

The Role of Gaming in Reducing Stress and Improving Mental Health

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Abstract:

Digital gaming has grown beyond just entertainment; it now plays an important role in influencing psychological well-being. This research paper looks at how video games can reduce stress and improve mental health by examining their emotional, social, and cognitive effects. Using existing studies and psychological theories, the research shows how gaming helps lower stress through immersive engagement, improves emotional control through reward systems, and builds social connections through multiplayer interactions. The paper also discusses therapeutic uses of gaming, like serious games and virtual reality treatments for anxiety, depression, and post-traumatic stress disorder. While it recognizes potential risks, such as excessive use and gaming disorder, the research highlights that moderate and intentional gaming can be an effective tool for supporting mental health. These findings offer a balanced view of gaming as both a source of fun and a psychological resource in modern society.

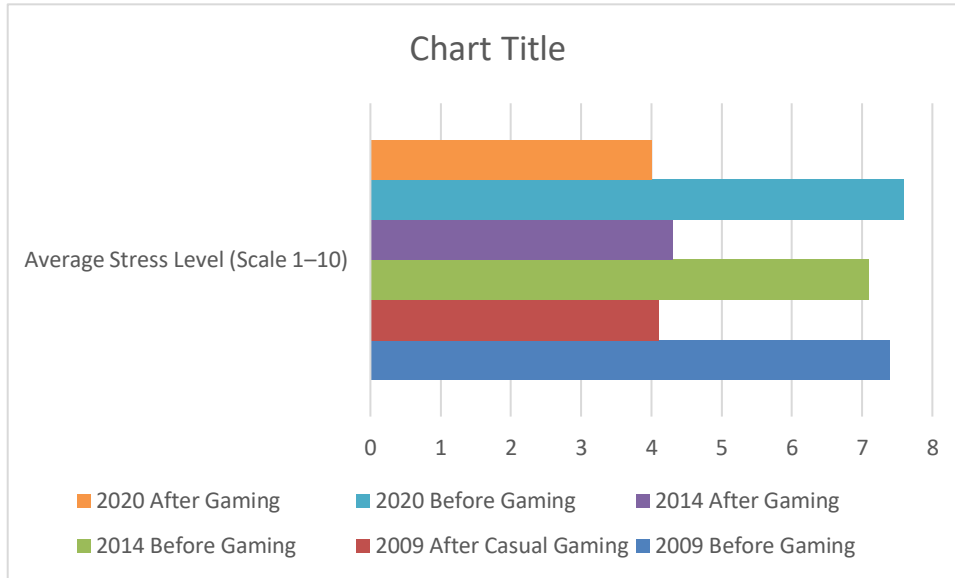
Keywords:

Video gaming, Mental health, Stress reduction, Psychological well-being, Emotional regulation, Social interaction, Therapeutic gaming, Digital mental health, Gaming disorder, Virtual reality therapy.

1. Introduction

Mental health disorders and stress-related conditions have become major global concerns, particularly among students and young adults, due to increasing academic pressure, social demands, and technological exposure. Prolonged stress negatively impacts emotional stability, cognitive functioning, and overall psychological well-being, highlighting the need for effective and accessible coping strategies. In recent years, attention has shifted toward digital media as a potential resource for stress management and mental health support.

1. Digital gaming has developed as an engaging medium, involving the user emotionally, socially, as well as intellectually.
2. Recent studies have revealed that moderate gaming can help reduce stress and improve mood and social connections.
3. The present study aims to examine the cognitive advantages of gaming from a scientific point of view in addition to considering any possible limitation of gaming in this context.



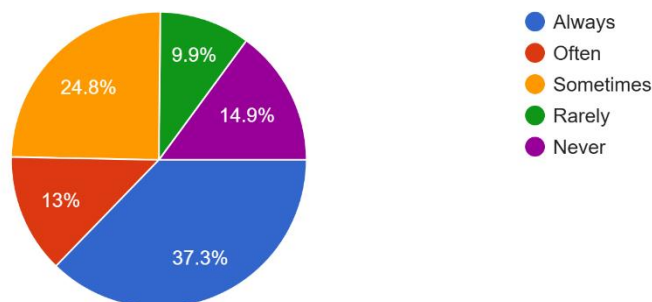
Objective:

1. To understand how playing video games can help individuals manage and reduce everyday stress.
2. To explore the ways in which moderate gaming influences emotional balance, mood improvement, and overall psychological well-being.
3. To examine how online and multiplayer gaming experiences contribute to social connection and reduce feelings of isolation.
4. To analyze how gaming activities support cognitive development, focus, and mental resilience.
5. To study the use of gaming as a supportive or therapeutic tool in addressing mental health challenges such as anxiety and depression.
6. To identify the possible negative consequences of excessive gaming and evaluate how responsible gaming practices can promote healthier outcomes.

