







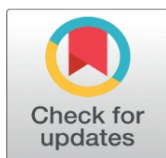
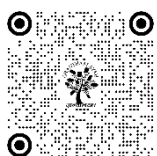
# IMPACT OF ONLINE GAMING ADDICTION ON SOCIAL ISOLATION AMONG FIRST-YEAR SATHYABAMA UNDERGRADUATE STUDENTS: A STUDY

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## ABSTRACT

Online gaming addiction has become a growing concern in recent years due to the increasing popularity of online games and the easy access to them via the internet. This phenomenon can lead to significant changes in an individual's behavior, as they prioritize playing games over other activities and responsibilities. The excessive and prolonged use of online games can result in physical, social, and psychological problems, such as poor sleep habits, decreased physical activity, and increased levels of stress and anxiety. In severe cases, it can lead to social isolation, poor academic performance. The issue of online gaming addiction has become a public health concern and requires attention from parents, educators, and health professionals. In this study researcher adapt quantitative methodology and collected data through survey method. Researcher selected the first year under graduate students from Sathyabama institute of science and technology, Chennai as sample for this study. This abstract highlights the need for research on the causes and consequences of online gaming addiction and the development of effective interventions and prevention strategies based on systematic research.

**Keywords:** Online Games, PUBG, Free Fire, Gaming, Addiction, Gaming Apps, Sathyabama

## 1. INTRODUCTION

In recent years, the rise of online gaming has been a significant cultural and technological phenomenon, particularly among young adults. While online gaming has many potential benefits, such as cognitive and social development, it can also lead to addictive behaviours that may result in negative consequences. One such consequence is social isolation, which can be particularly problematic for first-year

undergraduate students who are adjusting to a new environment and may have limited social networks.

The advent of online gaming has revolutionized the way people engage with games. Online gaming has become an increasingly popular pastime among individuals of all ages, particularly young adults, and teenagers. While online gaming provides an opportunity for players to connect with others and enjoy a fun and engaging activity, there are concerns regarding the potential negative impact of excessive and prolonged gaming.

Research has shown that the excessive and prolonged use of online games can lead to physical, social, and psychological problems. These include poor sleep habits, decreased physical activity, and increased levels of stress and anxiety. Furthermore, online gaming addiction has become a public health concern that requires attention from parents, educators, and health professionals.

Online gaming addiction can lead to significant changes in an individual's behaviour, as they prioritize playing games over other activities and responsibilities. This can negatively impact their academic and social lives, leading to poor academic performance and isolation from friends and family. As such, it is imperative to explore the extent of the problem, its effects on individuals, and the potential interventions that can be put in place to mitigate its impact.

This research paper seeks to explore the issue of online gaming addiction, its effects on individuals, and the potential interventions that can be put in place to address the problem. The paper will examine the current state of research on online gaming addiction, its impact on individuals, and the factors that contribute to its development. Additionally, the paper will explore the potential interventions that can be put in place to address the problem and support individuals struggling with online gaming addiction. By examining this issue, we hope to contribute to the ongoing discussion on online gaming addiction and inform efforts to address this public health concern.

## **1.1. BACKGROUND**

**Early Online Gaming:** One of the earliest examples of online gaming can be traced back to the 1970s and 1980s, when computer engineers and hobbyists began developing and playing text-based games over dial-up connections. These games, such as MUD (Multi-User Dungeon), were primitive by today's standards but laid the foundation for the online gaming industry.

**The Rise of Massively Multiplayer Online Games (MMOs):** In the late 1990s and early 2000s, online gaming exploded in popularity with the rise of MMOs like Ultima Online, Ever Quest, and World of Warcraft. These games allowed players from all over the world to interact with each other in virtual environments, creating new forms of social interaction and entertainment.

**The Emergence of Esports:** As online gaming became more mainstream, competitive gaming (known as esports) also emerged. Competitive gaming tournaments, such as the Electronic Sports World Cup (ESWC) and the World Cyber Games (WCG), attracted millions of viewers and helped to legitimize gaming as a professional sport.

