

A QUASI EXPERIMENTAL STUDY TO ASSESS THE EFFECTIVENESS OF STRUCTURED AWARENESS TRAINING PROGRAMME (SATP) ON REDUCING THE NEGATIVE PSYCHOLOGICAL AND PHYSIOLOGICAL EFFECTS OF ONLINE GAMING AMONG ADOLESCENTS IN SHYAM SUNDAR JAMUNADEEN INTER COLLEGE , FAZULLAGANJ IN LUCKNOW , U.P.

1. Miss Shambhavi Srivastava, 2.Mrs. Rajani Karsayal

1.M.Sc. Nursing Student, 2. Professor

Mental Health Nursing

Bora Institute of Allied Health Sciences , Lucknow , India

Abstract : Background of the study: Excessive gaming can lead to online gaming addiction, a behavioral disorder characterized by compulsive use of games that interferes with daily life, work, and relationships Aim: “The aim of the study is to assess the Effectiveness of structured awareness teaching programme regarding Reducing the Negative Psychological and Physiological Effects of Online Gaming Among Adolescents in Shyam Sundar Jamunadeen Inter College , Fazullaganj in Lucknow ,U.P.” Objectives: To assess the knowledge Reducing the Negative Psychological and Physiological Effects of Online Gaming Among Adolescents in Shyam Sundar Jamunadeen Inter College , Fazullaganj in Lucknow ,U.P.” Methodology- A Quantitative approach with quasi experimental (one-group pre-test post-test design) research approach was used . Non probability purposive , convenient sampling was used for select the 100 Adolescents who were registered in Shyam Sundar Jamunadeen Inter College , Fazullaganj in Lucknow. Self – structured questionnaire was administered with pen and paper method to collect the data. Pre – test sampling was conducted on the same day Structured Teaching Programme was given & after a period of 1 month post – test was observed. Result and findings- Data analyzed by using SPSS version 26 (Descriptive and Inferential Statistics were used mean , median , range , frequency , percentage , standard deviation , chi – square & paired ‘t’ test). The data represented that the mean pre-test knowledge score (5.88 ± 3.57) regarding negative physiological and psychological effect of online gaming among adolescents (aged 10-19 years) was less than the mean post-test knowledge score (27.03 ± 2.31), also showed the effectiveness of structured teaching programme . Chi square test revealed that there There was no statistical association was found between knowledge score with age , gender , class , residence , type of family, Parent/guardian occupation , Socioeconomic status, Duration of gaming per day , mode of gaming , What kind of game prefer to play . Conclusion: the finding of the study reveals that after the implementation of structured awareness teaching programme the knowledge score level was improved. Hence the structured awareness teaching programme was effective.

INTRODUCTION

Online gaming has rapidly evolved into a dominant form of entertainment worldwide, reshaping social interactions, cultural practices, and technological innovation.¹The global gaming industry has expanded significantly, with millions of players engaging in immersive multiplayer environments that foster both collaboration and competition (Ntsama et al., 2025). Historically, online gaming emerged in the 1970s with simple network-based games, but technological advances in the 1990s and 2000s transformed it into a mainstream cultural phenomenon. Excessive online gaming can lead to significant physiological health problems, particularly when gameplay extends beyond three hours daily. Excessive online gaming can lead to physiological health hazards because prolonged exposure to screens, repetitive movements, and sedentary behavior place strain on multiple body systems. From a physiological perspective, continuous gaming sessions often result in ocular fatigue due to sustained visual focus, which disrupts normal blinking patterns and contributes to dry eyes, blurred vision, and headaches. Similarly, the musculoskeletal system is affected by repetitive hand and wrist movements, poor posture, and static sitting positions, leading to repetitive strain injuries, neck stiffness, and chronic back pain. The endocrine and neurological systems are also impacted, as late-night gaming interferes with circadian rhythms, suppressing melatonin secretion and causing sleep disturbances. This hormonal imbalance reduces immune efficiency and affects growth in adolescents.

NEED OF THE STUDY.

