet | Healthy Gamer," <https://www.healthygamer.gg/>.

WHAT DOES VIDEO GAME ADDICTION MEAN FOR THE CHURCH?

An Emergent and Serious Issue

It is understandable if many Christians and pastors are unaware of the intricacies of video game addiction and the full range of its adverse consequences. Researchers and professional counselors continue to refine the definition of video game addiction, while research continues to develop effective treatment techniques.

With the lack of diagnostic criteria from the DSM-5, the research in most of the past decade or so has lacked uniformity. Even with the ICD-11 official classification in 2018, longitudinal data for video game addiction and treatments remains lacking. In recent years, governments in Europe and Asia have recognized the seriousness of video game-related disorders as a critical issue. Chen, Oliffe, and Kelly observe, “IGD, however, is undeniably a serious emergent problem, likely underreported and underestimated in clinical practice.”¹⁷⁴ Awareness of video game addiction increases but remains inadequate.

As a result of this general lack of awareness, a pastor and his congregation may be unprepared and unequipped to address video game addiction in the church. For instance, pastors or Christians may wrongly demonize or stigmatize video games with too broad a brush. On the one hand, this could potentially ostracize video game enthusiasts from the church. On the other

174. Chen, Oliffe, and Kelly, “Internet Gaming Disorder,” 1152.

hand, Christians who suffer from video game addiction and use video games as a maladaptive coping strategy could feel uncomfortable seeking spiritual support with this problem.

Video game addiction is severe and requires a tactful approach to address it. Despite video games serving other helpful purposes, Chen, Oliffe, and Kelly report the dire consequences video game addiction share with other addictions: “If left untreated, IGD can lead to detrimental psychosocial impacts, affecting gamers and their families.”¹⁷⁵ Video game addiction adversely affects the individual and, equally regrettably, those around them.

Besides the psychological issues, the detrimental effects of video game addiction can also affect a Christian’s life. This includes a Christian’s life of sanctification. Within sanctification lies vocation, or what God entrusts the Christian to manage. The video game developer Erin Hoffman commented on video game addiction’s impact on a person’s ability to function: “Addiction is not about what you DO, but what you DON’T DO because of the replacement of the addictive behavior.”¹⁷⁶ In a Christian’s life, addictions, including video game addictions, can impair their health, their life of sanctification, and their God-given vocations in numerous ways.

Young Males Escape into Video Games

A pastor may wonder who among his flock are most vulnerable to video game addiction. The current literature suggests adolescent and young adult males are disproportionately vulnerable to

175. Chen, Oliffe, and Kelly, 1158.

176. Erin Hoffman, “Life, Addictive Game Mechanics, And The Truth Hiding In Bejeweled,” Game Developer, September 17, 2009, <https://www.gamedeveloper.com/disciplines/life-addictive-game-mechanics-and-the-truth-hiding-in-bejeweled>.

video game addiction. Some males use their video game consoles, computers, or the phone in their pocket as an escape hatch from problems in life.

The literature supports that males are most at risk. However, a prudent pastor would consider the potential risk of video game addiction for females. Females are not currently the most at risk, but that trend could change. In 2021, the ESA reports the current trend of the ratio of male to female video game players progresses further to an even distribution.¹⁷⁷ Moreover, Lopez-Fernandez et al. report more recent and evenly distributed studies have observed equitable results of video game pathology in male and female video game players.¹⁷⁸

Males who exhibit video game addiction symptoms often use video games to escape from emotional stress or comorbidities like depression and anxiety. In other words, young males who exhibit symptoms of video game addiction may self-medicate their psychological problems with video games instead of seeking healthy alternatives or treatments. Alternatively, males could develop other mental illnesses because of the mechanics of video games in the forms of predatory behavioral psychology like loot boxes.

A pastor may wonder what makes video games so attractive to young males. Several studies report the content and genre often appeal to the male mind. Other studies report video games with integrated social features or interactions can provide a social haven for males with social deficiencies. Moreover, Peterson explains that young males gravitate toward video games because video games stimulate a swift dopaminergic high in the brain which other activities fail

177. Entertainment Software Association, "2021 Essential Facts About the Video Game Industry," 3.

178. Lopez-Fernandez et al., "Female Gaming, Gaming Addiction, and the Role of Women Within Gaming Culture," 2.

to replicate.¹⁷⁹ In other words, males feel more neurologically rewarded playing video games than most activities.

What does this mean for the church and specifically the men and boys? Practically speaking for pastors, the current and next generation of men in the church might exhibit symptoms or suffer from video game addiction.

Because of the impairment associated with addictions, video game addiction may become a source of daily hardship for the men who suffer from it and their families and friends. Because of video games, men may seek to escape from life, responsibilities, and even God. As a result of a warped neurological preference towards playing video games over other activities, video game addiction may hinder the desire for men to partake in tasks and roles in the church. Moreover, addiction may interfere with or disqualify those men from taking leadership positions in the church.

Manipulative Monetization Tactics

A pastor needs awareness of the current threats facing his flock so he can offer proper spiritual guidance according to God's Word. A modern threat video game players face globally is predatory and manipulative forms of monetization.

On the one hand, video game companies are a business, and turning a profit is a reasonable goal for any business to have. On the other hand, the methods video game companies employ to turn a profit fall into an ethical debate. In the past fifteen years or so, video monetization has rapidly evolved. In recent years, video game companies have integrated an

179. Peterson and Farrell, Dr. Warren, "#47 - Warren Farrell - The Absolute Necessity of Fathers."

insidious monetization tactic integrated with an increasing number of modern video games. This tactic is colloquially referred to as loot boxes or gacha games.¹⁸⁰ The Children’s Commissioner summarizes the impact these monetization tactics have on video game players:

The most dominant of these are in-game purchases, also known as micro transactions. For many games, purchasing or obtaining the base-level game only unlocks a fraction of the gaming experience, with the option to spend more to improve gameplay. In some cases, these extras can also be earned without spending money, but this often takes considerable time. In-game purchases may enhance the look of a character (for example, clothing or cosmetics), give you an advantage in the game (for example, weapons or characters), or allow you to progress in the game by using real money or that which is earned in-game. These extra purchases are increasingly common across paid-for games and are vital to how ‘free to play’ (F2P) games make money. These games allow players to access a large proportion of the game for free but make money through advertising or by including extra paid-for items.¹⁸¹

In essence, the Children’s Commissioner reports how modern video game monetization tactics seeks to leverage personal enjoyment in a video game to coax the player to spend money. Video game companies aim to ensnare impressionable video game players to spend even more money.

A pastor may wonder how monetization tactics like loot boxes, which are essentially gambling, can even exist in video games that are not age restricted. In 2019, Larche et al. report this alarming concern: “Another key regulatory discrepancy between games with loot boxes and gambling involves strictly enforced age regulations. Our results support the need for such age regulations for users under the legal gambling age.”¹⁸²

Some pastors may be aware that video games have a rating system to curb younger people from engaging with age-restricted content and inform parents what kind of content is in

180. Historically, gacha games derive their name from Gachapons in Eastern markets. Gachapons are toy dispensers where a person pays to receive a random item in a capsule. The surprise of what the person gets is part of the experience. Typically, a gacha game is a free-to-play mobile game where randomized loot box like mechanics is the primary mode of monetization.

