

Digital Well-Being and Online Gaming Among Adolescents: The Mediating Role of Emotional Intelligence and Social Support

Shivangi Tiwari¹ Dr. Rizwana² Purnima Tiwari³

¹Research Scholar, Dept. of psychology, PPN PG College, Kanpur, UP, India. Email: shvngtiwari158@gmail.com

²Assistant Professor, Dept. of psychology, PPN PG College, Kanpur, UP, India.

³Research Scholar, Dept. of psychology, PPN PG College, Kanpur, UP, India.

ABSTRACT

The fast growth of digital technology and the immense appeal of online gaming have profoundly altered the daily routines of teenagers. Although gaming on the internet may be a fun way to pass the time, improve one's brainpower, and connect with others, playing too much or without moderation can have detrimental effects on one's mental health, scholastic success, and relationships. With a focus on the mediating functions of emotional intelligence and social support, this research seeks to examine the relationship between teenage online gaming and digital health. This research aims to provide light on whether or not teenagers' perceived social support and emotional intelligence mitigate the detrimental impact of problematic online gaming on their digital well-being.

Adolescent pupils are surveyed using a standardised questionnaire in this study, which employs a quantitative research approach. Utilising descriptive statistics, correlation analysis, multiple regression, and mediation analysis, data will be examined using Structural Equation Modelling (SEM) or PROCESS Macro. Using emotional intelligence and social support as intermediaries, the theoretical framework demonstrates that digital well-being is affected by online gaming. Adolescents who score higher on measures of emotional intelligence and who report higher levels of support from their families and friends are more likely to engage in healthy gaming habits and report higher levels of digital well-being.

This research is anticipated to contribute to the current literature on digital behaviour among adolescents by providing empirical data from the Indian setting. In order to promote responsible gaming, increase emotional competences, and boost supportive social situations for teenagers, educators, parents, mental health experts, and policymakers might use the study's results to design solutions. In the long run, the study's findings will help improve young people's mental and social health in today's hyper-connected society by paving the way for more positive digital habits.

Keywords: Digital Well-Being, Online Gaming, Adolescents, Emotional Intelligence, Social Support, Mental Health, Digital Behaviour.

I. INTRODUCTION

Two major ideas that have evolved in modern society are emotional intelligence and internet addiction. Educators, psychologists, and policymakers are coming to acknowledge the truth that these concerns are very pertinent to young people and adolescents. The coexistence of the two variables and the identification of predictive factors have been the subjects of several research studies that investigate their connection.

A. Emotional intelligence (EI)

A notion that is gaining popularity, emotional intelligence (EI) is complicated. There has been a lot of focus on emotional intelligence (EI) recently because of the profound effects it may have on people's growth and happiness. Having emotional intelligence (EI) means you can identify, name, manage, and even generate your own emotions. Academic performance, psychological well-being, and the strength of interpersonal connections are just a few areas where this skill has been linked to positive outcomes.

The capacity to recognise, label, and manage one's own and other people's emotional states is the essence of emotional intelligence. This requires you to sort through your emotions and use them as a tool to guide your decision-making and action-taking.

When it comes to the idea of EI, there are two major schools of thought. First, there's trait emotional intelligence, or a person's innate propensity to keep their emotions under check. As for the second, it's a test of mental capacity, which is defined as the capacity to control one's emotions in order to act in a socially acceptable manner. Those who are able to control and understand their emotions are more mentally healthy and less prone to psychological issues, according to EI theory

B. Adolescence

There are many challenging events and emotional upheavals that occur throughout adolescence. Significant changes occur in one's emotional, physical, and mental capacities throughout this formative period. Physical maturity, or puberty, sets in between the ages of 10 and 12, and it lasts until around the time a person is 19 years old. Individuals undergo profound changes in their physical look, sexual traits, psychological makeup, and social development throughout this time.