Online gaming has rapidly emerged as one of the most common recreational activities among adolescents. With increasing accessibility to smartphones, high-speed internet, and gaming platforms, children aged 10–19 years are spending a significant amount of time engaging in online games. 488 million online gamers in 2024 . While gaming offers opportunities for entertainment, creativity, and social connection, its **negative psychological and physiological effects** have become a growing public health concern. Excessive gaming is associated with **addiction, depression, anxiety, aggression, and social withdrawal**, while prolonged sedentary behavior contributes to **eye strain, musculoskeletal pain, obesity, and cardiovascular risks**. From a **physiological perspective**, the disruption of circadian rhythms, hormonal imbalance, and reduced physical activity highlight how gaming can alter normal body functions. Psychologically, compulsive gaming interferes with academic performance, emotional regulation, and interpersonal relationships, creating long-term consequences for mental well-being. The **scale of the problem** is significant: India alone accounts for nearly 20% of the global gaming community, with adolescent gamers spending increasing hours online. Yet, national policies remain fragmented, focusing more on platform regulation than on age-specific health guidelines. In contrast, the World Health Organization (WHO) has recognized “gaming disorder” and issued structured recommendations on screen time and child development. Projected to reach 517 million in 2025 .

3.1 Population and Sample

A population is the entire aggregation of cases that meet designated set off criteria, the need of defining population for research project rise from the requirement to specify the group to which the end result of the study is applied.

For the present study population consisted of adolescents (aged 10-19 years) studies in Shyam Sundar Jamunadeen Inter College , Fazullaganj , Lucknow , (U.P.)

In the prevailing study, the sample size the sample size will be 100 adolescents.

3.2 Data and Sources of Data

Instruments, developed to gather necessary data for study were divided in three sections:

Section A: Description of the demographic Performa.

Section B: To assess the knowledge regarding negative physiological and psychological effects of online gaming among adolescents . studies in Shyam Sundar Jamunadeen Inter College , Fazullaganj , Lucknow , (U.P.)

Section C: To assess the effectiveness of structured teaching plan

Data were collected from 02/march/2026 to 30/march/2026 at Shyam Sundar Jamunadeen Inter College , Faizullaganj , Lucknow ,U.P after obtaining ethical permission from management. It turned into finished on 100 adolescents respectively, through a purposive sampling technique.

3.3 Theoretical framework

Variables of the study contains dependent and independent variable. The study used pre-specified method for the selection of variables.

RESEARCH METHODOLOGY

The methodology section outline the plan and method that how the study is conducted. This includes Universe of the study, sample of the study, Data and Sources of Data, study's variables and analytical framework. The details are as follows;

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The prepared research tool along with problem statement, objectives, operational definition, criteria checklist were distributed to 5 experts from Mental Health Nursing, 3 from psychiatrist and 1 from English expert and 1 from Hindi expert for content validation. The item level content validity index (CVIs) for demographic variable ranged from 1 to 0.8 & the scale level CVI using the averaging approach was 0.83. The item level content validity index (CVIs) for structured knowledge Questionnaire ranged from 1 to 0.8 & the scale level CVI using the averaging approach was 0.93. Reliability was found out by using test – retest method for knowledge and the tool was found reliable ($r = 0.94$).

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Conceptual Framework (Based on Ludwig von Bertalanffy's General System Theory)

Input → Process → Output → Feedback

1. INPUT

These are the factors influencing the problem:

A. Demographic Variables

- Age
- Gender
- Class
- Residence
- type of family
- Parent/guardian occupation
- Socioeconomic status
- duration of gaming
- Mode of gaming
- What kind of game prefer to play

B. Baseline Problem Variables (Before SATP)

1. Negative Psychological Effects
 - Anxiety
 - Depression
 - Stress
 - Irritability
 - Social withdrawal
2. Negative Physiological Effects
 - Headache
 - Eye strain
 - Sleep disturbance
 - Poor posture & body pain
 - Fatigue

2. PROCESS (Intervention)

Structured Awareness Training Programme (SATP) The SATP includes:

- Sessions on harmful effects of excessive gaming
- Time-management strategies
- Stress-management techniques
- Self-regulation and digital discipline
- Relaxation exercises
- Parental guidance modules
- Group discussions and feedback

3. OUTPUT

Immediate Outcomes (Post-test):

- Improved awareness about online gaming risks
- Reduction in psychological effects
- Reduction in physiological complaints
- Better time management
- Positive behavioral changes

4. FEEDBACK (Evaluation Loop)

- Post-test scores compared with pre-test
- Determines effectiveness of SATP
- If outcomes improve → SATP effective
- If not → Modify and re-administer

3.4 Statistical tools

This section elaborates the proper statistical/econometric/financial models which are being used to forward the study from data towards inferences. The detail of methodology is given as follows.

3.4.1 Descriptive Statistics

Frequency and Percentage distribution of socio-demographic variable.

- majority i.e. 30 (30%) of the participants were belongs to 17 years, 20 (20%) were belongs to 16 years , 19 (19 %) were belongs to 18 years, 16 (16%) were belongs to 15 year and 15 (15%) were belongs to 19 years .
- majority 61 (61%) of the participants were male and remaining 39 (39%) of the participants were female.
- majority i.e. 38 (38%) of the participants belonged to 12th class , 35 (35%) belonged to 11th class and 27 (27%) belonged to 10th class.
- majority i.e. 74 (74%) of the participants were from urban area and have 26 (26%) were from rural area.
- majority i.e. 80 (80%) of the participants were having nuclear family and 20 (20 %) of the participants were having joint family.
- majority i.e. 61 (61%) of the participant's parents were having private job , 27 (27%) of the participant's parents were having government job and 12 (12%) of the participant's parents were having business as their occupation.
- majority i.e. 78 (78%) of the participants were having middle socioeconomic status , 17 (17 %) of the participants were having low socioeconomic status and 05 (05 %) of the participants were having high socioeconomic status.
- majority i.e. 78 (78%) of the participants were having 1-2 hours , 09 (09 %) of the participants were having 3-4 hours , 07 (07%) of the participants were having More than 6 hours and 06 (06%) of the participants were having 5-6 hours duration of gaming per day .
- majority i.e. 94 (94%) of the participants were having mobile , 05 (05 %) of the participants were having PC, 01 (01%) of the participants were having Tab. as their Mode of Gaming.
- majority i.e. 50 (50%) of the participants were having puzzle , 25 (25 %) of the participants were having adventure, 13 (13%) of the participants were having education and 12 (12%) the participants were having action type of game.
- The data represented majority of, 92 (92 %) adolescents (aged 10-19 years) had poor knowledge regarding negative physiological and psychological effect of online gaming and 08 (08 %) adolescents (aged 10-19 years) had average knowledge regarding negative physiological and psychological effect of online gaming.
- The data represented majority of, 70 (70 %) adolescents (aged 10-19 years) had good knowledge regarding negative physiological and psychological effect of online gaming and 28 (28 %) adolescents had average knowledge regarding negative physiological and psychological effect of online gaming and 02 (02 %) adolescents had poor knowledge regarding negative physiological and psychological effect of online gaming.
- The data represented that mean pre-test knowledge score (5.88 ± 3.57) regarding negative physiological and psychological effect of online gaming among adolescents was less than the mean post-test knowledge score (27.03 ± 2.31), hence it shows the effectiveness of structured teaching program regarding negative physiological and psychological effect of online gaming among adolescents .

3.4.2. Frequency and percentage distribution of pre-test knowledge score regarding negative physiological and psychological effect of online gaming .

N=100

S.No	Level of knowledge	Frequency F	Percentage %
1	0-10 – Poor Knowledge <33%	92	92 %
2	11-20- Average Knowledge 34-66%	08	08 %

3	21-30- Good Knowledge 67-100%	00	00
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Table represented that majority of, 92 (92 %) adolescents had poor knowledge regarding negative physiological and psychological effect of online gaming and 08 (08 %) adolescents had average knowledge regarding negative physiological and psychological effect of online gaming.