181. Children’s Commissioner, “Gaming the System,” 7.

182. Larche et al., “Rare Loot Box Rewards Trigger Larger Arousal and Reward Responses, and Greater Urge to Open More Loot Boxes,” 161.

those games. The unfortunate truth is the current age rating system is ineffective in warning against loot box gambling mechanics in video games. To be fair, the Entertainment Software Rating Board (ESRB) does warn players of the possibility of in-game purchases in a video game. Nevertheless, even this measure is not entirely helpful, for two key reasons.

The first reason is that the ESRB's definition of "in-game purchases" is too broad. "In-game purchases" include paid options like loot boxes and downloadable content (DLC) — which are essentially on opposite sides of the spectrum of in-game purchases. Traditionally, DLC is not random like loot boxes, and video game companies often sell DLC at a fixed price where the video game player knows exactly what they are getting. So, when a parent reads the label of the game their child wants and sees the ESRB disclaimer "in-game purchases," the parent would not know if the game has loot boxes or DLC.

The second reason lies in the ESRB's inconsistency in defining video game gambling. Because the United States of America currently does not legally recognize video game loot boxes as gambling, the ESRB is not legally obligated to label video games with loot box mechanics as "A: Adults Only." This age rating is for eighteen-year-olds and above because they contain graphic adult content like graphic violence, sex, gambling, or simulated gambling.¹⁸³ Video game companies have a personal stake in avoiding their game receiving an "A: Adults Only" because that rating would drastically decrease the game's potential audience and any subsequent revenue for the game. In summary, a pastor, a parent, or a video game player cannot solely rely on the current ESRB rating system alone to determine if a video game contains addictive gambling monetization tactics.

183. Entertainment Software Ratings Board, "Ratings Guides, Categories, Content Descriptors," ESRB Ratings, <https://www.esrb.org/ratings-guide/>.

THE ROLE OF THE COUNSELING PASTOR

Attitude towards Christians Receiving Professional Counseling

A pastor's role in helping Christians deal with mental health issues is invaluable. A pastor's expertise rests in communicating truths of Scripture but typically not in treating mental health illnesses like addictions. However, a pastor can help those suffering from video game disorders through his encouraging attitude toward Christians receiving professional counseling.

A prudent pastor avoids stigmatizing Christians receiving professional counseling for mental illnesses. This truth is especially applicable to men. After all, the literature indicates males are predisposed to avoid asking for help regarding mental health. Chen, Oliffe, and Kelly encourage primary care physicians (PCP) to prevent stigmatization:

It is crucial for PCPs to first acknowledge the negative feelings that men may associate with needing professional help for a problem they cannot independently solve. By taking this step, PCPs can help to de-stigmatize men's help-seeking and direct them toward effective self-management. Also, since men often tend to be goal- and solution-focused, PCPs should utilize direct and action-oriented approaches to guide men's treatment plans. In other words, it is important for PCPs to clearly identify a problem and positively outline a solution plan and goal for men.¹⁸⁴

While a pastor is not a PCP in the medical sense, he is a primary point of contact for many who need professional counseling. Moreover, a pastor can avoid the stigmatization of Christians receiving professional counseling. Christians are God's beloved children, but sin still corrupts this world, and this corruption includes mental illnesses. As a spiritual leader, a pastor can

184. Chen, Oliffe, and Kelly, "Internet Gaming Disorder," 1157.

encourage his members, including males, to not be ashamed to seek out professional help by the messages he communicates in his preaching, teaching, counseling, and personal interactions.

The Three Rs of the Counseling Pastor

Pastors are typically not qualified to treat video game addiction, and a prudent pastor knows his limitations, lest he should harm more than heal.¹⁸⁵ Even when the professional counselor does Christian counseling,¹⁸⁶ a pastor can provide invaluable spiritual assistance for the Christian suffering from video game addiction.

Professor of Pastoral Theology John D. Schuetze encourages counseling pastors¹⁸⁷ to practice the three Rs when they sense they may be dealing with a counseling situation beyond their competency. *Refer, refer, refer* to a professional.

A pastor may not be capable of administering treatment, but he can refer the Christian suffering from video game addiction to a competent counselor who can help. A video game addiction specialist would be ideal, however, the recency of video game addiction as a disorder may make finding a competent specialized counselor difficult.

A pastor may feel guilty to refer one in his flock to another source of counseling. The counseling pastor does not need to feel guilty in this matter. A counseling pastor does not surrender his role of healing spiritual wounds with God's Word by referring to a professional

185. John D. Schuetze, *Doctor of Souls: The Art of Pastoral Theology* (Milwaukee, Wisconsin: Northwestern Publishing House, 2017), 267.

186. Schuetze, 269.

187. For more detailed information about the counseling pastor in general, consult *Doctor of Souls* by John D. Schuetze. This section of the paper will present pertinent information about the counseling pastor helping a Christian with video game addiction and the associated comorbidities.

counselor. He will strive to work simultaneously with the professional counselor to offer the appropriate spiritual care at the proper time in the healing process.

A counseling pastor may wonder what professional counselors he needs to seek out for a video game addiction referral. Currently, in the United States there are few dedicated options for treating video game addiction, with only some treatment centers scattered across the country. Despite the limited treatment options, the current literature reports Cognitive Behavioral Therapy has produced the most success in video game addiction treatment. A pastor who suspects individuals or families in his congregation could face video game addiction would be wise to seek a professional counselor specializing in this type of therapy. Alternatively, a pastor could seek a counselor specializing in treating addictions in general.

The counseling pastor wisely considers potential comorbidities associated with video game addiction during the referral process. The literature suggests that video game addiction often connects to other mental illnesses. A prudent pastor would seek out competent counselors regarding the typical comorbidities of depression, anxiety, ADHD, social phobias, and impulse control disorder. Moreover, with the influx of loot box mechanics in video games, a pastor may be wise to connect with a gambling addiction counselor.

Counseling Considerations of Video Game Addiction

It is worth mentioning that the counseling pastor will be quick to listen and slow to speak, and that listening is one of his most robust tools. Listening may establish rapport and discover vital information to help heal. For instance, the counseling pastor may try to understand why this Christian plays video games or determine how video games have impaired their life. Consult the

appendix for example questions that a counseling pastor can use to guide the conversation and clarify the nature of their video game addiction.

Because mental health is complex, the counseling pastor must remember certain considerations during counseling. One consideration is to recognize the possibility that surface issues mask core issues.¹⁸⁸ Video game addiction and its associated comorbidities may mask the real problems in the Christian's life. If a pastor can help the Christian stop pathological video game behavior but fail to address the core issues, the Christian may resort to another maladaptive coping mechanism.¹⁸⁹

Another consideration for the counseling pastor is the presence of these comorbidities and maladaptive coping mechanisms linked to video game addiction. Based on the research, Christians who suffer from video game addiction may experience stress, unresolved trauma, or a type of mental illness. These may have pushed them to "self-medicate" video games as a maladaptive coping mechanism.