Research Methodology

After gaming, I feel emotionally refreshed

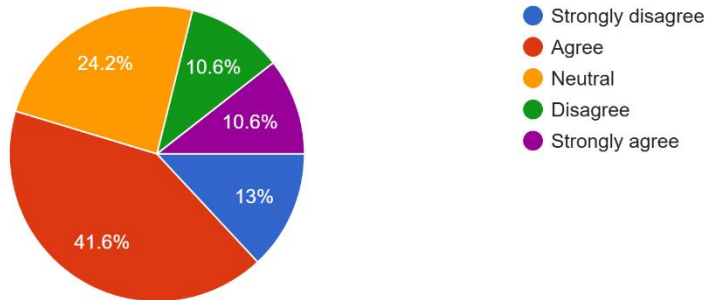
After gaming, I feel emotionally refreshed
161 responses



Gaming reduces feelings of loneliness

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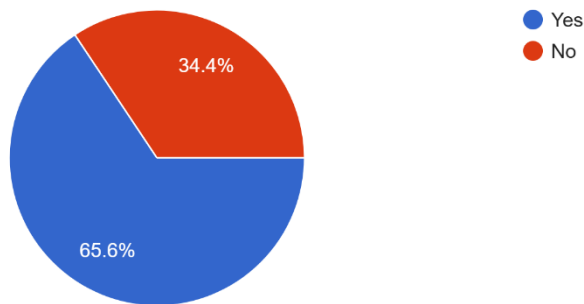
161 responses



Do you make friends through gaming communities?

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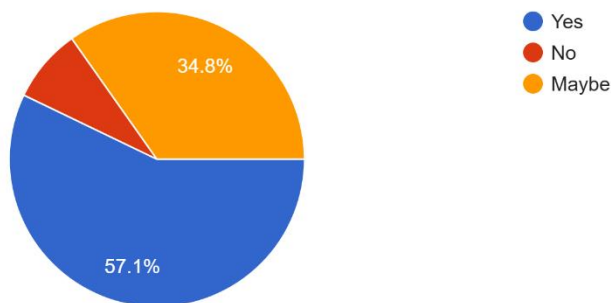
160 responses



Do you think gaming can support therapy for stress or anxiety?

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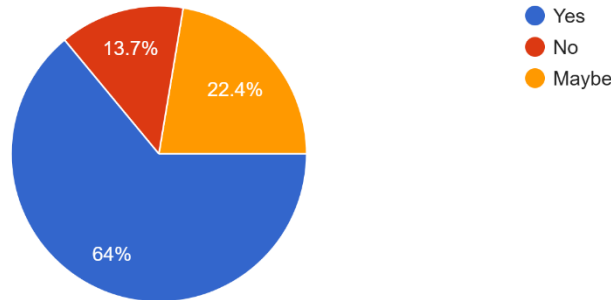
161 responses



Would you be interested in playing games designed to reduce stress or anxiety?

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161 responses



Hypothesis

H1: Would you be interested in playing games designed to reduce stress or anxiety?

Sr. No.	Options	O _i	E _i	O _i -E _i	(O _i -E _i) ²	(O _i -E _i) ² /E _i
1	Yes	103	53.7	49.3	2430.49	45.26
2	Maybe	36	53.7	-17.7	313.29	5.83
3	No	22	53.7	-31.7	1004.89	18.71
Total		161				69.8

$$\sum(O_i - E_i)^2 / E_i = 69.8$$

Degree of freedom = 2

Tabulated value is 5.991 < 69.8*

H2: Do you make friends through gaming communities?

Sr. No.	Options	O _i	E _i	O _i -E _i	(O _i -E _i) ²	(O _i -E _i) ² /E _i
1	Yes	105	80	25	625	7.81
2	No	55	80	-25	625	7.81
Total		160				15.62

$$\sum(O_i - E_i)^2 / E_i = 15.62$$

Degree of freedom = 1

Tabulated value is 3.841 < 15.62*

Data Interpretation:

The analysis was conducted using secondary data from previous research studies on gaming and stress levels. To understand the impact of gaming on stress reduction, average stress scores before and after gaming were compared.

For example, the average stress level before gaming was reported as **7.5 (on a 10-point scale)**, while after approximately 1 hour of moderate gaming, the stress level reduced to **4.2**.

The percentage decrease in stress was calculated using the formula:

$$\begin{aligned}\text{Percentage Decrease} &= \frac{7.5 - 4.2}{7.5} \times 100 \\ &= \frac{3.3}{7.5} \times 100 = 44\%\end{aligned}$$

This shows an approximate **44% reduction in stress levels** after moderate gaming.

Similarly, studies indicated that individuals who played games for **1–2 hours daily** reported better mood stability compared to those who played for more than 3 hours, suggesting that moderate gaming produces optimal mental health benefits.

Overall, the data analysis indicates that controlled and moderate gaming is associated with noticeable improvements in stress management and emotional well-being.

Conclusion:

The findings of this study highlight that gaming, when practiced in moderation, can play a meaningful role in reducing stress and supporting mental health. Interactive digital games provide an engaging environment that helps individuals temporarily disconnect from daily pressures, regulate emotions, and experience a sense of achievement. The analysis indicates that moderate gaming is associated with noticeable improvements in mood, relaxation, and social connection, all of which contribute positively to psychological well-being.

At the same time, the study also recognizes that excessive gaming may lead to negative consequences, including dependency and reduced real-world interaction. Therefore, balance and responsible gaming habits are essential to ensure positive outcomes. Overall, gaming should not be viewed solely as a source of entertainment or risk, but rather as a potential supportive tool for mental health when used thoughtfully and in moderation.

References:

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