

“Assess Psychological Effects of Online Gaming Among Teenagers Studying in Selected Schools, Maharashtra”

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Abstract—Background of the study: Adolescence is an important period of physical, psychological, emotional and social development. During this stage, teenagers are increasingly exposed to digital technology and online activities. Online gaming has become an important part of the daily lives of many teenagers because it provides entertainment, social interaction and, in some situations, stress relief. Although online gaming may provide certain benefits such as improvement in problem-solving, teamwork and hand-eye coordination, excessive or problematic gaming may be associated with psychological and social difficulties. These may include anxiety, frustration, sleep disturbance, aggression, social isolation, difficulty controlling gaming, and problems in academic and social activities. Aim: To Find out the level of psychological effects of online gaming among teenagers studying in selected schools, Maharashtra. Objectives: 1) To assess psychological effects of online gaming among teenagers studying in selected schools. 2) To find out association between psychological effects of online gaming and selected demographic variables among teenagers studying in selected schools. Methodology: A quantitative approach and Descriptive research design were used to carry out this study. The teenagers were selected by purposive sampling technique where data was collected by using Modified structure rating scale. The analysis was done by using descriptive and inferential statistics. Result: The present study was undertaken to assess the psychological effects of online gaming among teenagers studying in selected schools, Maharashtra. A quantitative research approach with a descriptive research design was adopted, and a total of 423 teenagers were selected using a non-probability sampling technique. The psychological effects of online gaming were assessed using a Modified Structured Rating Scale consisting of 30 items covering anxiety, frustration, sleep disturbance, aggression, and social

isolation. The study revealed that the highest percentage of teenagers (60%) belonged to the age group of 15–16 years, regarding gender, 57.7% were male, In relation to religion, the majority (71.9%) were Hindu, regarding type of family, the majority (71.6%) belonged to nuclear families, regarding type of school, the majority (78%) of teenagers were studying in private schools, In relation to monthly family income, the majority (66.2%) had a monthly family income below ₹10,000, regarding studying class, 51.5% were studying in secondary education, With regard to screen duration, the majority (64.3%) spent 3–5 hours on screen per day, The assessment of psychological effects of online gaming revealed that 78% of teenagers had mild psychological effects, with a mean score of 45.34 ± 10.92 and mean percentage score of 30.23 ± 7.28 . The study further showed a statistically significant association between age and psychological effects, with a calculated chi-square value of $\chi^2 = 9.07$ and $p = 0.028$, which was significant at the 0.05 level. Hence, age was significantly associated with the psychological-effect score. However, no statistically significant association was found between gender and psychological effects, with $\chi^2 = 0.15$ and $p = 0.69$ a statistically significant association was found between studying class and psychological effects, with a calculated chi-square value of $\chi^2 = 18.01$ and $p = .0001$

Index Terms—Assess, Psychological effect, online gaming, teenagers, schools.

I. INTRODUCTION

Teenagers who are going through a time of big changes in their body and mind. This period starts when they hit puberty and lasts until they become legally teens. According to the World Health

Organization, teenagers are people aged between 13 and 19 years old.¹ The psychological impact of online gaming in India shows different rates of Internet Gaming Disorder (IGD) across various groups. Research conducted on college students in Goa indicated an 8% prevalence rate, whereas a study involving medical college students identified considerable psycho social issues such as mood disorders, depression, sleep disturbances, and anxiety linked to addictive gaming habit. The differences in prevalence rates and related psychological impacts can be linked to variations in study populations, methods, and regional influences. Numerous studies have investigated how online gaming affects cognitive, emotional, and social development in young people, uncovering both beneficial and detrimental outcomes². In recent years, online gaming has become a significant aspect of the daily lives of teenagers, especially with the rise of internet accessibility and the development of more interactive and immersive gaming platforms. Teenagers, who are at a crucial stage of psychological and emotional development, often engage in online gaming as a form of entertainment, socialization, and sometimes stress relief. However, concerns have emerged about the psychological effects of online gaming on this age group, particularly in relation to issues such as addiction, anxiety, aggression, and social isolation³.

II. OBJECTIVES

The objectives of study are;

1. To assess psychological effects of online gaming among teenagers studying in selected schools.
2. To find out association between psychological effects of online gaming and selected demographic variables among teenagers studying in selected schools.

III. MATERIALS AND METHODS

A quantitative approach was adopted and a non-randomized control group design was used for this study. The study was carried out in selected Schools of Maharashtra. The settings were chosen based on accessibility, administrative support, and an adequate

sample size. A purposive sampling technique was used to select 423 teenagers selected schools of Maharashtra. Written permission was obtained from concerned authorities, and consent was taken from participants. The data was analysed using SPSS software. Statistical Analysis inferential statistics. Demographic variables and knowledge scores were analysed using frequency, percentage, mean, mean percentage, and standard deviation. Inferential analysis was performed using a paired 't' test to evaluate pre-test and post-test knowledge scores within groups, one-way ANOVA.

IV. RESULT

Fig 4. 1: Percentage wise distribution of Teenagers according to their demographic characteristics.