Basic counseling principles also play a role here. One principle is confidentiality. Given the potentially sensitive core issues causing video game addiction, the counseling pastor needs to establish trust with the Christian and maintain confidentiality.¹⁹⁰ However, the pastor serves multiple roles in a congregation, and these distinct roles may make certain Christians less or more likely to ask the pastor for help.¹⁹¹

188. Schuetze, *Doctor of Souls*, 284.

189. Schuetze, 284–85.

190. Schuetze, 272.

191. Schuetze, 271–72.

On a related note, the literature indicates that it is predominately adolescents or young adults who suffer from video game addiction. If a case where the stress or trauma occurred due to child abuse, the pastor may need to break confidentiality and report the abuse to the appropriate government officials for the child's wellbeing.¹⁹²

Another consideration is the potential difficulty in communicating with the Christian suffering from video game addiction. The counseling pastor would be wise to take the observations posed by Clinton and Scalise to heart. They suggest that individuals suffering from video game addiction often lack social and communication skills.¹⁹³ As a result, this could mean the pastor experiences awkward social interactions with the Christian, and the pastor will need to work through these social interactions patiently during counseling.

A third consideration is the practical difficulty of dealing with video game addiction. Clinton and Scalise report seemingly essential devices may make treatment difficult because of the pervasiveness of these devices.¹⁹⁴ The presence of computers, smartphones, and tablets is increasingly common and necessary for school and work environments. This observation underscores the practical difficulties of recommending total and immediate abstinence from video games. Personalized video game regulations or restrictions may be a more realistic alternative to abstinence.

A final consideration is the impact of the neurological responses associated with video game addiction. Clinton and Scalise report video game addiction connects to the euphoric feeling

192. Schuetze, 272–74.

193. Timothy E. Clinton and Eric Scalise, *The Quick-Reference Guide to Addictions and Recovery Counseling: 40 Topics, Spiritual Insights, and Easy-to-Use Action Steps* (Grand Rapids: Baker Books, 2013), 213.

194. Clinton and Scalise, 213.

caused by the release of dopamine and endorphins.¹⁹⁵ Correspondingly, Peterson observes that this neurological response produced by video games comes considerably easier and quicker in video games than in many other real-world tasks.¹⁹⁶ This consideration underscores the difficulty of quickly altering the behavior of those with video game addiction and reminds a pastor to be patient and anticipate the healing to be a process accompanied by trial and error.

Video Game Addiction and Christian Identity

The counseling pastor is aware that mental illness may begin to overrun a Christian's sense of identity. Video game addiction and its comorbidities may disrupt the Christian's perception of self as a beloved and redeemed child of God.¹⁹⁷ The Christian may perceive their addiction, and everything connected to it, as something that defines them and their worth before others and God. The counseling pastor understands a Christian's struggle against video game addiction may be a cross they need to bear, but that they are still a child of God.

Schuetze explains a Christian's identity may affect six areas of a person's life (see figure 3).¹⁹⁸ These areas are summarized by the letters *A, B, C, D, E,* and *V*: "A: Affect (our emotions and mood); B: Behavior (our actions, why we do what we do); C: Cognitions (our thoughts, our outlook on life); D: Desires (our volitions, what we want or don't want); E: Experiences (how we view what happens to us in life); and V: Vocations (our roles and relationships)."¹⁹⁹

195. Clinton and Scalise, 214.

196. Peterson and Farrell, Dr. Warren, "#47 - Warren Farrell - The Absolute Necessity of Fathers."

197. Schuetze, *Doctor of Souls*, 285.

198. Schuetze, 285.

199. Schuetze, 285.

MY LIFE AS A CHILD OF GOD

ABCDE - IV

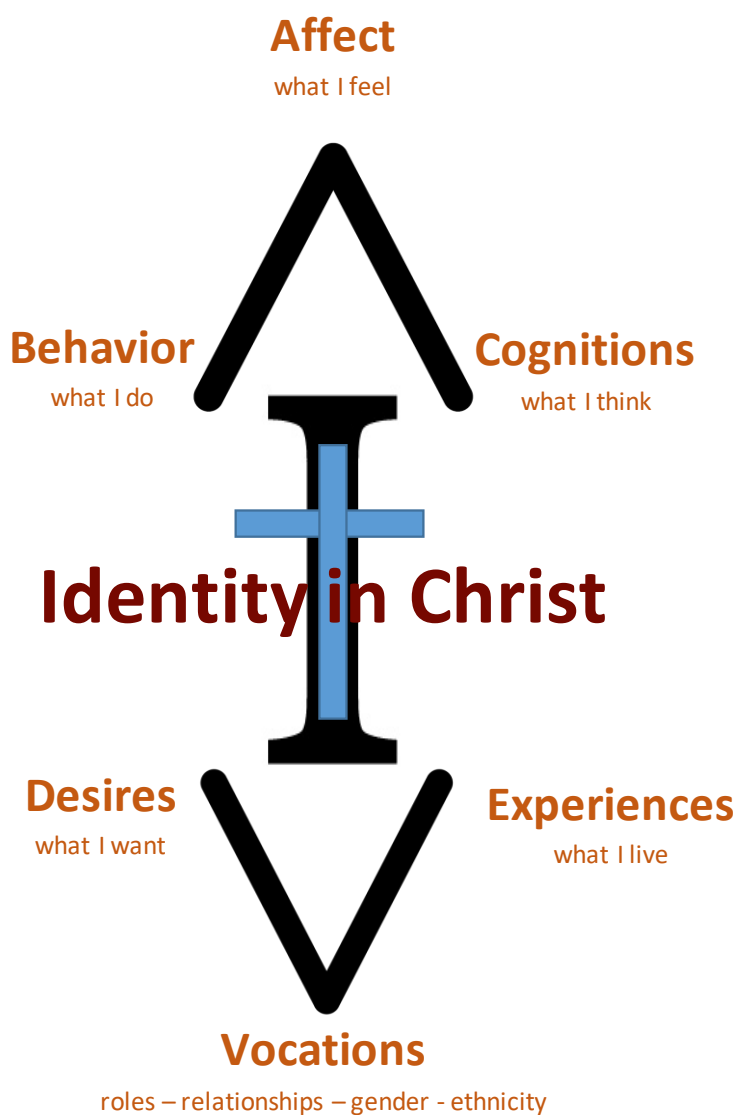


Figure 3. A diagram of a healthy Christian's identity in Christ. Christ influences a Christian's affect, behavior, cognition, desires, experiences, and vocations.²⁰⁰

200. Schuetze, 287.

In the spiritually healthy, a Christian's identity rests in Christ, and Christ will define these six areas. However, sin remains in this world and continues to afflict people.²⁰¹ Because of this reality, the Christian may confuse the entirety of their video game addiction as the foundation for their identity. For instance, instead of identifying as a beloved and redeemed child of God who struggles against video game addiction, the Christian identifies as a video game addict—an addict who has no friends, spends thousands of dollars chasing rare items in loot boxes, and feels like everything in life apart from video games is pointless. They might internally identify themselves in such a way, "I am a depressed video game addict."

