

GAMING & MENTAL HEALTH

Author:- Hardik Vaghela

Co-Author:- Ar. Meet Patel

Ar. Fenny Patel

FACULTY OF ARCHITECTURE,DESIGN AND PLANNING,GANPAT UNIVERSITY

1. Abstract

The world has completely changed since the invention of gaming. With every new game released, gaming consoles, PCs, and mobile devices have advanced from earlier gaming eras. In the early 1950s, the space war was the first computer game to be launched. PlayStation, Xbox, and Nintendo were the first gaming consoles. Many people have found fulfillment in gaming by using it as their primary source of income. There is a new advancement in games using new technology every day. The human body can experience both positive and negative effects from gaming. Over-gaming has an impact on a person's physical and mental well-being. This paper discusses the problem that happens to the mental health of the human body due to excessive gaming and how it can be cured.

2. Introduction

Gaming is the act of playing electronic video games, which can be done on consoles, computers, mobile phones, or other mediums [1]. Those who play video games frequently are known as gamers [1]. Gaming is very popular throughout the world [1]. The term "gambling" was first used in the fifteenth century to describe gambling with dice or cards. When video games were first released in the 1970s, the term "gaming" came to be more closely associated with its modern meaning [1]. Gamers are generally classified into 3 main categories which are casual gamers, hardcore gamers, and professional gamers. Casual gamers are those players who play games very little in day-to-day life, while hardcore gamers are those who play games daily and spend most of their time gaming, and professional gamers are those who make money by playing games like e-sports players [1]. Games are played on platforms like mobile phones, PCs, and consoles. Games are categorized as either single-player or multiplayer and have many categories like word games, casual, educational, arcade, board, cards, casino, action, excitement, sound design, puzzles, racing, role-playing, sports, simulation, and strategy [1].

3. Aim & Objective:

Aim: To study the relationship between gaming and mental health

Objective:

- To understand the relation between gaming and mental health.
- How mental health is affected by gaming and can be cured

4. Literature Review

SR NO	TITLE	AUTHOR	YEAR PUBLISHED	PLACE/CITY	FOCUS AREA	METHODOLOGY	Summary Of Paper	Findings	Co-Benefits
1	The Benefits Of Playing Video Games	Isabela Granic, Adam Lobel, and Rutger C. M. E. Engels	January 2014	Radboud University, Nijmegen, Netherlands	Gaming	Survey	Benefits of playing games in four major domains- cognitive, emotional, motivational, and social benefits	Gamers have more developed and better skills in their body than non-gamers	More and more people will gain knowledge about the positive benefits of playing games
2	The Association Between Video Gaming And Psychological Functioning	Jualine M. von der Heiden, Beae Braun, Kai W. Muller nd Boris Egloff	26 July 2019	University Medical Center, Mainz, Germany	Gaming and Psychology	Survey	The psychological state of Mind while playing games and its relationship with health	Understanding the association between video games and the psychological health of gamers	More and more people will gain knowledge about psychological functions while playing games

5. Problems Identification

An addiction to video games is the result of repeatedly doing something extreme and abnormal, as well as the idea of playing games even when one is aware of the negative effects on one's relationships, performance at work or in school, insufficient sleep, poor individual hygiene, and further unfavorable results. Other names for video game addiction include internet gaming addiction, pathological gaming, excessive, troublesome, binge, and addiction to gaming [2]. Thus far, scientists believe that engaging in and releasing dopamine after winning a game. Dopamine is a neurotransmitter in the brain that is essential for many body processes, such as motivation and beneficial experiences. The same neurotransmitter, dopamine, is implicated in various use disorders, such as substance abuse and gambling disorders [3].

Additional indications of an addiction to video games include :

- Prioritizing playing video games instead of doing everyday tasks, fulfilling obligations, and other interests in life [2]
- Giving false information or using deception to persuade others to play video games, or hiding your gaming habits to avoid parental intervention, guilt, or shame [2]
- Anxiety, depression, or irritability are withdrawal symptoms experienced when video games are removed or made inaccessible [2]
- Video game tolerance, such as the requirement to play for longer periods to satisfy the urge to play [2]
- Dependency on gaming as an escape strategy for depressive states or life challenges [2]

6.1 Negative Effects of Gaming on Social Skills

As for the deadly aspect of playing games, the lack of in-person interaction, and withdrawing from other social activities, excessive gaming can harm social skills [4].

6.1.1 Poor Social Skills

You will become less aware of how to interact with others if you play video games too much [4].

Building social ability is very important in human life, but it will not happen as you will waste your entire day in front of a screen. Not improving social skills can lead to a worse life, as having not proper social skills can bring problems in finding a job, nurturing a relationship, or making friends [3].