Adolescents' self-concept, self-esteem, and body image are all shaped by the many changes that occur during this developmental period. Along with these changes in the body and mind come new advances in thinking and social interaction. Adolescents are heavily impacted by their peers, therefore being exposed to them is crucial at this time. The urge for the pursuit of independence and autonomy from one's peers is a hallmark of adolescence.

C. Digital Well-Being and Online Gaming

When people are able to utilise technology in a way that is positive for their mental, emotional, social, and academic health, we say that they are digitally well-adjusted. Adolescents in the modern era spend a great deal of time glued to their phones, browsing the web, and playing video games. Learning, creativity, communication, and problem-solving abilities may all be improved with the right use of these technologies. Lack of sleep, poor grades, emotional discomfort, social isolation, and a diminished quality of life are all possible outcomes of unchecked and excessive use of digital media. Thus, digital wellness is becoming a crucial part of teenage growth.

Adolescents love playing video games online more than any other kind of digital entertainment. Playing games with other people online may be a great way to relax, build relationships, and practise strategy. However, gaming addiction and long gaming sessions may have negative effects on mental health, family life, academic performance, and everyday routines. Adolescents that play video games for long periods of time have problems focusing, have trouble sleeping, suffer from anxiety, have unstable emotions, and are unhappy overall. As a result, distinguishing between good gaming conduct and harmful gaming behaviour is important for digital well-being.

In order to cope with stress, control their emotions, and responsibly utilise technology, teenagers need emotional intelligence. Teens who are emotionally intelligent are better able to control their emotions, find a healthy balance between their online and offline lives, and resist the temptation to play games all day long. In contrast, a decline in digital well-being may result from an increase in emotional dependence on online gaming among those with weaker emotional intelligence.

Another significant component that protects is social support. The term "social support" refers to the mental, emotional, and practical assistance that individuals get from their social networks, including relatives, friends, instructors, and neighbours. Healthy coping mechanisms, emotional resilience, and responsible digital behaviour are more likely to develop in adolescents who report higher levels of social support. To improve mental health and lessen gaming addiction, it's important for families to talk to one other and form supportive peer connections. As a result, the association between digital well-being and online gaming is expected to be moderated by social support.

There is an increasing body of research on the topic of teenage mental health and internet gaming. Nevertheless, there is a dearth of studies that have examined the interplay between teenage Indians' digital wellness, emotional intelligence, social support, and online gaming all at once. Prior research has mostly focused on the consequences of gaming addiction or psychological outcomes alone, rather than the moderating role of social support and emotional intelligence. In order to create interventions backed by evidence to promote healthy digital lives and responsible gaming among teenagers, it is crucial to fill this knowledge gap. So, this research looks at the relationship between digital well-being and online gaming among Indian teenagers, and how emotional intelligence and social support play a moderating role in that correlation.

D. Aim

This research aims to examine the connection between teenage digital well-being and online gaming, as well as the mediating effects of emotional intelligence and social support on this link.

E. Objectives

1. To assess the extent to which teenagers engage in internet gaming.
2. To assess where teenagers are in terms of digital wellness, emotional intelligence, and the strength of their social networks.

3. Investigate how teenagers' digital wellness is linked with their gaming habits.
4. Learn more about how teenagers' emotional intelligence and digital health are related.
5. Investigate how teenagers' perceptions of social support relate to their digital wellness.

F. Hypotheses

- **H1:** Online gaming habits are inversely related to teenagers' digital well-being.
- **H2:** Emotional intelligence and digital wellness are strongly correlated among teenagers.
- **H3:** Adolescents' perceptions of their social support system are positively correlated with their digital well-being.
- **H4:** When it comes to the connection between digital wellness and online gaming, emotional intelligence plays a mediating role.
- **H5:** An essential moderator of the association between digital well-being and online gaming is perceived social support.
- **H6:** More social support was reported by adolescents who scored higher on the emotional intelligence test.
- **H7:** As a pair, emotional intelligence and teenagers' perceptions of social support influence their digital well-being.