A counseling pastor seeks to help the Christian find their worth in Christ and not in the results of sin,²⁰² such as in video game addiction and its associated comorbidities. A counseling pastor considers the Christian suffering from video game addiction may improperly define their identity from the externals like video game addiction instead of their Christ. A counseling pastor guides the Christian to find their value in Christ, who loves them and has forgiven even their sins linked to their video game addiction.

201. Schuetze, 286.

202. Schuetze, 288.

THE REPENTANCE MODEL

Repentance Model Overview

A pastor may not be qualified to deal with behavioral addictions, or the comorbidities associated with video game addiction. In that case, a prudent pastor avoids violating his boundaries of competence. However, God’s Word equips a pastor to administer spiritual care for the Christian that professional counseling cannot offer. A pastor seeks to employ the repentance model²⁰³ developed by Alan Siggelkow and taught at Wisconsin Lutheran Seminary.²⁰⁴

The repentance model is a simple model a pastor can lean on in spiritual counseling situations, including scenarios with video game addiction. The repentance model comprises four key elements.

The first key element is objective justification. This element reminds the Christian of the soothing gospel message that Christ has died for their sins. It establishes both hope and a focus on the gospel message. Specifically, it creates a tone of hope for the outcome of addressing the sins associated with video game addiction and its comorbidities.²⁰⁵ The second key element is specific law. This element addresses the specific sins in the Christian’s situation of video game addiction and its comorbidities.²⁰⁶ The third key element is specific gospel. This element

203. Schuetze, 287–91.

204. Schuetze, 287.

205. Schuetze, 288.

206. Schuetze, 288–89.

declares the soothing truth of God’s grace and forgiveness found only in Christ. Christ endured excruciating anguish to forgive their sins. It makes the forgiveness of sins personal. In other words, even the Christian who suffers from video game addiction is a forgiven and beloved child of God.²⁰⁷ The fourth key element is specific fruits of repentance or change in the Christian’s life.

Objective Justification

The counseling pastor will initiate his counseling by establishing a tone of forgiveness and hope. Make it personal. Let them know this forgiveness and hope is for them from their loving God. For instance, “Jesus died for *you*. Yes, even *you* who suffers from video game addiction. Yes, even *you* who suffers from video game addiction and depression.”

Specific Law

The counseling pastor is keenly aware that sinful behaviors, especially in the cases of mental disorders, might be a maladaptive coping mechanisms for some underlying issue. This reality will not excuse the pathological behavior, but it does help the pastor focus on the sinful core issues at play.²⁰⁸ A pastor will do well to distinguish between the sins committed against the Christian suffering from video game addiction and the Christian’s personal sins involved in video game addiction.

207. Schuetze, 289–90.

208. Schuetze, 288–89.

Sins Committed Against the Christian

Some of the sins committed against the Christian could be forms of trauma. Trauma may have disrupted the Christian's life in such a way that it shatters their sense of safety, control, and hope. It could be trauma from a relationship, trauma from a natural disaster, or even trauma produced from extreme circumstances like the COVID-19 pandemic and lockdowns. They may be suffering from excessive stress or other comorbidities like depression and anxiety. Another sin against the Christian could be the exploitative game design and monetization tactics video game companies employ to manipulate players.

Sins Done by the Christian

A counseling pastor will acknowledge these sins committed against the Christian who suffers from video game addiction. However, he will still address their personal sins. The magnitude of specific sins depends on the situation's circumstances, but this section offers some examples.

Christian Freedom

Video games fall under the category of Christian freedom, but the counseling pastor may express how the apostle Paul warns against this freedom enslaving Christians to sinful actions. Paul wrote in 1 Cor 6:12, "I have the right to do anything,' you say—but not everything is beneficial. 'I have the right to do anything'—but I will not be mastered by anything." Video games are harmless, even helpful in moderation. However, when video games mutate into the Christian's master, they become an addiction—they become a sin. Christian freedom does not justify such sinful behaviors.

Self-Control

Moreover, the counseling pastor may express how God warns against a lack of self-control. Paul in Gal 5:22–23 reminds Christians that self-control is a fruit of the Spirit, and the Proverbs remind Christians of the dangers of lacking self-control. For instance, Prov 25:28 expresses, “Like a city whose walls are broken through is a person who lacks self-control.” The person who lacks self-control is defenseless. Christians who fail to control their impulses to play video games may be unaware of how severely video games control their life.²⁰⁹

Video Games and Heavenly Matters

The counseling pastor may highlight the type of thoughts a Christian strives to have. In Phil 4:8, Paul also reminds Christians to focus their thoughts on heavenly matters. Thoughts of video games “pale in comparison to the things that are heavenly.”²¹⁰

Lying

The counseling pastor may need to address the sin of lying. John 8:44 reminds Christians that lying is the devil’s native tongue. It is typical for those who suffer from video game addiction to lie about their behavior.²¹¹ Perhaps the Christian lied to play more video games or to hide how

209. Clinton and Scalise, *The Quick-Reference Guide to Addictions and Recovery Counseling*, 217.

210. Clinton and Scalise, 216.

211. American Psychological Association, “Internet Gaming.”

much time or money they spend on video games. Lying to cover up an addiction or perpetuate a sinful behavior is a sin.

Stewardship

The counseling pastor may highlight how the Christian's video game addiction causes sin against godly stewardship principles. God entrusts the management of specific blessings to Christians, and Christians who suffer from video game addiction may lack proper stewardship practices. The most common stewardship lapses for the Christian who suffers from video game addiction would be in the areas of time, treasure, talents, temple, and vocation.

Time

The apostle Paul reminds Christians in 1 Cor 10:31 to glorify God with everything we do: "God entrusts us with time on the earth as a gift. As stewards of this gift, we are to use our time to serve God and one another."²¹² A Christian sins when he spends excessive hours playing video games per week to the neglect of serving God and others.

Treasures

God has blessed people with material blessings. Considering the parable in Matt 25: 14–15, God entrusts people with varying amounts of material wealth and encourages humble hearts and generous giving with what each person possesses.²¹³ However, material discontent and greed

212. Schuetze, *Doctor of Souls*, 313.

213. Schuetze, 314.

may seep into the heart of the Christian suffering from video game addiction. It may manifest in video game-related purchases like a myriad of microtransactions or gratuitous gambling via loot boxes.

In connection with stewardship of treasures, a counseling pastor may need to address Christian gambling principles regarding video game loot boxes. Gambling for a Christian is not inherently sinful,²¹⁴ and God has given us resources for recreation and relaxation.²¹⁵ However, the counseling pastor is wise to assess if the potentially addictive behavior of gambling is impairing their life and Christian judgment.

If the Christian spends money on loot boxes, the pastor would be wise to investigate and find answers to these questions:

1. “Is this person spending money on loot boxes out of greed or covetousness?”
2. “Does this person appear to mismanage their money or be aware of the potential for gambling to encourage mismanagement of possessions?”
3. “Does their loot box purchase suggest they are using gambling to feed an internal hunger for something instead of relying on God to cure that hunger?”
4. “In cases where loot box contents can be ‘cashed-out’, is the person undermining biblical ethics of productive work?”
5. “Is the person aware this behavior is addictive?”

214. “Gambling: A Report of the Commission on Theology and Church Relations of The Lutheran Church - Missouri Synod,” February 1996, 13–14.