6.1.2 Social Anxiety

Having social anxiety is more common in those with an addiction to video games than in those without a problem with excessive gaming. This is due to the close relationship and common impact between anxiety about society and gaming disorder. A lot of people who experience social anxiety will misuse video games as an escape and a way to survive. As long as you ignore the people, it will be successful in the short term. Longer term, though, this will negatively impact your social life even more. Because you're not interacting or meeting new people, your social anxiety will only get worse.

[3].

6.1.3 Loneliness

Playing video games nonstop at the expense of other interests and activities is risky.

You'll start prioritizing yourself over your family and close friends, which can make you feel isolated and keep you from making new friends or maintaining old ones.

[3].

6.1.4 Relationship Breakdown

The effects of a gaming addiction on society can be dangerous. It may severely harm one's relationships with friends and family. Lying about how much time you spend gaming and ignoring other people because you are an addictive gamer can lead to arguments, confrontations, and even divorce [4].

6.1.5 Toxicity

Those who play heavily may experience social problems as a result of the harmful effects of gaming. If you're a video game addict, you've come across hate,

harassment, and harmful effects on the internet. Gamers occasionally try to justify poisonous gaming culture as a natural aspect of the genre. Studies have indicated such harmful conduct is communicative, and continuous exposure enhances the probability in respect to someone harassing as well as mistreating more participants within future [4].

6.2 Negative Effects of Gaming on Mental Skills

6.2.1 Depression

Depression is one of the most common co-occurring conditions among gamers (Gonzalez-Bueso et al).

According to this research, 89% of addicted gamers have been identified as having depressive disorders in addition to their addiction to video games. They start to neglect other facets of their lives as they play online

games more and more. For instance, they disregard good practices like diet and exercise and have fewer social connections. That can all lead to depression or exacerbate pre-existing depression [5].

6.2.2 Lack of Motivation

Excessive video game playing is another factor contributing to an absence of inspiration. This occurs because a lot of requirements that are met by other activities, like hobbies, are also met by video games. Because video games satisfy every need that other activities typically satisfy, excessive gaming deters you from doing other things [5].

6.2.3 Poor Emotional Regulation

Among the most significant drawbacks about playing video games is that they could make it difficult for you to control your emotions [5]. Research indicates that individuals with an Internet addiction to gaming have been more likely to experience anxiety, depression, and aggression [5]. Their incapacity to manage to control their emotions, including anxiety, grief, rage, and other emotions, is the primary factor contributing to those comorbidities [5]. This is due to the widespread belief that video games allow you to escape from your feelings [5]. Because of this, a lot of players—especially kids and teenagers—play video games to cope with underlying negative emotions [5]. Video games, however, only serve to momentarily dull those unpleasant feelings rather than solve their problems. However, playing video games too much can increase those feelings, particularly if you play them for several hours every day [5]. Being able to effectively regulate your emotions allows you to better regulate your behavior. Playing too many video games can lead to problems in certain skills, like emotional control [5].

6.2.4 Interpersonal Conflict

Conflict between individuals is frequently caused by video games and gaming addiction. A thorough investigation into the impact of video games on interpersonal connections reveals that playing video games could negatively affect a player's relationships with others, including relatives, parents, and cousins. The research additionally validates that engaging in violent video games can significantly worsen players' interpersonal relationships with others. In contrast, in comparison to violent games, non-violent games can enhance the level of relationships between people [5].

Furthermore, a lot of the modern online games that players play, like Grand Theft Auto, Roblox, League of Legends [5], Rocket League [5], Fortnite [5], and Genshin Impact [5], have negative online communities. These communities' poisonous atmosphere can affect one's interpersonal relationships. Inside, all the resentment and rage build up similar to a hurricane that explodes on other individuals. Therefore, even though games could offer social occasion, occasionally the individual's social possibilities can result in worse interpersonal relationships, which can also harm other parts of your mental health [5].

6.2.5 Suicidal Thoughts

An excessive addiction to video games can lead to suicidal thoughts in certain people. The issue with video game addiction is that it can get out of control very fast. Playing video games quickly develops into your only activity and your top preference in life as you begin to lose focus and keep track of other things [5].

7. Positive Effect of Gaming on Social Skills

7.1 Prosocial Games Increase Prosocial skills

The social side of gaming is promoted by many prosocial games. In some games, you have to work with your teammates and exchange messages with them via text or voice chat. This may encourage social interaction and enhance communication abilities. Students who engaged in more prosocial gaming showed more prosocial behavior, according to three studies carried out in three different nations with three age categories [5].

