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"EFFECTIVENESS OF STRUCTURED TEACHING PROGRAMME ON KNOWLEDGE REGARDING DIGITAL TECHNOLOGY OVERUSE AND ITS ILL EFFECTS AMONG ADOLESCENCE IN SELECTED HIGH SCHOOL AT MANGALURU"

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ABSTRACT

Introduction: Digital technology has become an integral part of adolescents' daily lives, providing numerous educational, social, and recreational benefits. However, excessive use of digital technologies such as smartphones, computers, internet-based applications, social media, and video games has emerged as a significant public health concern. Digital technology overuse has been associated with various physical, psychological, social, and academic problems, including sleep disturbances, eye strain, obesity, musculoskeletal disorders, anxiety, depression, social isolation, and poor academic performance. Despite these adverse consequences, adolescents often lack adequate knowledge regarding the ill effects of excessive digital technology use and its preventive measures. Therefore, educational interventions such as structured teaching programmes may play a vital role in improving awareness and promoting healthy digital practices among adolescents.

Aim: The aim of the study was to evaluate the effectiveness of a structured teaching programme on knowledge regarding digital technology overuse and its ill effects among adolescents in a selected high school at Mangaluru.

Objectives: 1) To assess the pre-test level of knowledge regarding digital technology overuse and its ill effects among adolescents. 2) To evaluate the effectiveness of a structured teaching programme on knowledge regarding digital technology overuse and its ill effects among adolescents. 3) To determine the association between pre-test knowledge scores and selected demographic variables of adolescents.

Materials and Methods: An evaluative research approach with a quasi-experimental one-group pre-test and post-test design was adopted for the study. The study was conducted among 70 adolescents aged 13–15 years studying in a selected high school at Mangaluru. Participants were selected using a stratified random sampling technique. Data were collected using a structured knowledge questionnaire developed by the investigator. Following the pre-test, a structured teaching programme on digital technology overuse and its ill effects was administered. The post-test was conducted on the eighth day using the same questionnaire. The reliability coefficient of the tool was 0.78. Data were analyzed using descriptive statistics (frequency, percentage, mean, and standard deviation) and inferential statistics such as paired t-test and Chi-square test.

Results and Findings: The findings revealed that all adolescents (100%) had poor knowledge regarding digital technology overuse and its ill effects in the pre-test. Following the structured teaching programme, 91.42% of adolescents attained good knowledge and 8.58% attained average knowledge. The overall mean knowledge percentage increased from 24.94% in the pre-test to 73.77% in the post-test. The paired t-test showed a statistically significant improvement in knowledge ($t = 65.22$, $p < 0.05$), indicating that the structured teaching programme was highly effective. A significant association was found between pre-test knowledge scores and source of information, whereas no significant association was observed with other demographic variables.

Conclusion: The study concluded that adolescents had inadequate baseline knowledge regarding digital technology overuse and its ill effects. The structured teaching programme significantly improved their knowledge, demonstrating its effectiveness as an educational intervention. The findings highlight the importance of implementing school-based health education programmes to promote responsible digital technology use and prevent technology-related health problems among adolescents.

Keywords: Structured Teaching Programme, Digital Technology Overuse, Ill Effects, Adolescents, Knowledge, Health Education, School Health, Effectiveness.

INTRODUCTION

Digital technology has become an integral component of contemporary life, profoundly influencing communication, education, healthcare, entertainment, and social interactions. The widespread availability of smartphones, computers, tablets, and internet-based platforms has enabled adolescents to access information and connect with others more efficiently than ever before. While technological advancements have enhanced learning opportunities and digital literacy, the rapid increase in screen-based activities has raised concerns regarding their potential impact on the health and well-being of young people.

Adolescence is a critical developmental stage characterized by significant physical, psychological, cognitive, and social changes. During this period, individuals are particularly susceptible to environmental influences, including digital media exposure. Recent trends indicate that adolescents spend a substantial portion of their daily lives using digital devices for academic purposes, social networking, online gaming, entertainment, and communication. Although moderate use of technology can support learning and social connectedness, excessive use may result in adverse consequences.