215. Schuetze, *Doctor of Souls*, 317.

6. “While gambling is within Christian freedom, does their behavior hinder their ability to help others and show others love?”²¹⁶

If the pastor senses the answers to these questions are “yes,” the Christian may be using gambling sinfully.

Talents

Another way God blesses Christians is through their talents and abilities to do work and make a living. Again, God gives people different skills and abilities. A Christian who suffers from video game addiction may have started video games because they thought they could not succeed in education or the workforce, and video games might have been a quick fix to the struggle of work in life.²¹⁷ This scenario may explain the cause, but it does not excuse the Christian from misusing his God-given talents and abilities through lack of application in school and work.

Temple

As the apostle Paul said in 1 Cor 6:19–20, God has made Christian bodies his temple. God has created and redeemed us, so we are his.²¹⁸ Paul commanded Christians to honor God with their sanctified bodies.

216. “Gambling: A Report of the Commission on Theology and Church Relations of The Lutheran Church - Missouri Synod,” 6–9, 11.

217. Peterson and Farrell, Dr. Warren, “#47 - Warren Farrell - The Absolute Necessity of Fathers.”

218. Schuetze, *Doctor of Souls*, 315.

A Christian who suffers from video game addiction may have sinned against their body physically through a lack of sleep, diet, exercise, and personal hygiene.²¹⁹ While not true in every case, some Christians suffering from video game addiction are aware their video game use damages them.²²⁰ This willful endangerment to the Christian's health is a sin.

Vocation

God has entrusted all Christians with specific roles and responsibilities. Schuetze asserts, "It is through the many and varied roles and relationships we have in life that we are able to be good stewards of all that God places into our care. As Jesus explained, 'Whatever you did for one of the least of these brothers and sisters of mine, you did for me' (Mt 25:40)."²²¹ Christians who suffer from video game addiction may have lapsed in their roles and responsibilities, and some lapses may manifest in their neglect of their families like their spouse and children.

Specific Gospel

The comfort and forgiveness found in the gospel message might be seldom found in the mind of a Christian who suffers from video game addiction and the associated comorbidities. A pastor will consider his context and determine what passages of God's Word will effectively illustrate how Christ died for even their specific sins of video game addiction. The specific gospel aims to remind the Christian of their identity in Christ. Again, make it personal. For example, "Make no

219. Clinton and Scalise, *The Quick-Reference Guide to Addictions and Recovery Counseling*, 213.

220. American Psychological Association, "Internet Gaming"; "ICD-11 - ICD-11 for Mortality and Morbidity Statistics."

221. Schuetze, *Doctor of Souls*, 326.

mistake, Jesus took away *your* sins. *You* are a redeemed child of God!” This section offers some Bible passages a counseling pastor may consider using to comfort the Christian suffering from video game addiction.

Gospel Examples

The apostle Paul reminds Christians in Eph 2:8–9 that God’s grace saves them apart from their works. “For it is by grace you have been saved, through faith—and this is not from yourselves, it is the gift of God—not by works, so that no one can boast.”

In Isa 53:5, the prophet Isaiah expresses how Jesus suffered and paid for people’s sins: “But he was pierced for our transgressions, he was crushed for our iniquities; the punishment that brought us peace was on him, and by his wounds we are healed.”

In Romans 5:8–9, the apostle Paul reminds the Christian of God’s love for them through Christ: “But God demonstrates his own love for us in this: While we were still sinners, Christ died for us. Since we have now been justified by his blood, how much more shall we be saved from God’s wrath through him!”

The writer to the Hebrews assures Christians that God has forgiven their sins. Moreover, God also will not hold their sins against them as recorded in Heb 8:12: “For I will forgive their wickedness and will remember their sins no more.”

In Ps 103:12, the Psalm writer reminds Christians that God has removed their sins from them: “as far as the east is from the west, so far has he removed our transgressions from us.”

In Mark 2:17, Jesus says he came to save the spiritually sick, not the spiritually fit. “On hearing this, Jesus said to them, ‘It is not the healthy who need a doctor, but the sick. I have not come to call the righteous, but sinners.’”

Fruits of Repentance

A counseling pastor will seek to emulate how the apostle Paul felt in 2 Cor 7:9 where he writes “yet now I am happy, not because you were made sorry, but because your sorrow led you to repentance. For you became sorrowful as God intended and so were not harmed in any way by us.” A counseling pastor rejoices when a Christian’s faith in God leads them to abandon sin and rush back to God in repentance. Their identity is in Christ, influencing their affect, behavior, cognition, desires, experiences, and vocations. Faith fuels change, which is a result or fruit of repentance.

With the primary goal of the repentance model accomplished, the counseling pastor will help the repentant Christian who suffers from video game addiction find ways to live according to God’s calling for his children. However, a pastor understands fruits of repentance are part of the ongoing sanctification in a Christian’s new life. The counseling pastor anticipates the possibility of relapses into sin.

Christian Freedom

Even under the category of Christian freedom, the repentant Christian who suffers from video game addiction will understand that playing video games which result in addictive behavior is a sin. The Christian recognizes video games have mastered them and harmed their body and mind. Video game addiction may have hindered their heavenly and earthly relationships. The Christian will seek out changes to avoid this temptation. For example, the Christian may reduce the time

they play video games or stop altogether. They may seek professional counseling or have an accountability partner to help them avoid a relapse into video game addiction.²²²

Heavenly Matters

Thoughts on heavenly matters are another potential fruit of repentance. The repentant Christian who recognizes video games have clouded his mind from heavenly matters will seek to divert time away from video games and devote thoughts toward heavenly matters. This fruit of repentance can manifest itself in many forms. For example, the Christian could trade an hour of video games a week for an hour of devotional reading.

Self-Control

Self-control is another potential fruit of repentance. The repentant Christian who understands how their lack of self-control may have contributed to their video game addiction will strive to match the fruit of self-control Paul mentions in Gal 5:22–23. The Christian will seek to temper their urges to play video games in excess.

Lying

Addressing lying might be a fruit of repentance. The repentant Christian will take to heart how Prov 12:22 reminds Christians God delights in trustworthy people. The Christian who suffers from video game addiction may lapse into lying or hiding their behavior. Nevertheless, the

222. Clinton and Scalise, *The Quick-Reference Guide to Addictions and Recovery Counseling*, 215–16.

Christian will make a prayerful effort to remain honest about video game addiction, especially if they currently seek treatment.

Stewardship

Stewardship principles may cover multiple fruits of repentance for the Christian who suffers from video game addiction. Change comes from learning and applying godly stewardship practices in the Christian's life. Some of these practices a pastor can encourage, and others are the place for a professional counselor.

Time

The repentant Christian understands the importance of time, and how God wishes his children to serve God and others with it. Practically speaking, the Christian who suffers from video game addiction will make efforts to reduce the amount of time they spend on video games, prayerfully considers their engagement with time-intensive genres of video games like MMORPGs, or even considers the possibility of removing video games altogether. They will seek to use that time to serve God and others according to their unique life situation.