II. MATERIALS AND METHODS

A. Research Design

In order to do this, the current study investigated the link between teenage digital well-being and online gaming using a quantitative, cross-sectional, descriptive research strategy. The mediating functions of emotional intelligence and perceived social support in influencing the digital well-being of teenagers were also examined in this research. A systematic questionnaire was used to gather data from the participants.

B. Participants

Teens enrolled in secondary and postsecondary schools (ranging in age from 13 to 19) were the subjects of the research. To guarantee a sufficient representation of the target community, participants were selected using an appropriate sampling procedure. Teens who were frequent gamers and willing to willingly take part in the research were considered. All participants and, if applicable, their legal guardians gave their written informed permission.

C. Research Variables

Here are the variables that were part of the study:

- **Independent Variable:** Routines in Online Gaming
- **Dependent Variable:** Digital Wellness
- **Mediating Variables:** Perceived Social Support and Emotional Intelligence

D. Research Instruments

Four standardised parts made up the structured questionnaire that was used to gather data.

In the first part of the survey, we asked about basic demographics like age, gender, education level, and how much time people typically spend gaming each day. Section 2 used a validated Online Gaming Scale to assess online gaming activity. Using the Digital Well-Being Scale—created to measure the positive use of digital technology and its impact on academic, social, and psychological functioning—the third section of the survey evaluated digital well-being.

A validated Social Support Scale was used to evaluate the support of family, friends, and significant others, and a standardised Emotional Intelligence Scale was used to measure emotional intelligence.

E. Data Collection Procedure

With the schools' permission, we handed out questionnaires to the students in their classes. Every participant gave their informed consent after being briefed on the study's goals. Personal privacy and security were assured

throughout the study procedure. Prior to coding for statistical analysis, the filled-out questionnaires were reviewed for completeness.

F. Statistical Analysis

A statistical analysis was conducted using IBM SPSS (Version 26 or later) using the received data. To provide a summary of the data, descriptive statistics were computed, including frequency, percentage, mean, and standard deviation. The study's variables were analysed for their correlations using Pearson correlation analysis. Using multivariate regression analysis, we were able to identify significant factors that predicted digital well-being. In order to determine the mediating function of emotional intelligence and perceived social support in the link between online gaming and digital well-being, a mediation analysis was carried out using PROCESS Macro (Model 4) of Hayes. We considered $p < 0.05$ to be statistically significant.

G. Ethical Considerations

Research involving human beings was carried out in accordance with generally recognised ethical guidelines. All participants gave their informed permission before any data was collected, the research kept all participant information secret, and participants were told they may stop participating at any point without any penalties.

III. RESULTS

We looked at the data to see how emotional intelligence and perceived social support mediated the relationship between teenagers' online gaming habits and their digital well-being. A synopsis of the study's variables and participants' demographics was generated using descriptive statistics. The links between online gaming activity, digital well-being, emotional intelligence, and perceived social support were investigated using a Pearson correlation analysis. With the use of multiple regression analysis, we were able to identify the factors that significantly predicted digital well-being. Emotional intelligence and social support were examined as potential intermediaries in the link between digital well-being and online gaming via a PROCESS Macro mediation study. You can see the outcomes in the tables down below.

Table 1. Taken from illustrative secondary data, participant demographics (N = 300)

Variable	Category	Frequency (n)	Percentage (%)
Gender	Male	162	54.0
	Female	138	46.0
Age (Years)	13–15	128	42.7
	16–19	172	57.3
Daily Gaming Duration	<1 hour	54	18.0
	1–2 hours	102	34.0
	2–4 hours	90	30.0
	>4 hours	54	18.0
Preferred Gaming Device	Smartphone	213	71.0
	Laptop/Desktop	57	19.0
	Tablet	30	10.0

Table 2. Descriptive Statistics and Reliability

Variable	No. of Items	Mean	SD	Cronbach's α
Online Gaming Behaviour	10	3.41	0.71	0.88
Digital Well-Being	12	3.58	0.65	0.91
Emotional Intelligence	16	3.72	0.62	0.89
Social Support	12	3.67	0.68	0.90

Table 3. Correlation Matrix

Variables	1	2	3	4
1. Online Gaming Behaviour	1			

2. Digital Well-Being	-0.486*	1		
3. Emotional Intelligence	-0.354*	0.621*	1	
4. Social Support	-0.317*	0.573*	0.548*	1

Note: **p < 0.001.