Growing evidence suggests that digital technology overuse is associated with several health-related problems among adolescents. Prolonged screen time has been linked to sleep disturbances, eye strain, musculoskeletal discomfort, reduced physical activity, obesity, and poor academic performance. Furthermore, excessive engagement with social media and online activities has been associated with increased levels of stress, anxiety, depression, social isolation, and diminished emotional well-being. These concerns have become more pronounced following the COVID-19 pandemic, during which online education and virtual interactions significantly increased adolescents' dependence on digital devices.

Given the increasing prevalence of digital technology use among adolescents, promoting awareness regarding its responsible and healthy use has become a public health priority. Educational interventions can play a vital role in enhancing adolescents' knowledge about the risks associated with excessive technology use and encouraging healthy digital habits. Structured teaching programmes have been recognized as effective strategies for improving knowledge and fostering positive behavioral changes among school-going adolescents.

Therefore, the present study was undertaken to evaluate the effectiveness of a structured teaching programme on knowledge regarding digital technology overuse and its ill effects among adolescents in a selected high school at Mangaluru. The findings of this study may contribute to the development of school-based educational initiatives aimed at promoting digital well-being and preventing the adverse health consequences associated with excessive technology use among adolescents.

Rationale of the study

The rapid advancement of digital technology has transformed the daily lives of adolescents, making smartphones, computers, tablets, and internet-based applications an essential part of education, communication, and recreation. Although digital technology offers numerous benefits, excessive and uncontrolled use has emerged as a growing public health concern. Adolescents are particularly vulnerable to digital technology overuse because of their developmental stage and increased engagement with social media, online gaming, and internet-based activities.

Research has demonstrated that excessive use of digital devices is associated with various physical, psychological, and social problems, including sleep disturbances, eye strain, musculoskeletal disorders, reduced physical activity, obesity, anxiety, depression, social isolation, and poor academic performance. Despite these adverse effects, many adolescents lack adequate knowledge regarding the safe and responsible use of digital technology and the potential consequences of its overuse.

Schools provide an ideal setting for health education and behavioral interventions aimed at promoting healthy digital practices among adolescents. Structured teaching programmes can serve as an effective educational strategy to improve awareness, enhance knowledge, and encourage responsible technology use. However, limited studies have evaluated the effectiveness of such educational interventions among high school adolescents in the local context of Mangaluru.

Therefore, the present study was undertaken to assess the effectiveness of a structured teaching programme on knowledge regarding digital technology overuse and its ill effects among adolescents in a selected high school at Mangaluru. The findings of this study are expected to contribute to the development of evidence-based educational programmes that promote digital well-being and prevent technology-related health problems among adolescents.

Significance and Need for the Study

The increasing dependence on digital technology among adolescents has become a major concern due to its potential impact on physical, psychological, social, and academic well-being. As adolescents represent a significant proportion of the population and are among the most active users of digital devices, it is essential to equip them with adequate knowledge regarding the appropriate use of technology and the risks associated with its overuse. The present study is significant because it evaluates the effectiveness of a structured teaching programme in enhancing adolescents' knowledge about digital technology overuse and its ill effects.

The findings of this study may benefit adolescents by increasing their awareness of healthy digital practices and encouraging responsible technology use. The study may also assist teachers, parents, school administrators, and healthcare professionals, particularly nurses, in developing and implementing educational interventions aimed at promoting digital well-being. Furthermore, the results may contribute to evidence-based school health programmes and provide a foundation for future research related to technology use and adolescent health.

The widespread availability of smartphones, computers, tablets, and internet access has led to a substantial increase in screen time among adolescents. While digital technology offers numerous educational and social advantages, excessive use has been associated with several adverse outcomes, including sleep disturbances, eye strain, musculoskeletal problems, obesity, reduced academic performance, anxiety, depression, and social isolation. Adolescents often remain unaware of these potential health risks and may not possess adequate knowledge regarding preventive measures.