Treasures

God has blessed everyone with certain material wealth, and he wishes them to be content, have a humble heart, and give generously. Practically speaking, the repentant Christian who suffers from video game addiction, and maybe even gambling addiction, will cut back or stop spending money on video games and microtransactions like loot boxes. The counseling pastor may

encourage the Christian to stop playing video games with loot box mechanics altogether to avoid the temptations to spend. The counseling pastor may need to refer this Christian to a professional counselor to deal with gambling addiction.

Talents

The repentant Christian suffering from video game addiction will want to glorify God with their talents. Despite the disparity in talent and abilities and the difficulty of failure, the Christian will glorify God by honing their talents and abilities through education and practice.

In some cases where the Christian is enthusiastic about video games, they could direct their passion into a career involving video games such as eSports or video game development. However, a counseling pastor would be wise to seek the opinion of the Christian's professional counselor before encouraging this course of action, as it could do more harm than good.

Temple

The repentant Christian who suffers from video game addiction will seek ways to glorify the bodily temple God created, redeemed, and dwells inside. Depending on the circumstances, this may take different forms, but generally, the Christian will seek to take care of their body through proper sleep, diet, exercise, and personal hygiene. This endeavor includes mental health. The Christian will seek professional help with any mental illness they have, and the counseling pastor will refer them to a qualified professional counselor.

Vocation

The repentant Christian suffering from video game addiction will seek to glorify God with his roles and responsibilities. This fruit of repentance will look different on a case-by-case basis. In one case, the Christian will set aside video games to serve their family like their spouse and children. In another case, the Christian may set aside video games to focus on education or work.

Social Interactions

Some Christians who suffer from video game addiction do so because of a lack of social skills or confidence. God reminds Christians in Prov 27:17, “As iron sharpens iron, so one person sharpens another.” Brotherly or sisterly support is invaluable. Even social video game environments fail to replace in-person interactions. A pastor may encourage the repentant Christian to attempt social interactions more often to help reduce the possibility of relapse. Clinton and Scalise report building solid social connections will help prevent relapse, and that talking to believers “is the best way to stay sharp in life.”²²³

Video Game Addiction and Professional Counseling

To be abundantly clear, another fruit of repentance is seeking treatment. Treating video game addiction is beyond the scope of the counseling pastor. The core issues associated with video game addiction and the associated comorbidities like depression, anxiety, ADHD, social phobia, or even gambling often require a professional counselor. The counseling pastor will refer the

223. Clinton and Scalise, 216.

Christian suffering from video game addiction to a professional counselor.²²⁴ As a fruit of repentance, the Christian who suffers from video game addiction will seek to participate in counseling as he or she is able.

Repentance Model Adjustments

A counseling pastor may exercise discretion and adjust the model to fit specific situations.²²⁵ For instance, if the Christian expresses obstinate defiance about their video game usage negatively impacting their lives and others, a heavier focus on convicting law may be wise. In another case, if the Christian expresses immense guilt and despair over their video game addiction, a more serious focus on soothing gospel may be applicable. Carefully consider what is appropriate to lead this beloved child of God to repentance.

Additional Encouragements

The pastor's role regarding video game addiction extends beyond a video game addiction counseling session. In a brief interview with John Schuetze, a professor of pastoral theology at Wisconsin Lutheran Seminary and a professional counselor, he encouraged pastors to address video game addiction. The following ideas summarize Schuetze's encouragement to pastors.

For one, a prudent pastor would help his members preemptively address this issue. This encouragement applies specifically if the congregation has young people, young men, and

224. For a more comprehensive guidance on mental health issues and seeking treatment, consult both volumes of *A Christian Guide to Mental Illness* by Dr. Stephen M. Saunders.

225. Schuetze, *Doctor of Souls*, 288.

families with young children. A pastor can incorporate video game addiction in his preaching and devotional applications. He can include examples of video game addiction in his teaching. He may address it in catechism class to younger children, to the teen group bible study, or the adult bible study. He may make a Bible study on addictions and include video game addiction alongside alcohol, drug, gambling, and pornography addictions.

The pastor may mention video game addiction in other counseling sessions. For instance, the pastor may highlight the potential dangers of video game addiction in premarital counseling to couples where one or both spend time playing video games.

In short, Schuetze advises pastors to directly tackle this concern and arm God's people to avoid pitfalls and address this emergent form of addiction. The preventative measure may prove prudent for future generations of Christians, their families, and the church.

CLOSING THOUGHTS AND CONCLUSION

Suggestions for Further Research

From the literature considered in this paper, it appears that video game addiction may be symptomatic of a broader cultural problem, especially for males. The recent cultural changes in male priorities, masculinity, and the family structure seemingly play a role in this issue. Additional research could explore these cultural changes in masculinity and the resultant impacts on the church.

The paper focused primarily on video game addiction according to the literature published up to and during most of 2021. A few years removed from this paper, the writer suggests additional evaluation of the progress on video game addiction research, treatment options, and Christian literature surrounding it. Essentially, this future research would follow up on this paper's findings.

Because the paper did not focus on this subject, further research could focus on the content of popular video games and the spiritual implications of this content.

Finally, further research could examine the efficacy of using video games to communicate scriptural truths. Since video games are a type of media, could a video game effectively communicate a scriptural message to someone similar to how a hymn, a stained-glass window, or a movie communicates a scriptural message via the unique features of that type of media?

Conclusion

This paper provided an overview of the literature regarding video game addiction, what possible implications video game addiction has on the church, considerations for the counseling pastor, how the counseling pastor can use God's Word to lead Christians suffering from video game addiction to repentance, and some additional encouragements to preemptively address the issue. A pastor may not have the competency to offer professional video game addiction counseling. Still, God's Word is a powerful ally to provide spiritual solace and guidance to even those who suffer from video game addiction.

One of the difficulties in researching and constructing this paper was the general recency of the literature and the lack of universal consensus regarding video game addiction. Moreover, there was a lack of Christian sources on video game addiction.

On a bright note, the literature which this paper considered offers sentiments of hope and desires for further research and public awareness of this issue. The writer shares a similar optimism.

APPENDIX

Chen, Oliffe, and Kelly supply a list of questions primary care physicians could ask individuals suspected of video game addiction. The counseling pastor will not use this list of questions to diagnose video game addiction, but he could use it as a guide to determine how video games have impaired or impacted aspects of the Christian's life.