**The Mobile Gaming Revolution:** With the advent of smartphones and tablets, online gaming became even more accessible and ubiquitous. Mobile games like Candy Crush, Clash of Clans, and Pokémon Go became cultural phenomena, with millions of people playing them around the world.

**The Future of Online Gaming:** Online gaming continues to evolve and expand, with new technologies like virtual reality and cloud gaming offering even more immersive and accessible gaming experiences. As the industry grows, so do the challenges and opportunities for game developers, publishers, and players alike.

In the beginning, video games were created mainly to test the computer's performance, but eventually, they evolved to include network capabilities. Initially, online gaming was limited to playing video games with friends, which required specific gaming devices such as play stations, Xbox, and Nintendo switches. Later, it became available on personal computers and laptops, and currently, it is also accessible on smartphones. While online gaming offers benefits like stress relief, entertainment, and hobby development, it can also pose risks to the gamers.

## **2. OBJECTIVE**

- Determine the prevalence of online gaming addiction among first-year Sathyabama undergraduate students.
- Assess the level of social isolation experienced by first-year Sathyabama undergraduate students.
- Investigate the relationship between online gaming addiction and social isolation among first-year Sathyabama undergraduate students.
- Identify the factors that contribute to online gaming addiction and social isolation among first-year Sathyabama undergraduate students.

## **3. REVIEW OF LITERATURE**

In 2021, India recorded a significant growth in online gamers, reaching around 390 million, an eight percent increase from the previous year, with an expected rise to over 450 million by 2023. Of these gamers, approximately 95 million paid for online games. Research conducted in Paris in 2019 revealed that many young adults who were involved in video gaming displayed dysfunctional traits such as impulsivity, sensation seeking, low self-esteem, and difficulty in emotional regulation. Internet gaming disorders were associated with maladaptive behaviours and dysfunction in emotion regulation. Mental health disorders, including depression and anxiety, affect a large percentage of the global population, with limited access to treatment due to limited government funding. [Bonnaire & Baptista \(2019\)](#).

Individuals diagnosed with Internet Gaming Disorder often have a lifestyle disorder that is strongly associated with psychological stress. They may use excessive gaming as a coping mechanism for psychiatric stress, which can negatively affect their eating habits, offline activities, and communication with others. Research has also found a significant relationship between Internet gaming and depression. Emotional regulation and family warmth are critical factors that can reduce involvement in video gaming. Some internet gamers may use online gaming as a means of avoiding everyday problems, which may lead to internet gaming disorder characterized by silence, mood modification, tolerance, withdrawal symptoms, conflict, and relapse. Social anxiety, fatigue, loneliness, and negative self-esteem are also common symptoms of gaming addiction. [Archana et al. \(2019\)](#).

Disordered Gaming refers to excessive involvement in internet gaming to the extent that employment, education, relationships, and mental health are negatively impacted. This condition is viewed as a secondary symptom to both anxiety and depression. An anxious gamer may play games more often to escape their feelings

of anxiety, which can increase depressive symptoms when they return to real life. However, gaming can also reduce stress in a measured and reasonable amount, such as in the case of a student who uses gaming to cope with exam-related stress. Males are more likely to develop gaming disorder due to their higher drive for achievement and competition, while females are more prone to internalized symptoms such as depression. [Stavropoulos et al. \(2022\)](#).

Personality traits, such as sensation seeking, self-control, and neuroticism, may play a significant role in the development and maintenance of online gaming addiction. Prolonged gaming sessions have been found to cause depression, and this issue is more prevalent in developed countries. Young adults aged between 18 and 44 are more likely to be affected by gaming disorders, as they tend to experience more loneliness and mental distress than older age groups. [Mehroof & Griffiths \(2010\)](#).

Online gaming has a unique function in fulfilling the need for belonging without risking face-to-face rejection or ridicule. Therefore, individuals with deficient social skills may be more prone to addictive gaming. Neuroticism, extraversion, openness to experience, and conscientiousness are some of the factors that influence addictive online gaming. [Cole & Hooley \(2013\)](#).