3.4.2.1 Paired t- test

the mean pre-test knowledge score (5.88 ± 3.57) regarding negative physiological and psychological effect of online gaming among adolescents was less than the mean post-test knowledge score (27.03 ± 2.31), hence it shows the effectiveness of structured teaching program regarding negative physiological and psychological effect of online gaming among adolescents.

3.4.2.2 Chi Square test

There is no statistical association was found between knowledge score with age , gender , class , residence , type of family, Parent/guardian occupation , Socioeconomic status, Duration of gaming per day , mode of gaming , What kind of game prefer to play.

3.4.3 COMPARISON WITH SIMILAR STUDY

- The objective of my study was to evaluate the effectiveness of SATP on knowledge regarding negative physiological and psychological effect of online gaming among Adolescents. - The sample size was 100 and sampling technique was Non-probability (Purposive & Convenience sample technique) . IBM SPSS 26 software is used for data statistical analysis. - The data represented that mean pre-test knowledge score (5.88 ± 3.57) regarding negative physiological and psychological effect of online gaming among adolescents was less than the mean post-test knowledge score (27.03 ± 2.31). - It shows the effectiveness of structured teaching program regarding negative physiological and psychological effect of online gaming among adolescents .	- This finding was similar to the study conducted by Rani Sushma .The objective of this study is to know the impact of video gaming on respondents' physical and mental health. - The sample size was 136 and sampling technique was . convenience sampling. IBM SPSS software is used for data statistical analysis. - Respondents reported a moderate negative impact on their health due to video gaming, with a mean score of 3.54 (SD = 1.141). - This study concluded the dual nature of video gaming, showcasing its capacity to both enrich and potentially detract from real-world experiences, thereby emphasizing the need for a balanced understanding of its impacts.
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IV. RESULTS AND DISCUSSION

4.1 Effectiveness of structured teaching awareness program (SATP) regarding negative physiological and psychological effect of online gaming among adolescents .

n= 100					
Observation	Mean $\pm$ SD	SE	Paired t value	Table value at Df	Significance
Pre test	5.88 ± 3.57	.44	47	“t”df (99) =1.98	.000 = p< 0.05
Post test	27.03 ± 2.31				

the mean pre-test knowledge score (5.88 ± 3.57) regarding negative physiological and psychological effect of online gaming among adolescents was less than the mean post-test knowledge score (27.03 ± 2.31), hence it shows the effectiveness of structured teaching program regarding negative physiological and psychological effect of online gaming among adolescents.

The calculated t value was ($t=47$) more than the table value ($t=1.98$). hence there is significance difference in the mean pre-test and post- test knowledge score. **Therefore , Research Hypothesis (H₁) is accepted.**

4.2 find the association between pre- test knowledge score regarding negative physiological and psychological effect of online gaming among adolescents with their selected demographic variables

There is no statistical association was found between knowledge score with age , gender , class , residence , type of family, Parent/guardian occupation , Socioeconomic status, Duration of gaming per day , mode of gaming , What kind of game prefer to play. **Therefore Research Hypothesis (H₂) is rejected.**

Frequency and percentage distribution of DASS-21 score regarding negative physiological and psychological effect of online gaming.

N=100

S.No	Sub Scale	Severity Interpretation	Frequency (F)	Percentage (%)
1	DEPRESSION	Normal (0~9)	37	37%
		Mild (10~13)	41	41%
		Moderate (14~20)	22	22%
		Severe (21~27)	0	0%
		Extremely Severe (≥ 28)	0	0%
2	ANXIETY	Normal (0~7)	0	0%
		Mild (8~9)	0	0%
		Moderate (10~14)	17	17%
		Severe (15~19)	46	46%
		Extremely Severe (≥ 20)	37	37%
3	STRESS	Normal (0~14)	14	14%
		Mild (15~18)	49	49%
		Moderate (19~25)	36	36%
		Severe (26~33)	1	1%
		Extremely Severe (≥ 34)	0	0%

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