The COVID-19 pandemic further accelerated the use of digital technology due to online learning and virtual communication, resulting in increased screen exposure among school-going adolescents. This growing dependence on digital devices highlights the urgent need for educational interventions that promote safe and balanced technology use. Since schools are ideal settings for health education, a structured teaching programme can effectively improve knowledge and awareness regarding digital technology overuse. Therefore, the present study was undertaken to determine the effectiveness of a structured teaching programme on knowledge regarding digital technology overuse and its ill effects among adolescents in a selected high school at Mangaluru.

Statement of the problem

"A study to evaluate the effectiveness of a structured teaching programme on knowledge regarding digital technology overuse and its ill effects among adolescents in a selected high school at Mangaluru."

Objectives of the study

- To assess the pre-test level of knowledge regarding digital technology overuse and its ill effects among adolescents in a selected high school at Mangaluru.
- To evaluate the effectiveness of a structured teaching programme on knowledge regarding digital technology overuse and its ill effects among adolescents by comparing pre-test and post-test knowledge scores.
- To determine the post-test level of knowledge regarding digital technology overuse and its ill effects among adolescents after the administration of the structured teaching programme.
- To find the association between pre-test knowledge scores regarding digital technology overuse and its ill effects and selected demographic variables of adolescents.

OPERATIONAL DEFINITIONS

Evaluate:

In this study, evaluate refers to the process of determining the effectiveness of the structured teaching programme by comparing the pre-test and post-test knowledge scores of adolescents regarding digital technology overuse and its ill effects.

Effectiveness:

Effectiveness refers to the extent to which the structured teaching programme improves the knowledge of adolescents regarding digital technology overuse and its ill effects, as evidenced by the gain in post-test knowledge scores compared to pre-test scores.

Structured Teaching Programme (STP):

A structured teaching programme refers to a systematically planned and organized educational intervention developed by the researcher to provide information regarding digital technology overuse, its ill effects, and preventive measures through lecture, discussion, and audiovisual aids.

Knowledge:

Knowledge refers to the level of understanding and awareness of adolescents regarding digital technology overuse, its ill effects, and preventive strategies, as measured by a structured knowledge questionnaire.

Digital Technology Overuse and Its Ill Effects:

Digital technology overuse refers to excessive use of digital devices such as smartphones, computers, tablets, the internet, social media, television, and video games beyond recommended limits. Its ill effects include adverse physical, psychological, social, and academic consequences such as eye strain, sleep disturbances, musculoskeletal problems, obesity, anxiety, depression, social isolation, and poor academic performance.

Adolescents:

Adolescents refer to boys and girls aged 13–15 years studying in the 8th and 9th standards of a selected high school at Mangaluru who participated in the study.

NULL HYPOTHESIS

H_{01}: There will be no statistically significant difference between the mean pre-test and post-test knowledge scores regarding digital technology overuse and its ill effects among adolescents following the administration of the structured teaching programme.

H_{02}: There will be no statistically significant association between the pre-test knowledge scores regarding digital technology overuse and its ill effects and selected demographic variables of adolescents.

RESEARCH HYPOTHESIS

RH_1: There will be a statistically significant difference between the mean pre-test and post-test knowledge scores regarding digital technology overuse and its ill effects among adolescents following the administration of the structured teaching programme.

RH_2: There will be a statistically significant association between the pre-test knowledge scores regarding digital technology overuse and its ill effects and selected demographic variables of adolescents.

ASSUMPTIONS

The study is based on the following assumptions:

- Adolescents may have varying levels of knowledge regarding digital technology overuse and its ill effects.
- Adolescents are frequent users of digital technologies such as smartphones, computers, the internet, social media, and online gaming platforms.
- Excessive use of digital technology may have adverse physical, psychological, social, and academic effects on adolescents.
- A structured teaching programme can improve the knowledge of adolescents regarding digital technology overuse and its ill effects.
- Increased knowledge regarding digital technology overuse and its ill effects may encourage adolescents to adopt healthier digital practices.