1. Preoccupation—"How much time in a day do you spend thinking about games even when you are not playing, or planning when you can play next?"
2. Withdrawal—"What do you feel when you attempt to cut down or stop gaming, or when you are unable to play?"
3. Tolerance—"When do you feel the need to play for increasing amounts of time, play more exciting games, or use more powerful equipment to get the same amount of excitement you used to get?"
4. Unsuccessful Attempts to Control Playing—"How often do you feel that you should play less, but are unable to cut back on the amount of time you spend playing games?"
5. Loss of Interests—"How much participation in other recreations have you given up due to gaming?"
6. Continued Use Despite Problems—"How often do you continue to play games even when you know you are not getting enough sleep, being late to school or work, spending too much money, having arguments with others, or neglecting important duties?"
7. Deceiving—"How often do you lie to family, friends, or others about how much you game, or try to keep your family or friends from knowing how much you game?"
8. Escaping Negative Moods—"How does gaming help you escape from negative moods, or forget about personal problems, or relieve uncomfortable feelings such as guilt, anxiety, helplessness, or depression?"
9. Functional Impairment—"What significant changes have occurred with regards to relationships, job, educational or career opportunities because of gaming?"²²⁶

226. Chen, Oliffe, and Kelly, "Internet Gaming Disorder," 1157.

BIBLIOGRAPHY

- American Psychological Association, ed. *Diagnostic and Statistical Manual of Mental Disorders: DSM-5*. 5th ed. Washington, D.C: American Psychological Association, 2013.
- . “Internet Gaming,” <https://www.psychiatry.org/patients-families/internet-gaming>.
- Arcelus, Jon, Walter Pierre Bouman, Bethany Alice Jones, Christina Richards, Susana Jimenez-Murcia, and Mark D. Griffiths. “Video Gaming and Gaming Addiction in Transgender People: An Exploratory Study.” *Journal of Behavioral Addictions* 6, no. 1 (March 1, 2017): 21–29. <https://doi.org/10.1556/2006.6.2017.002>.
- Bavelier, Daphne. “Your Brain on Video Games.” Presented at the TEDxCHUV, Lausanne, Vaud (fr) Switzerland, June 22, 2012. https://www.ted.com/talks/daphne_bavelier_your_brain_on_video_games.
- Bavelier, Daphne, C. Shawn Green, Doug Hyun Han, Perry F. Renshaw, Michael M. Merzenich, and Douglas A. Gentile. “Brains on Video Games.” *Nature Reviews. Neuroscience* 12, no. 12 (November 18, 2011): 763–68. <https://doi.org/10.1038/nrn3135>.
- Blasi, Maria Di, Alessandro Giardina, Cecilia Giordano, Gianluca Lo Coco, Crispino Tosto, Joel Billieux, and Adriano Schimmenti. “Problematic Video Game Use as an Emotional Coping Strategy: Evidence from a Sample of MMORPG Gamers.” *Journal of Behavioral Addictions* 8, no. 1: 25–34. Accessed September 26, 2021. <https://doi.org/10.1556/2006.8.2019.02>.
- BVBA, Koen Geens, Zenjoy. “Loot Boxes in Three Video Games in Violation of Gambling Law | Federal Member of Parliament.” Koen Geens, <https://www.koengeens.be/news/2018/04/25/loot-boxen-in-drie-videogames-in-strijd-met-kansspelwetgeving>.
- Castro-Calvo, Jesús, Rafael Ballester-Arnal, Marc N. Potenza, Daniel L. King, and Joël Billieux. “Does ‘Forced Abstinence’ from Gaming Lead to Pornography Use? Insight from the April 2018 Crash of Fortnite’s Servers.” *Journal of Behavioral Addictions* 7, no. 3: 501–2. Accessed September 26, 2021. <https://doi.org/10.1556/2006.7.2018.78>.
- Chen, Kevin H., John L. Oliffe, and Mary T. Kelly. “Internet Gaming Disorder: An Emergent Health Issue for Men.” *American Journal of Men’s Health* 12, no. 4 (July 2018): 1151–59. <https://doi.org/10.1177/1557988318766950>.
- Children’s Commissioner. “Gaming the System.” *Children’s Commissioner*, October 2019, 37. <https://www.childrenscommissioner.gov.uk/wp-content/uploads/2019/10/CCO-Gaming-the-System-2019.pdf>.
- Clinton, Timothy E., and Eric Scalise. *The Quick-Reference Guide to Addictions and Recovery Counseling: 40 Topics, Spiritual Insights, and Easy-to-Use Action Steps*. Grand Rapids: Baker Books, 2013.
- Darvesh, Nazia, Amruta Radhakrishnan, Chantelle C. Lachance, Vera Nincic, Jane P. Sharpe, Marco Ghassemi, Sharon E. Straus, and Andrea C. Tricco. “Exploring the Prevalence of Gaming Disorder and Internet Gaming Disorder: A Rapid Scoping Review.” *Systematic Reviews* 9 (April 2, 2020): 68. <https://doi.org/10.1186/s13643-020-01329-2>.

- Dell’Osso, Bernardo, Ilaria Di Bernardo, Matteo Vismara, Eleonora Piccoli, Federica Giorgetti, Laura Molteni, Naomi A. Fineberg, et al. “Managing Problematic Usage of the Internet and Related Disorders in an Era of Diagnostic Transition: An Updated Review.” *Clinical Practice & Epidemiology in Mental Health* 17, no. 1 (July 14, 2021): 61–74. <https://doi.org/10.2174/1745017902117010061>.
- “EA Games: Loot Boxes Aren’t Gambling, They’re Just like a Kinder Egg.” *BBC News*, June 20, 2019, sec. Newsbeat. <https://www.bbc.com/news/newsbeat-48701962>.
- Elliott, Luther, Andrew Golub, Geoffrey Ream, and Eloise Dunlap. “Video Game Genre as a Predictor of Problem Use.” *Cyberpsychology, Behavior and Social Networking* 15, no. 3 (March 2012): 155–61. <https://doi.org/10.1089/cyber.2011.0387>.
- Entertainment Software Association. “2021 Essential Facts About the Video Game Industry.” Entertainment Software Association, <https://www.theesa.com/resource/2021-essential-facts-about-the-video-game-industry/>.
- Entertainment Software Ratings Board. “Ratings Guides, Categories, Content Descriptors.” ESRB Ratings, <https://www.esrb.org/ratings-guide/>.
- “Gambling: A Report of the Commission on Theology and Church Relations of The Lutheran Church - Missouri Synod,” February 1996.
- INTENTA. “Gaming Disorder Clinical Training,” <https://intenta.digital/training/gaming-disorder-clinical-training/>.
- González-Bueso, Vega, Juan José Santamaría, Daniel Fernández, Laura Merino, Elena Montero, and Joan Ribas. “Association between Internet Gaming Disorder or Pathological Video-Game Use and Comorbid Psychopathology: A Comprehensive Review.” *International Journal of Environmental Research and Public Health* 15, no. 4 (April 2018): 668. <https://doi.org/10.3390/ijerph15040668>.
- Goodman, Jarid, and Mark G. Packard. “Memory Systems and the Addicted Brain.” *Frontiers in Psychiatry* 7 (February 25, 2016): 24. <https://doi.org/10.3389/fpsy.2016.00024>.
- Greenfield, Patricia M. *Mind and Media : The Effects of Television, Video Games, and Computers*. Psychology Press, 2014. <https://doi.org/10.4324/9781315735634>.
- Gros, Lucio, Nicolas Debue, Jonathan Lete, and Cécile van de Leemput. “Video Game Addiction and Emotional States: Possible Confusion Between Pleasure and Happiness?” *Frontiers in Psychology* 10 (2019): 2894. <https://doi.org/10.3389/fpsyg.2019.02894>.
- Hoffman, Erin. “Life, Addictive Game Mechanics, And The Truth Hiding In Bejeweled.” Game Developer, September 17, 2009. <https://www.gamedeveloper.com/disciplines/life-addictive-game-mechanics-and-the-truth-hiding-in-bejeweled>.
- “ICD-11 - ICD-11 for Mortality and Morbidity Statistics,” <https://icd.who.int/browse11/l1-m/en#/http%3a%2f%2fid.who.int%2fid%2fentity%2f1448597234>.
- Jernström, Torulf. “Let’s Go Whaling: Tricks for Monetising Mobile Game Players with Free-to-Play.” Presented at the Pocket Gamer Connects Helsinki 2016, Helsinki, October 3, 2016. <https://www.youtube.com/watch?v=xNjI03CGkb4>.
- Kahneman, Daniel. *Thinking, Fast and Slow*. 1st edition. New York: Farrar, Straus and Giroux, 2013.
- Király, Orsolya, Marc N. Potenza, Dan J. Stein, Daniel L. King, David C. Hodgins, John B. Saunders, Mark D. Griffiths, et al. “Preventing Problematic Internet Use during the COVID-19 Pandemic: Consensus Guidance.” *Comprehensive Psychiatry* 100 (July 2020): 152180. <https://doi.org/10.1016/j.comppsy.2020.152180>.

