

EFFECTS OF A STRUCTURED TEACHING PROGRAMME ON KNOWLEDGE REGARDING THE IMPACTS OF FREE FIRE GAMING ADDICTION AMONG SCHOOL CHILDREN

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Abstract: Free Fire is one of the most popular online games among school children. The present study aimed to assess the effectiveness of a structured teaching programme (STP) on knowledge regarding the impacts of Free Fire gaming addiction among 50 school children aged 10–14 years in Puducherry. A quantitative pre-experimental one-group pre-test and post-test design was adopted. Data were collected using demographic variables, a structured self-administered questionnaire, and a Free Fire gaming addiction assessment scale. Following the pre-test, a STP was administered, and post-test assessment was conducted after two weeks. The results revealed that in the pre-test, 56% of school children had inadequate knowledge and 44% had moderately adequate knowledge. After the intervention, 92% had moderately adequate knowledge and 8% had adequate knowledge. The mean pre-test knowledge score was 12.08 ± 2.63 , which increased to 15.00 ± 2.65 in the post-test. The paired t-test showed a highly significant improvement in knowledge ($t = 6.61, p < 0.001$). The study concluded that the STP was effective in improving knowledge regarding the impacts of Free Fire gaming addiction among school children.

Index Terms: Structured teaching programme, Free Fire Gaming Addiction, School Children, Knowledge, Online Gaming.

INTRODUCTION

Online gaming has become one of the most popular recreational activities among children and adolescents. Free Fire is a multiplayer battle royal game that attracts millions of young users worldwide. Although gaming provides entertainment and cognitive stimulation, excessive gaming can result in addiction and adversely affect physical health, academic performance, social relationships, and psychological well-being.

Gaming addiction among school children is emerging as a public health concern. Children who spend excessive hours playing online games often experience sleep disturbances, eye strain, musculoskeletal pain, reduced academic achievement, and behavioural problems. Lack of awareness regarding the consequences of gaming addiction contributes to unhealthy gaming practices.

Educational interventions such as STP can improve children's understanding of gaming addiction and encourage healthy gaming behaviour. Therefore, the present study was conducted to assess the effectiveness of a STP on knowledge regarding the impacts of Free Fire gaming addiction among school children in Puducherry.

NEED OF THE STUDY

A major public health concern is the rising incidence of online gaming among schoolchildren. Children are spending a lot of time playing online games, especially free fire and reasonably priced internet subscriptions (**Curry D 2026**). Prolonged exposure to such games often leads to addictive behavior that negatively influence children's overall well-being. Excessive gaming has been linked to poor academic performance, sleep disturbances, decreased physical activity, and an increased risk of psychological issues like sadness, anxiety, and violence, according to research (**Veigas F 2023**). Children who are addicted to video games frequently exhibit poor social skills, weakened family ties, and behavioural problems at school. Even though this issue is becoming more widespread, schoolchildren's knowledge of gaming addiction and its effects is still lacking. Many children consider internet gaming to be innocent entertainment and are unaware of its potential long-term implications. Preventive education and early detection are critical to addressing this emerging issue. Age-appropriate knowledge can be taught in a planned and methodical way with the help of a STP. Children can be inspired to develop healthy gaming habits and strike a balance between their scholastic and leisure pursuits by learning more about the effects of free fire gaming addiction.

OBJECTIVES

- To assess the knowledge regarding impacts of Free Fire gaming addiction among school children.
- To evaluate the effectiveness of Structured Teaching Programme on knowledge regarding impacts of Free Fire gaming addiction among school children.
- To find the association between pre-test knowledge and selected demographic variables among school children.

HYPOTHESES

- H₁:** There will be a significant difference between pre-test and post-test levels of knowledge regarding impacts of Free Fire gaming addiction among school children.
- H₂:** There will be a significant association between pre-test knowledge level and selected demographic variables among school children.

RESEARCH METHODOLOGY

Research approach: Quantitative research design approach

Research design : One group pre-test and post-test design.

Setting of the study: S.R.K Higher Secondary School, Puducherry.

Population: School children between the ages of 10 and 14 who were enrolled in S.R.K. Higher Secondary School in Puducherry.

Sample size: 50 school children.

Sampling technique: Non-probability convenience sampling technique.

Inclusion criteria: Children aged between 10 and 14 years, who were playing games, and were willing to participate in the study, and who were present at the time of data collection, were included in the study.

Exclusion criteria: The schoolchildren who didn't utilize smartphones were excluded.