DELIMITATIONS

The study was delimited to:

- Adolescents aged 13–15 years studying in the 8th and 9th standards.
- Students enrolled in a selected high school at Mangaluru.
- A sample size of 70 adolescents who met the inclusion criteria and were willing to participate in the study.
- Assessment of knowledge regarding digital technology overuse and its ill effects only.
- Evaluation of the effectiveness of a structured teaching programme through pre-test and post-test knowledge assessment.
- A data collection period of one month.

RESEARCH METHODOLOGY

Research Approach

An evaluative research approach was adopted to assess the effectiveness of a structured teaching programme on knowledge regarding digital technology overuse and its ill effects among adolescents.

Research Design

A quasi-experimental one-group pre-test post-test design was used in the study. The knowledge of adolescents was assessed before and after the administration of the structured teaching programme.

Design Diagram:

$O_1 \rightarrow X \rightarrow O_2$

Where:

O_1 = pre-test assessment of knowledge

X = Structured Teaching Programme

O_2 = post-test assessment of knowledge conducted on the 8th day after the intervention.

Setting of the Study

The study was conducted at St. Aloysius English Medium School, Urwa, Mangaluru.

Population and Sample

The target population comprised adolescents studying in selected schools of Mangaluru. The study sample consisted of 70 adolescents who met the inclusion criteria.

Sampling Technique

A stratified random sampling technique was used to select the study participants, while the school was selected through simple random sampling.

Variables

Independent Variable:

Structured Teaching Programme on digital technology overuse and its ill effects.

Dependent Variable:

Knowledge of adolescents regarding digital technology overuse and its ill effects.

Demographic Variables:

Age, gender, parental education, parental occupation, family income, area of residence, number of siblings, awareness and usage patterns of digital technology, source of information, sleep duration, and purpose of technology use.

Inclusion Criteria

Adolescents who:

- Were aged between 13 and 15 years.
- Included both boys and girls.
- We're willing to participate in the study.

Exclusion Criteria

Adolescents who:

- Were absent during data collection.
- Were physically or mentally unfit.
- Had received similar information regarding digital technology overuse within the previous three months.

Data Collection Instrument

Data were collected using:

A demographic proforma.

A structured knowledge questionnaire consisting of 28 items related to digital technology overuse and its ill effects. Each correct response carried one mark, with a maximum score of 28.

Reliability and Validity

The tool was validated by a panel of experts from medical and nursing specialties. Reliability was established using the split-half method, yielding a reliability coefficient of 0.78, indicating acceptable reliability.

Intervention

A structured teaching programme was developed and administered for approximately 30 minutes. The content included:

Meaning and types of digital technologies.

Health hazards of digital technology overuse.

Prevention and management of technology-related health problems.

Data Collection Procedure

After obtaining administrative and ethical approvals, a pre-test was conducted using the structured knowledge questionnaire. The structured teaching programme was administered immediately after the pre-test. A post-test using the same questionnaire was conducted on the eighth day following the intervention.

Data Analysis

Data were analyzed using descriptive and inferential statistics. Frequency, percentage, mean, and standard deviation were used to summarize the data. The paired t-test was used to determine the effectiveness of the structured teaching programme, and the Chi-square test was used to assess the association between pre-test knowledge scores and selected demographic variables.

Ethical Considerations

Ethical clearance was obtained from the Institutional Ethics Committee. Written informed consent was obtained from all participants, and confidentiality of the collected information was maintained throughout the study.

DATA ANALYSIS AND INTERPRETATION

Data were analyzed using descriptive and inferential statistics. Frequency, percentage, mean, and standard deviation were used to describe the demographic characteristics and knowledge scores of the participants. The effectiveness of the structured teaching programme was evaluated using the paired t-test, and the association between pre-test knowledge scores and selected demographic variables was determined using the Chi-square test.