A major concern worldwide is the long waiting lists for mental health check-ups in public hospitals. In India, the waiting list exceeds 2 lakh, and many individuals opt for expensive private medical check-ups due to the long waiting periods. Although several apps have been developed for mental health check-ups, only 3% of them have been thoroughly validated by the medical research council. However, some online gaming apps have been successful in improving mental health outcomes in some domains. [Kowal et al. \(2021\)](#).

## **4. THEORETICAL FRAMEWORK**

### **4.1. DOPAMINE THEORY OF ADDICTION**

The dopamine theory of addiction suggests that the release of dopamine in the brain's reward system is a key factor in the development of addiction. Dopamine is a neurotransmitter that is released in response to rewarding stimuli, such as drugs, alcohol, or even certain behaviours like gambling or playing video games. Over time, repeated exposure to these stimuli can lead to changes in the brain's reward system, resulting in the development of addiction.

In the case of online gaming addiction and social isolation, the dopamine theory of addiction can be applied to understand how the rewarding nature of gaming can lead to addictive behaviour. Online gaming can provide a constant source of rewarding stimuli, such as in-game achievements, social recognition, and the satisfaction of completing challenges or levelling up. This can lead to an increase in dopamine release, which reinforces the behaviour and can result in addiction.

Additionally, social isolation can exacerbate this effect. For individuals who are socially isolated, online gaming can provide a sense of social connection and belonging, further reinforcing the behaviour, and increasing dopamine release. This can lead to a cycle of addiction, where individuals become increasingly reliant on gaming to meet their social and emotional needs.

Overall, the dopamine theory of addiction provides a framework for understanding how the rewarding nature of online gaming and social isolation can contribute to addiction. By understanding these underlying mechanisms, it may be possible to develop more effective interventions and treatments for individuals struggling with online gaming addiction and social isolation.

## **4.2. TECHNOLOGY DETERMINISM THEORY**

Technology determinism theory suggests that technology drives social change, and that technological advancements determine the cultural and social norms of a society. This theory can be applied to the research paper on online gaming addiction and social isolation in several ways.

Firstly, technology determinism theory can be used to argue that the rise of online gaming and the subsequent increase in addiction and social isolation can be attributed to the technological advancements that have made online gaming possible. With the rise of the internet, social networking sites, and online gaming platforms, individuals have increasingly turned to these virtual spaces to fulfil their social needs, leading to addiction and social isolation.

This technology determinism theory can be used to argue that the cultural and social norms surrounding online gaming have been shaped by technology. The widespread availability of online gaming has led to a normalization of this behaviour, making it more acceptable and even desirable in some cases. This normalization, in turn, has contributed to the rise of addiction and social isolation among individuals who engage in excessive online gaming.

This theory can help to explain the role of technology in the development of online gaming addiction and social isolation, highlighting the need for greater awareness of the potential negative consequences of technological advancements.

## **5. METHODOLOGY**

### **5.1. RESEARCH DESIGN**

The research design for this study is a cross-sectional survey design. This design allows for the collection of data at a single point in time and allows for the measurement of relationships between variables.

### **5.2. SAMPLING**

The sampling technique for this study is convenience sampling, which involves selecting participants based on their availability and willingness to participate. The sample will be drawn from individuals who play online games regularly and are over the age of 18-19

### **5.3. DATA COLLECTION**

Data will be collected through an online survey using Google Forms. The survey will consist of closed-ended questions that will be used to collect quantitative data. The survey will be divided into three sections: demographics, online gaming addiction, and social isolation.

### **5.4. DATA ANALYSIS**

Data will be analysed using descriptive and inferential statistics. Descriptive statistics will be used to summarize the characteristics of the sample, while inferential statistics will be used to test the hypotheses.

## 5.5. HYPOTHESES

The following hypotheses will be tested:

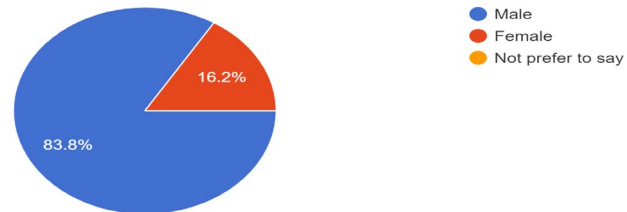
H1: There is a significant positive relationship between online gaming addiction and social isolation.