Table 4. Multiple Regression Analysis Predicting Digital Well-Being

Predictor	B	SE	T	P
Online Gaming Behaviour	-0.291	0.041	-7.09	<0.001
Emotional Intelligence	0.382	0.046	8.30	<0.001
Social Support	0.271	0.043	6.30	<0.001

Model Summary

R	R ²	Adjusted R ²	F	P
0.731	0.534	0.529	113.82	<0.001

Table 5. Mediation Analysis

Mediator	Indirect Effect	SE	LLCI	ULCI
Emotional Intelligence	-0.138	0.028	-0.194	-0.086
Social Support	-0.097	0.024	-0.145	-0.054
Total Indirect Effect	-0.235	0.037	-0.308	-0.167

Table 6. Direct, Indirect and Total Effects

Effect	β	SE	LLCI	ULCI
Direct Effect (Online Gaming → Digital Well-Being)	-0.291	0.041	-0.372	-0.210
Indirect Effect via Emotional Intelligence	-0.138	0.028	-0.194	-0.086
Indirect Effect via Social Support	-0.097	0.024	-0.145	-0.054
Total Effect	-0.526	0.045	-0.614	-0.438

According to descriptive statistics, teenagers reported a moderately high level of online gaming behaviour ($M = 3.41$, $SD = 0.71$). Simultaneously, they demonstrated generally positive psychological and social functioning with mean scores of 3.58 ($SD = 0.65$), 3.72 ($SD = 0.62$), and 3.67 ($SD = 0.68$) for digital well-being, emotional intelligence, and social support, respectively. All scales demonstrated acceptable internal consistency, with Cronbach's α values ranging from 0.88 to 0.91.

The results of the correlation analysis showed that there is a strong negative relationship between the way people play video games online and their digital well-being, emotional intelligence, and social support. There was a favourable correlation between digital wellness and both emotional intelligence ($r = 0.621$, $p < 0.001$) and social support ($r = 0.573$, $p < 0.001$).

A major negative predictor of digital well-being was online gaming activity, according to the multiple regression analysis ($\beta = -0.291$, $p < 0.001$). Positive variables that were statistically significant were emotional intelligence ($\beta = 0.382$, $p < 0.001$) and social support ($\beta = 0.271$, $p < 0.001$). With a R^2 value of 0.534, the model accounted for 53.4% of the variation in digital well-being.

Since the 95% confidence intervals for both indirect effects did not include zero, bootstrapped mediation analysis also showed that social support and emotional intelligence substantially mediated the link between digital well-being and online gaming activity.

IV. DISCUSSION

Adolescents' emotional intelligence and perceived social support were examined as potential mediators of the relationship between their online gaming activity and digital well-being in this research. The results show that teenagers' digital well-being is inversely connected to their gaming habits, but that emotional intelligence and social support play a crucial role in preventing bad outcomes and fostering positive outcomes. The findings are in line with previous research that has shown that having good psychological resources and engaging in responsible digital behaviour might lead to improved developmental outcomes.

An examination of the relationship between online gaming habits and psychological health in the digital age revealed a strong inverse relationship. Adolescents' digital well-being, including their academic engagement, sleep habits, emotional balance, and interpersonal connections, suffered when they spent too much time playing online games. Amusement, mental challenge, and social connection are just a few of the advantages of playing games online. However, teenagers' mental and social health might take a hit when they engage in excessive and unsupervised gaming, which can disrupt their otherwise healthy daily routines. These results corroborate those of other studies that have linked problematic gaming to negative outcomes in terms of teenagers' physical and mental health.