Data Collection Procedure:

A quantitative pre-experimental one-group pre-test and post-test design was adopted for the study. The sample consisted of 50 school children aged 10–14 years selected using non-probability convenience sampling technique. The study setting was S.R.K Higher Secondary School, Puducherry. Permission was obtained from school authorities. Each child and their parent provided written assent and informed consent. Pre-test data were collected using a demographic variables questionnaire, a structured self-administered knowledge questionnaire and a Free Fire gaming addiction assessment scale. A structured teaching programme regarding the impacts of Free Fire gaming addiction was administered for 20–30 minutes. Post-test was conducted after two weeks using the same questionnaire.

RESULTS

The data were organized, tabulated, and analysed according to the objectives. The data analysis begins with a description that applies to the study in which the data are numerical with some concepts.

Demographic variables: Among the participants, 66% belonged to the age group of 13–14 years and 58% were male students. Most participants were studying in VIII standard (42%). The majority belonged to rural areas (88%) and nuclear families (68%). Nearly 94% reported playing online games and 80% used Android phones for gaming.

Pre-test knowledge: In the pre-test, 56% of school children had inadequate knowledge and 44% had moderately adequate knowledge.

Post-test knowledge: After STP, 92% had moderately adequate knowledge and 8% had adequate knowledge. No participant had inadequate knowledge in the post-test (Table 1 and Fig.1).

Table 1: Comparison of Pre-test and Post-test level of knowledge regarding impact of free fire gaming addiction
N=50

Knowledge Score	Mean	SD
Pre-test	12.08	2.63
Post-test	15.00	2.65

The paired t-test revealed a highly statistically significant difference between the pre-test and post-test knowledge scores ($t = 6.61$, $p < 0.001$), suggesting that the Structured Teaching Programme was effective. Among school children, 86% showed moderate gaming addiction, with 14% experiencing mild addiction. None had a severe addiction. The mean addiction score was 21.96 ± 5.20 .

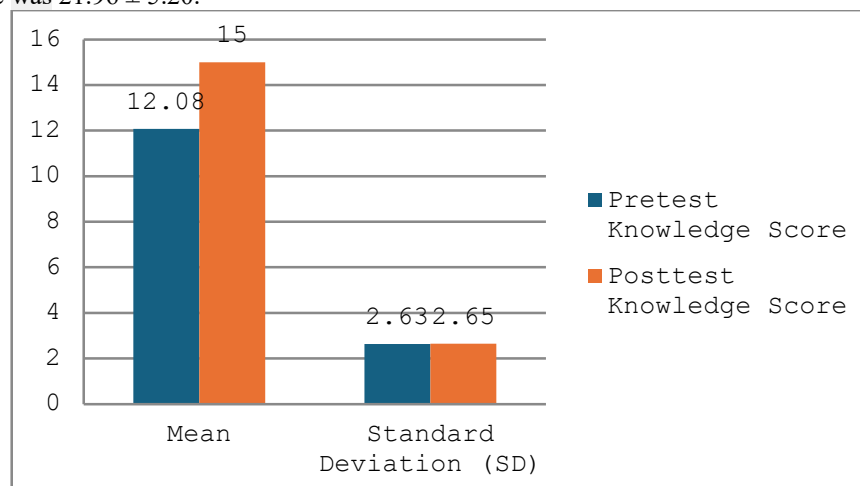


Fig.1: Comparison of pre- test and post-test level of knowledge regarding impact of free fire gaming addiction

DISCUSSION

The study findings revealed that most school children had inadequate knowledge regarding the impacts of Free Fire gaming addiction before the intervention. Following the STP, a substantial improvement in knowledge was observed. The mean post-test score was significantly higher than the mean pre-test score, confirming the effectiveness of the educational intervention. A statistically significant association was found between pre-test knowledge and the type of mobile phone used for gaming ($\chi^2 = 5.808$, $p = 0.005$) as well as the manner of playing free fire ($\chi^2 = 5.548$, $p = 0.005$). No significant association was observed with the other selected demographic variables. Hence, the research hypotheses H1 and H2 were partially accepted. The findings support previous studies by Kappi et al. (2024), Waghmare AP (2025), and Celik Iskifoglu T (2025), which reported educational programs significantly improving awareness and knowledge regarding gaming addiction among children and adolescents. The study highlights the importance of school-based health education programmes in preventing gaming addiction and promoting healthy gaming behaviours.

CONCLUSION

The study concluded that the Structured Teaching Programme was highly effective in improving knowledge regarding the impacts of Free Fire gaming addiction among school children. The significant increase in post-test knowledge scores demonstrates the usefulness of educational interventions in enhancing awareness regarding gaming addiction. School health education programmes should incorporate information on gaming addiction to promote healthy gaming practices among children.

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