H2: The level of online gaming addiction is significantly different between males and females.

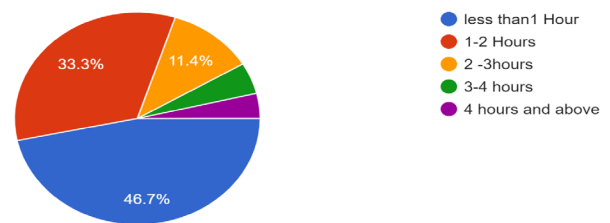
H3: The level of social isolation is significantly different between individuals who play online games alone and those who play with others.

## 6. RESULT AND FINDINGS

- Among 200 respondent's majority of the students were male

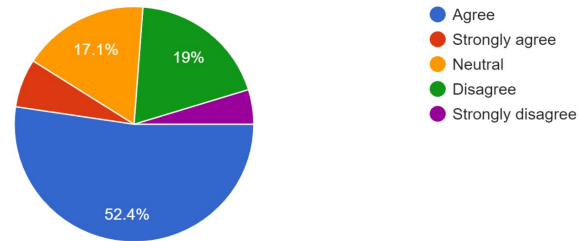


- A variety of games were available, with 64.8% of participants playing action or shooting games, 17.1% playing sports games such as cricket, tennis, and football, 16.2% playing drama games, and 1.9% playing games that offered monetary rewards. The prevalence of action/shooting games suggests violent behaviour among young people.
- According to the findings of the research paper, it was observed that 72% of students utilize smartphones to play online games. In addition, 14.3% of students prefer using laptops, while 8.6% of students choose to play games on PCs. Tablets were found to be the preferred device for 2.9% of students, while 1.9% of students opted for other devices.
- Hours of playing online games

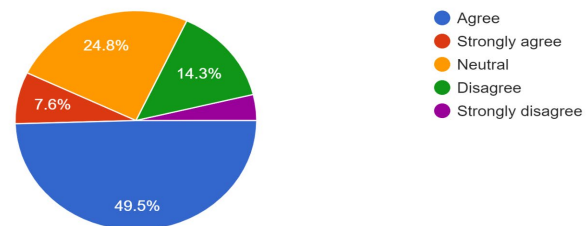


- Most of the students concurred that achieving victory in online game tasks can enhance their level of confidence.
- The impact of online games on personal time spent with family and friends was examined in the study, and the findings revealed that a significant portion of students agreed that online gaming can consume their personal time with loved ones. Specifically, 58.1% of students agreed with this statement, while 13.3% of students strongly agreed. On the other hand, 7.6% of students disagreed with this notion, and 2.9% of students strongly disagreed. A neutral reaction was given by 18.1% of students. These results suggest that a considerable percentage of students recognize the potential negative impact that online games can have on personal relationships and social activities.

- Foregoing sleep for the sake of gaming

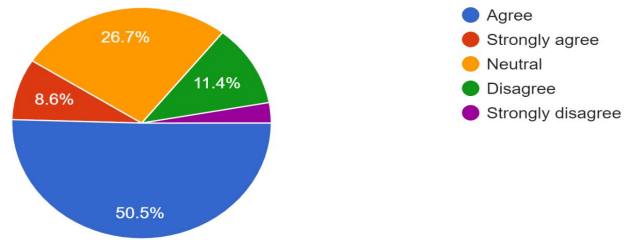


- The study explored the potential impact of online gaming on an individual's self-care practices, such as eating, bathing, cleaning, shopping, and exercise. The findings revealed that a considerable number of students, 47.6%, acknowledged that they often neglect or skip self-care activities because of online gaming. In contrast, 41% of students indicated that they do not neglect their self-care, and 11.4% of students admitted that they sometimes do so. These results highlight the possible negative impact of online gaming on an individual's health and well-being, particularly if they are not able to maintain a healthy balance between gaming and self-care activities. It is essential for individuals to recognize the importance of self-care practices and prioritize them, even when engaging in online gaming.
- The research paper aimed to investigate the potential impact of online gaming on an individual's social behaviour and interaction. The findings revealed that almost half of the students, 49.5%, agreed that they become socially isolated while playing online games. Moreover, 7.6% of students strongly agreed with this statement. In contrast, 14.3% of students disagreed, and 3.8% of students strongly disagreed. A neutral reaction was given by 24.8% of students. These results suggest that a significant percentage of students recognized the possibility of becoming socially isolated while engaging in online gaming. This emphasizes the importance of maintaining a healthy balance between gaming and social interaction to prevent negative consequences on an individual's social behaviour and overall well-being.