Demographic Characteristics of Adolescents

A total of 70 adolescents participated in the study. The majority of participants were 13 years old (88.57%) and male (58.57%). Most fathers (50%) and mothers (37.15%) had completed higher secondary education/PUC/diploma. More than half of the mothers (55.72%) were homemakers, while the majority of fathers (70%) were employed in private firms. Most participants belonged to urban areas (92.85%), had one sibling (42.86%), and reported awareness regarding the hazards of digital technology overuse (91.42%). Mass media was the major source of information (57.15%). Most adolescents reported using digital technology for gaming (41.43%) and social networking (38.57%).

Pre-test Knowledge Regarding Digital Technology Overuse

Assessment of baseline knowledge revealed that all participants (100%) had poor knowledge regarding digital technology overuse and its ill effects. The overall mean knowledge score in the pre-test was low, with an overall mean percentage of 24.94%, indicating inadequate awareness among adolescents before the intervention.

Effectiveness of the Structured Teaching Programme

Following the administration of the structured teaching programme, a marked improvement in knowledge was observed. In the post-test, 91.42% of adolescents demonstrated good knowledge and 8.58% demonstrated average knowledge, while none remained in the poor knowledge category. The overall mean knowledge percentage increased from 24.94% in the pre-test to 73.77% in the post-test. The paired t-test revealed a statistically significant difference between pre-test and post-test knowledge scores ($t = 65.22$, $p < 0.05$), indicating that the structured teaching programme was highly effective in improving adolescents' knowledge regarding digital technology overuse and its ill effects.

Area-wise analysis also showed significant improvements in knowledge related to the meaning and definition of digital technologies ($t = 31.8$), health hazards of digital technology overuse ($t = 53.28$), and prevention and management of technology-related health hazards ($t = 25.53$). These findings demonstrate the effectiveness of the intervention across all content areas.

Association Between Knowledge and Demographic Variables

Chi-square analysis revealed a statistically significant association between pre-test knowledge scores and the source of information regarding digital technology overuse ($\chi^2 = 27$, $p < 0.05$). However, no significant association was found between pre-test knowledge scores and other demographic variables such as age, gender, parental education, parental occupation, family income, area of residence, number of siblings, awareness of hazards, sleep duration, purpose of technology use, and study-related use of digital technology.

Interpretation

The findings indicate that adolescents had inadequate baseline knowledge regarding digital technology overuse and its ill effects. The structured teaching programme significantly enhanced their knowledge, supporting the effectiveness of educational interventions in promoting awareness of healthy digital technology practices. The study findings support the research hypothesis that structured teaching programmes can effectively improve adolescents' knowledge regarding digital technology overuse and its associated health consequences.

DISCUSSION

The present study was conducted to evaluate the effectiveness of a structured teaching programme on knowledge regarding digital technology overuse and its ill effects among adolescents in a selected high school at Mangaluru. The findings revealed that adolescents had inadequate baseline knowledge regarding digital technology overuse and its associated health consequences. Prior to the intervention, all participants (100%) demonstrated poor knowledge, indicating a substantial gap in awareness regarding the physical, psychological, social, and academic effects of excessive digital technology use. These findings emphasize the need for educational interventions targeting digital health literacy among adolescents.

The study demonstrated a significant improvement in knowledge following the implementation of the structured teaching programme. The overall mean knowledge percentage increased from 24.94% in the

pre-test to 73.77% in the post-test, with a mean knowledge enhancement of approximately 48.83%. The paired t-test showed a statistically significant difference between pre-test and post-test knowledge scores ($t = 65.22$, $p < 0.05$), confirming the effectiveness of the educational intervention. These findings suggest that structured teaching programmes are effective strategies for improving adolescents' awareness regarding responsible digital technology use and the prevention of technology-related health problems.

The findings of the present study are consistent with previous research that reported significant improvements in knowledge following structured educational interventions. Similar studies on the impact of social networking and digital media use among school-aged children have demonstrated that planned teaching programmes effectively enhance knowledge and awareness. The observed improvement in the present study supports the role of school-based health education programmes in promoting healthy digital behaviors and preventing the adverse consequences of excessive technology use among adolescents.