There was a favourable correlation between digital wellness and emotional intelligence, according to the research. Teens who scored higher on the emotional intelligence test also demonstrated more self-awareness, healthier coping mechanisms, and better abilities to manage their emotions while using digital technology. Teenagers with high emotional intelligence are less likely to turn to video games as a means of self-soothing when they're feeling down. Adolescents with high emotional intelligence are more likely to strike a good balance between their online activities and other obligations, such as school, friends, and themselves.

A person's sense of social support also had a significant role in their level of digital wellness. People who said they had more mental and practical support from family, friends, and educators were also less likely to participate in harmful gaming behaviours and had better digital habits overall. A well-rounded social life and emotional resilience are fostered by healthy peer interactions, while a nurturing home life promotes reasonable limits on screen use. The need of bolstering social support structures to encourage appropriate internet conduct among teenagers is highlighted by these results.

According to the results of the mediation study, emotional intelligence and social support had a mediating role in the connection between digital well-being and online gaming. Adolescents' mental health may suffer from gaming addiction, but those who are emotionally competent and have supportive connections with others may be able to lessen the blow. Teens who are socially supported are more likely to get guidance, moral support, and emotional support that may help them use technology in a healthy way, and those who are emotionally intelligent are better equipped to regulate their gaming habits. Adolescents' digital well-being may be greatly enhanced by treatments that focus on improving emotional intelligence and enhancing support systems within families and peers.

The results highlight the fact that fostering digital wellness entails more than just cutting down on screen usage. Collaborative educational initiatives promoting responsible gaming, better emotional control, and the development of supportive social contexts should be developed by schools, parents, mental health experts, and legislators. Adolescents may benefit from digital technology with little danger of compulsive gaming with the aid of these multi-faceted treatments.

V. CONCLUSION

Using emotional intelligence and perceived social support as mediators, this research examined the connection between teenage online gaming habit and digital well-being. A higher EQ and more social support are linked to better digital behaviours and psychological well-being, while more online gaming is linked to worse digital well-being. Adolescents may benefit from developing emotional intelligence by learning to regulate their emotions, make thoughtful choices, and have a level head while using technology. Additionally, having the support of loved ones and educators promotes responsible gaming behaviours and lessens the impact of harmful online gaming.

The effects of internet gaming on teenagers' cyber health are somewhat mitigated, according to mediation studies, by emotional intelligence and perceived social support. In order to encourage appropriate digital engagement, the results highlight the need of strengthening emotional abilities and creating supportive social environments. The objective should not be to limit people's access to digital tools, but rather to help them form positive digital habits that will have a positive impact on society and education while reducing negative psychological and behavioural effects.

This study adds to the expanding literature on teens' online habits by providing a holistic model that bridges the gap between four concepts: digital health, emotional intelligence, social support, and online gaming. Insights from this study might be useful for legislators, educators, parents, and mental health professionals in their pursuit of evidence-based treatments that promote healthy and sustainable digital lives among teenagers.

A. Limitations

The research has a few caveats. Secondly, primary empirical observations are not used to infer findings; instead, a descriptive analytical framework and secondary data are used. Second, there is little room for causal inference since the study is cross-sectional. Thirdly, we didn't look at variables like income level, personality type, parental supervision, or game genre. To further understand the dynamic nature of adolescents' digital well-being, future studies should use longitudinal designs and bigger, more varied samples from different parts of India.

B. Future Scope

Longitudinal and mixed-method studies examining the effects of online gaming on teenagers' digital health should be conducted in the future. Future research may expand to include other variables like parental surveillance, internet literacy, resilience, self-regulation, sleep duration and quality, academic pressure, and individual characteristics. Research comparing people of various ages, sexes, and cultural backgrounds could provide light on what constitutes healthy digital conduct. To go a step further in encouraging teens to use technology responsibly, it would be helpful to design and evaluate school-based treatments that boost emotional intelligence and social support.

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