- The study aimed to examine the potential impact of online gaming on an individual's emotional response when interrupted while playing. The results revealed that half of the students, 50.5%, agreed that they get angry when someone interrupts them while playing online games. Additionally, 8.6% of students strongly agreed with this statement. Conversely, 11.45% of students disagreed, and 2.9% of students strongly disagreed. A neutral reaction was given by 26.7% of students. These findings suggest that online gaming can trigger negative emotions and responses in some individuals, highlighting the importance of practicing self-regulation and managing emotions while engaging in online gaming. It is essential to recognize the potential

impact of online gaming on one's emotional well-being and take necessary steps to maintain a healthy balance.



## 7. THEORETICAL IMPACT OF TECHNOLOGY DETERMINISM & DOPAMINE ADDICTION THEORY

The theoretical impact of this research paper highlights the relevance and accuracy of the technology determinism theory in explaining the phenomenon of online gaming addiction among first-year Sathyabama undergraduate students. As per the theory, technology is seen as a dominant force that shapes human behaviour, and in this case, it is evident that the addiction to online gaming has led to social isolation among students. The study findings confirm that technology, in this case, online gaming, is the sole factor contributing to addiction among students, and sometimes it completely takes over them, leading to negative impacts on their social lives. Thus, the research proves that the technology determinism theory is right, and it has practical implications for addressing the negative effects of technology addiction on social isolation among young adults.

The study confirms that the dopamine release experienced with drugs and other addictive substances is similar when playing online games, suggesting that addiction to online gaming follows similar neurological pathways as drug addiction. Dopamine is a neurotransmitter that affects different bodily functions, including learning, motivation, heart rate, blood vessel, sleep, mood, attention, and it is responsible for the rewarding feelings associated with addictive behaviours. The study findings support the dopamine theory of addiction, which posits that the release of dopamine in the brain's reward centre reinforces addictive behaviour and can lead to social isolation and other negative outcomes. Thus, the research proves that the dopamine theory of addiction is right, and it has practical implications for addressing the negative impacts of online gaming addiction on social isolation among young adults.

## 8. CONCLUSION

This study aimed to investigate the impact of online gaming addiction on social isolation among first-year Sathyabama undergraduate students. The research findings uncovered several important points. Firstly, the prevalence of action/shooting games suggested a potential for violent behaviour among young people. Additionally, most students believed that achieving success in online games could boost their confidence. However, the study also highlighted the potential negative impact of online gaming on personal relationships and social activities, with a significant percentage of students acknowledging this risk. Therefore, maintaining a healthy balance between gaming and self-care activities is crucial to prevent negative consequences on an individual's health and well-being. Moreover, the study suggested that online gaming can trigger negative emotions and responses in some individuals, underscoring the importance of practicing self-regulation and managing emotions while engaging in online gaming. Further more, the research



findings revealed that almost half of the students, specifically 49.5%, agreed that they become socially isolated while playing online games. Additionally, half of the students, 50.5%, admitted that they experienced anger when interrupted while playing online games. These results highlight the potential negative impact of online gaming on social interactions and emotional regulation among young adults. Therefore, it is essential for individuals to be aware of the risks associated with online gaming addiction and take appropriate measures to maintain a healthy balance between gaming and other aspects of their lives.

Lastly, the findings of this research suggest that excessive online gaming can lead to addiction, which could cause negative effects on an individual's social interactions and emotional regulation. Thus, this study emphasizes the importance of understanding the potential risks of online gaming addiction and taking necessary steps to prevent its adverse effects.

### **CONFLICT OF INTERESTS**

None.

### **ACKNOWLEDGMENTS**

None.

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