Demographic Variables	No of Teenagers	Percentage (%)
Age(yrs)		
13-14 yrs	53	12.5
15-16 yrs	254	60.0
17-18 yrs	87	20.6
18-19 yrs	29	6.9
Gender		
Male	179	42.3
Female	244	57.7
Religion		
Hindu	304	71.9
Muslim	56	13.2
Christian	38	9.0
Buddhist	25	5.9
Other	0	0
Type of family		
Nuclear	303	71.6
Joint	89	21.0
Extended	31	7.3
Type of school		
Government School	93	22.0
Private School	330	78.0
Monthly family income (Rs)		
Below 10000 Rs	280	66.2
10001-20000 Rs	55	13.0
20001-30000 Rs	88	20.8
≥30001 Rs	0	0
Studying Class		
Primary Education	53	12.5
Secondary Education	218	51.5
Higher Secondary Education	152	35.9
Time duration spent on screen		
≤2 hours	129	30.5
3-5 hours	272	64.3
6-8 hours	22	5.2
≥9 hours	0	0

Table 2: Assessment of level of psychological effects of online gaming among teenagers studying in selected schools of the city

Level of Psychological Effects	Score Range	Level of Psychological Effects Score	
		No of Teenagers	Percentage
Mild Impact	30-60	330	78
Moderate Impact	61-90	93	22
Severe Impact	91-120	0	0
Profound Impact	121-150	0	0
Minimum score		34	

Maximum score	75
Mean Psychological Effects score	45. 34±10. 92
Mean % Psychological Effects Score	30. 23±7. 28

The above table shows that 78% of Teenagers had mild impact and 22% of them had modern impact of psychological effects. Minimum Psychological Effects score was 34 and maximum Psychological Effects score was 75. Mean Psychological Effects score was 45. 34±10. 92 mean percentage of Psychological Effects score was 30. 23±7. 28.

Table: 3 Association of the level of psychological effects of online gaming among teenagers studying in selected schools of the city in relation to demographic variables

Age in year	No of Teenagers	Mild Impact	Moderate Impact	Severe Impact	Profound Impact	χ^2 -value	p-value
13-14 yrs	53	45	8	0	0	9. 07	0. 028 S, p<0. 05
15-16 yrs	254	196	58	0	0		
17-18 yrs	87	72	15	0	0		
18-19 yrs	29	17	12	0	0		
Studying School	No of Teenagers	Mild Impact	Moderate Impact	Severe Impact	Profound Impact	χ^2 -value	p-value
Primary Education	53	53	0	0	0	18. 01	0. 0001 S, p<0. 05
Secondary Education	218	167	51	0	0		
Higher Secondary Education	152	110	42	0	0		

The tabulated ' χ^2 ' values was 3. 84(df=1) which is higher than the calculated ' χ^2 ' i. e. 0. 15 at 5% level of significance. Also, the calculated 'p'=0. 69 which was higher than the acceptable level of significance i. e. 'p'=0. 05. Hence it is interpreted that gender of Teenagers is statistically not associated with their Psychological Effect Score. The tabulated ' χ^2 ' values was 5. 99(df=2) which is less than the calculated ' χ^2 ' i. e. 18. 01 at 5% level of significance. Also, the calculated 'p'=0. 0001 which was less than the acceptable level of significance i. e. 'p'=0. 05. Hence it is interpreted that Studying School of Teenagers is statistically associated with their Psychological Effect Score.

V. DISCUSSION

The present study was undertaken to assess the psychological effects of online gaming among teenagers studying in selected schools, Maharashtra. A quantitative research approach with a descriptive research design was adopted, and a total of 423 teenagers were selected using a non-probability

sampling technique. The psychological effects of online gaming were assessed using a Modified Structured Rating Scale consisting of 30 items covering anxiety, frustration, sleep disturbance, aggression, and social isolation. The study revealed that the highest percentage of teenagers (60%) belonged to the age group of 15–16 years, regarding gender, 57. 7% were male, In relation to religion, the majority (71. 9%) were Hindu, regarding type of family, the majority (71. 6%) belonged to nuclear families, regarding type of school, the majority (78%) of teenagers were studying in private schools, In relation to monthly family income, the majority (66. 2%) had a monthly family income below ₹10, 000, regarding studying class, 51. 5% were studying in secondary education, With regard to screen duration, the majority (64. 3%) spent 3–5 hours on screen per day, The assessment of psychological effects of online gaming revealed that 78% of teenagers had mild psychological effects, with a mean score of 45. 34 ± 10. 92 and mean percentage score of 30. 23 ± 7. 28. The study further showed a statistically significant association between age and psychological effects,

with a calculated chi-square value of $\chi^2 = 9.07$ and $p = 0.028$, which was significant at the 0.05 level. Hence, age was significantly associated with the psychological-effect score. However, no statistically significant association was found between gender and psychological effects, with $\chi^2 = 0.15$ and $p = 0.69$. A statistically significant association was found between studying class and psychological effects, with a calculated chi-square value of $\chi^2 = 18.01$ and $p = 0.0001$.

VI. CONCLUSION

After the detailed analysis, this study leads to the following conclusion. The teenagers studying in selected schools of Maharashtra experienced mild to moderate psychological effects due to online gaming. The majority of teenagers experienced mild psychological effects, whereas some experienced moderate psychological effects. No severe or profound psychological effects were observed. The study further concluded that age and studying class were significantly associated with the psychological effects of online gaming, whereas gender, religion, type of family, type of school, monthly family income, and time duration spent on screen were not significantly associated with the psychological effects.

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