7.2 Gaming can be an icebreaker

There are now other ways that gaming encourages social interaction besides prosocial gaming. In-person conversations, gaming could be a great way to break the ice and is a common topic of discussion for college and high school students [5].

7.3 Scholastic esports and clubs

A growing number of clubs and esports teams for students are emerging, promoting social interaction. Even though most games are played online, there are opportunities for in-person meetings and in-person gaming with other team members who are probably located nearby [5].

7.4 Social Media Apps

Discord and other gaming-related social media platforms are becoming more and more similar, making it easier for players to interact. With the help of the free text, video, and voice app Discord, players can connect to a group chat with other players to communicate in real-time while they're playing [5].

8. Positive Effect of Gaming

8.1 Improved Cognitive Abilities

A few cognitive skills, specifically concentration and visuospatial skills, are improved by playing video games [6]. Your skill to analyze and recall objects and their relationships is known as your visuospatial ability [6]. This skill can come in handy aimed at routine actions like driving, navigating a city, and deciphering maps and surrounding objects [6]. Additionally, spatial aptitude is crucial in many academic subjects, such as mathematics, the natural sciences [6], engineering [6], meteorology [6], and architecture [6]. One of the main advantages of video games is that they not only help professionals and students but also benefit gamers in their daily lives [6].

8.2 Enhanced Problems and Logic

As a result of playing games that demand a lot of strategy, planning, and logic to accomplish objectives, it stands to reason that gamers' brain regions related to logic and problem-solving will develop more fully [6].

8.3 Increased Hand-to-Eye Coordination

Improved hand-to-eye coordination is one more advantage of gaming [6]. These skills are important for accelerating the knowledge and acceptance of hand-to-eye coordination responsibilities, such as typing, riding a bike, and other activities where you must synchronize your hand and eye movements [6]. Playing games can help you study sensorimotor patterns and movements more fast and efficiently, which can be useful for responsibilities in the real world [6].

8.4 Greater Multi-Tasking Ability

Playing games has been demonstrated to improve multitasking skills. One of the most prominent benefits of gaming is that it makes it possible for you to accomplish multiple tasks at once in addition to improving and streamlining your daily tasks. Players are required to multitask while playing many games, particularly action games [6].

8.5 Faster and More Accurate Decision Making

The study also discovered that compared to both non-gamers and slow-paced game players, action game players are more likely to make decisions more quickly and accurately [6]. Players of action games solved problems up to 25% quicker than in slow-moving games, and they made more accurate decisions [6]. This skill can be helpful in occupations where quick decisions are crucial, such as healthcare or military settings where gamers are trained to respond swiftly and precisely. [6].

8.6 Enhanced Prosocial Behaviours

Even when you're not playing games, collaborating with other players and chatting with them via text or voice chat can help you become a better team player and social interaction. Beyond just playing prosocial games, gaming has become more social [6]. For instance, students at school might frequently discuss gaming in class [6]. Along with the emergence of scholastic esports teams and clubs, gaming and social media platforms like Twitch and Discord are becoming more and more integrated. Although gaming is becoming more social, it's crucial to balance in-person connections and friendships [6].

8.7 Better Eyesight

According to a study, those who play video games have better peripheral vision, with more detail visible [6]. This is particularly correct for first-person shooter game players, where it's essential to gather information from your peripheral vision to identify enemies or potential threats [6]. Being able to observe more detail in both the outside world and your eyesight can improve your performance on daily tasks like driving [6].

8.8 Higher Accuracy and Faster Completion of Tasks

Playing video games can help people become more accurate and faster at tasks requiring accuracy [6]. The study found that surgeons who played video games either recently or in the past completed the task 27% faster and made 37% fewer mistakes than non-gamers. [6]. More playtime also increased their accuracy. The study discovered that players outperformed non-gamers even with relatively low playing time (3 hours per week) [6]. According to this study and the others we've shared, gamers perform better on tasks requiring quickness, precision, and hand-eye coordination [6].

8.9 Some video games promote teamwork

Gamers of video games frequently engage in cooperative games where teamwork is essential to completing the game's objective. Team Fortress 2 [6], Roblox, League of Legends [6], Dota 2 [6], Counter-Strike [6], Rocket League [6], and a few more are among the more well-liked games. An investigation conducted by Brigham Young University found that teams that engaged in 45 minutes of cooperative video gaming performed up to 20% better than those that engaged in other team-building exercises. This suggests that when used as a team-building activity, gaming could be a good way to adoptive friendship among team members. The study also proves that certain games do have the capacity to improve a person's capacity for teamwork, which is an important ability to hold in the modern job market [6].