- Larche, Chanel J., Katrina Chini, Christopher Lee, Mike J. Dixon, and Myra Fernandes. "Rare Loot Box Rewards Trigger Larger Arousal and Reward Responses, and Greater Urge to Open More Loot Boxes." *Journal of Gambling Studies* 37, no. 1 (2021): 141–63. <https://doi.org/10.1007/s10899-019-09913-5>.
- Lopez-Fernandez, Olatz, A. Jess Williams, Mark D. Griffiths, and Daria J. Kuss. "Female Gaming, Gaming Addiction, and the Role of Women Within Gaming Culture: A Narrative Literature Review." *Frontiers in Psychiatry* 10 (July 10, 2019): 454. <https://doi.org/10.3389/fpsy.2019.00454>.
- Madhok, Diksha. "Tencent Cracks down on Screen Time after Chinese State Media Says Gaming Is 'Spiritual Opium.'" CNN, <https://www.cnn.com/2021/08/03/investing/tencent-gaming-crackdown-hnk-intl/index.html>.
- "Mental Health for the Internet | Healthy Gamer," <https://www.healthygamer.gg/>.
- Mulligan, Christopher. "The Teenager's Guide to the Safe Use of Internet Pornography," NHS. "NHS England » Country's Top Mental Health Nurse Warns Video Games Pushing Young People into 'under the Radar' Gambling," January 18, 2020. <https://www.england.nhs.uk/2020/01/countrys-top-mental-health-nurse-warns-video-games-pushing-young-people-into-under-the-radar-gambling/>.
- Peeters, Margot, Ina Koning, Jeroen Lemmens, and Regina van den Eijnden. "Normative, Passionate, or Problematic? Identification of Adolescent Gamer Subtypes over Time." *Journal of Behavioral Addictions* 8, no. 3: 574–85. Accessed September 26, 2021. <https://doi.org/10.1556/2006.8.2019.55>.
- Peterson, Dr Jordan, and Farrell, Dr. Warren. "#47 - Warren Farrell - The Absolute Necessity of Fathers," <https://www.jordanbpeterson.com/podcast/episode-47/>.
- Petry, Nancy M., Florian Rehbein, Chih-Hung Ko, and Charles P. O'Brien. "Internet Gaming Disorder in the DSM-5." *Current Psychiatry Reports* 17, no. 9 (July 29, 2015): 72. <https://doi.org/10.1007/s11920-015-0610-0>.
- Pontes, Halley M., Bruno Schivinski, Cornelia Sindermann, Mei Li, Benjamin Becker, Min Zhou, and Christian Montag. "Measurement and Conceptualization of Gaming Disorder According to the World Health Organization Framework: The Development of the Gaming Disorder Test." *International Journal of Mental Health and Addiction* 19, no. 2 (June 3, 2019): 508–28. <https://doi.org/10.1007/s11469-019-00088-z>.
- "Richard A. Bartle: Players Who Suit MUDs," <https://mud.co.uk/richard/hcds.htm>.
- RSPH. "RSPH | Skins in the Game." Accessed September 2, 2021. <https://www.rsph.org.uk/our-work/policy/gambling/skins-in-the-game.html>.
- Schuetze, John D. *Doctor of Souls: The Art of Pastoral Theology*. Milwaukee, Wisconsin: Northwestern Publishing House, 2017.
- Schut, Kevin. *Of Games and God: A Christian Exploration of Video Games*. Grand Rapids, MI: Brazos Press, 2013.
- Škařupová, Kateřina, and Lukas Blinka. "Interpersonal Dependency and Online Gaming Addiction." *Journal of Behavioral Addictions* 5, no. 1: 108–14. Accessed September 15, 2021. <https://doi.org/10.1556/2006.5.2016.002>.
- Twenge, Jean M. *IGEN: Why Today's Super-Connected Kids Are Growing up Less Rebellious, More Tolerant, Less Happy-- and Completely Unprepared for Adulthood and (What This Means for the Rest of Us)*. New York: Atria Books, 2017.

- Wallach, Omri. "How Big Is the Global Mobile Gaming Industry?" Visual Capitalist, December 9, 2020. <https://www.visualcapitalist.com/how-big-is-the-global-mobile-gaming-industry/>.
- Wang, Ziliang, Yanbo Hu, Hui Zheng, Kai Yuan, Xiaoxia Du, and Guangheng Dong. "Females Are More Vulnerable to Internet Gaming Disorder than Males: Evidence from Cortical Thickness Abnormalities." *Psychiatry Research. Neuroimaging* 283 (January 30, 2019): 145–53. <https://doi.org/10.1016/j.psychresns.2018.11.001>.
- Yau, Yvonne H. C., and Marc N. Potenza. "Gambling Disorder and Other Behavioral Addictions: Recognition and Treatment." *Harvard Review of Psychiatry* 23, no. 2 (April 2015): 134–46. <https://doi.org/10.1097/HRP.0000000000000051>.
- Yokomitsu, Kengo, Tomonari Irie, Hiroki Shinkawa, and Masanori Tanaka. "Characteristics of Gamers Who Purchase Loot Box: A Systematic Literature Review." *Current Addiction Reports*, July 8, 2021, 1–13. <https://doi.org/10.1007/s40429-021-00386-4>.
- Zajac, Kristyn, Meredith K. Ginley, Rocio Chang, and Nancy M. Petry. "Treatments for Internet Gaming Disorder and Internet Addiction: A Systematic Review." *Psychology of Addictive Behaviors : Journal of the Society of Psychologists in Addictive Behaviors* 31, no. 8 (December 2017): 979–94. <https://doi.org/10.1037/adb0000315>.
- Zendle, David, Rachel Meyer, and Harriet Over. "Adolescents and Loot Boxes: Links with Problem Gambling and Motivations for Purchase." *Royal Society Open Science* 6, no. 6: 190049. Accessed October 18, 2021. <https://doi.org/10.1098/rsos.190049>.

Player or Played: How Does the Counseling Pastor Help Someone Suffering from Video Game

Addiction? © 2022 by David Alexander Ticks is licensed under [CC BY-NC-ND 4.0](https://creativecommons.org/licenses/by-nc-nd/4.0/)