8.10 More physical activity

Your physical health may benefit from playing games that encourage movement, particularly when compared to games that need you to sit still the whole time. Playing VR games will require you to get up and move around, which is already healthier for you than playing them while seated [6].

9. Discussion

Up until now, we have researched data regarding the advantages and disadvantages of gaming for people. It's critical to learn about the diagnosis, treatment, and prevention of video game addiction these days.

9.1 Diagnosis of Video Game Addiction

Your healthcare provider may refer you to a psychologist or psychiatrist for an analysis of video game addiction, also known as Internet gaming disorder [3]. The Diagnostic and Statistical Manual of Mental Disorders (DSM-5) published by the American Psychiatric Association is used by mental health professionals to diagnose mental disorders, which includes information on internet gaming disorders [3]. Your mental health specialist will ask about your past medical and personal experiences, gaming habits, and other matters [3]. Generally speaking, extreme gaming behavior patterns that seriously impair social, familial, educational, and/or professional functioning are required for the diagnosis of Internet gaming disorder [3]. Usually, these patterns necessary continue aimed at a minimum of a year [3].

9.2 Treatment of Video Game Addiction

Psychotherapy, or talk therapy, is the primary treatment option for internet gaming disorder, which is the addiction to video games [3]. The word "psychotherapy" refers to a range of therapeutic methods meant to assist you in identifying and changing unhelpful feelings, ideas, and actions [3]. Consulting with a mental health specialist (psychologist or psychiatrist, for example) can offer you and your family information, support, and direction [3].

A person who is addicted to video games may benefit from the following specific forms of psychotherapy:

- **Cognitive-Behavioral Therapy (CBT):** This method of therapy is goal-oriented and structured. You can inspect your thoughts and feelings more carefully with the assistance of a therapist or psychologist. You can adopt healthier thought patterns and habits and remove negative and obsessive behaviors through cognitive behavioral therapy (CBT) for video game addiction [3].
- **Group therapy:** Group therapy is a form of psychotherapy where a group of people gets together under the guidance of a therapist or psychologist to describe and discuss their issues [3]. For those who are addicted to video games and have lost touch with friends or peers due to their addiction, group therapy can be a great source of inspiration and moral support [3].

9.3 Prevention of Video Game Addiction

To stop becoming addicted to video games Here are some crucial pointers that can be used to reduce addiction:

- Scheduling regular gaming breaks
- Playing other pleasant non-gaming activities
- self-care practices similar to eating well, exercising, also spending time outside [3].
- Connecting with a network of friends and family in person for social support
- Identifying constructive coping mechanisms for mental health concerns or life challenges, such as journaling, playing music, meditation, or discussing them with a loved one or mental health professional [3].
- Establishing limits with friends who played corrupt video games before with specific games that harm you [3].
- A regular nap and wake cycle of about seven hours is considered proper sleep hygiene [3].
- Paying attention to family members who voice worries about your gaming.
- Paying attention to your feelings before, during, and after a game [3].
- Setting screen time limits for all electronics, including video games [3].

10. Conclusion

According to the research mentioned above, playing video games in front of a screen doesn't always mean that a player is wasting his health. Both the advantages and disadvantages of gaming are significant to people. The above-mentioned techniques can be used to diagnose and treat video game addiction in those cases where

gamers are struggling to break free from their addiction. The world is currently entering a stage where video games are evolving daily. Thus, it's critical to understand how gaming affects people's mental health.

References

- [1] G. Wright, "What is gaming," 16 11 2022. [Online]. Available: <https://www.techtarget.com/whatis/definition/gaming>.
- [2] C. Clinic, "Cleavland Clinic," 27 05 2022. [Online]. Available: <https://my.clevelandclinic.org/health/diseases/23124-video-game-addiction>.
- [3] C. Adair, "The Social Effects Of Video Games," 10 03 2022. [Online]. Available: <https://gamequitters.com/social-effects-of-video-games/>.
- [4] C. Adair, "Video Games And Mental Health: How Gaming Affects Your Mental Health," 17 10 2021. [Online]. Available: <https://gamequitters.com/how-gaming-affects-your-mental-health/>.
- [5] C. Adair, "11 Positive Effects Of Video Games," 06 07 2021. [Online]. Available: <https://gamequitters.com/positive-effects-of-video-games/>.
- [6] L. S. & A. Sternlicht, "Video Games. Mental Health and Addiction: The Good, The Bad, and the Ugly," 24 03 2021. [Online]. Available: <https://www.familyaddictionspecialist.com/blog/video-games-mental-health-and-addiction-the-good-the-bad-and-the-ugly>.