Analysis of the association between pre-test knowledge scores and demographic variables revealed that the source of information was significantly associated with knowledge levels, whereas variables such as age, gender, parental education, parental occupation, family income, area of residence, number of siblings, sleep duration, and purpose of technology use showed no significant association. This finding highlights the importance of reliable information sources in shaping adolescents' understanding of digital technology overuse and suggests that educational interventions should utilize effective communication channels to maximize knowledge dissemination.

Overall, the study findings provide evidence that a structured teaching programme is an effective method for improving knowledge regarding digital technology overuse and its ill effects among adolescents. The results underscore the need for regular school-based educational programmes aimed at promoting digital well-being, preventing technology-related health problems, and encouraging responsible use of digital devices among young people.

CONCLUSION

The present study assessed the effectiveness of a structured teaching programme on knowledge regarding digital technology overuse and its ill effects among adolescents in a selected high school at Mangaluru. The findings revealed that adolescents had inadequate baseline knowledge regarding digital technology overuse and its associated health hazards. Following the implementation of the structured teaching programme, a significant improvement in knowledge was observed, demonstrating the effectiveness of the intervention in enhancing adolescents' awareness and understanding of the topic.

The study findings showed a statistically significant difference between pre-test and post-test knowledge scores, indicating that the structured teaching programme was successful in improving knowledge regarding the meaning of digital technologies, health hazards associated with their overuse, and preventive measures. Furthermore, the source of information was found to have a significant association with pre-test knowledge levels, while most other demographic variables showed no significant association.

Based on the findings, it can be concluded that structured teaching programmes are effective educational strategies for increasing awareness regarding digital technology overuse and its ill effects among adolescents. Incorporating regular health education programmes in schools may help promote responsible digital technology use, prevent technology-related health problems, and enhance the overall well-being of adolescents. The study highlights the importance of early educational interventions in fostering healthy digital habits and supporting adolescent health in the digital era.

LIMITATIONS

- The study was limited to adolescents aged 13–15 years studying in a selected high school at Mangaluru; therefore, the findings cannot be generalized to all adolescents.
- The study employed a one-group pre-test post-test design without a control group, which may limit the ability to attribute changes in knowledge solely to the structured teaching programme.
- The sample size was limited to 70 adolescents, which may restrict the generalizability of the findings.
- The study assessed only the knowledge of adolescents regarding digital technology overuse and its ill effects and did not evaluate actual behavioral changes or long-term practices.
- The post-test was conducted on the eighth day after the intervention; therefore, long-term retention of knowledge could not be assessed.
- Data were collected using a structured self-report questionnaire, which may be subject to response bias.
- The study was conducted within a limited period of one month, which restricted follow-up and evaluation of sustained outcomes.

RECOMMENDATIONS

Based on the findings of the present study, the following recommendations are proposed:

- Similar studies may be conducted with a larger sample size to improve the generalizability of the findings.
- A comparative study can be undertaken between urban and rural adolescents to assess differences in knowledge regarding digital technology overuse and its ill effects.
- Experimental studies with a control group may be conducted to determine the effectiveness of structured teaching programmes more accurately.
- Longitudinal studies may be carried out to assess the long-term retention of knowledge and behavioral changes following educational interventions.
- Similar studies can be conducted among different age groups, including primary school children, higher secondary students, and college adolescents.
- Educational interventions such as structured teaching programmes, workshops, awareness campaigns, and digital wellness programmes should be regularly implemented in schools to promote responsible use of digital technology.
- Future studies may assess not only knowledge but also attitudes, practices, digital addiction levels, and health outcomes related to digital technology overuse.
- Parents, teachers, and healthcare professionals should be actively involved in educational programmes aimed at preventing the adverse effects of excessive digital technology use among adolescents.
- School health nurses can develop and implement comprehensive digital health education programmes to enhance awareness regarding safe and healthy technology usage.
- Further research may explore the relationship between digital technology overuse and factors such as academic performance, sleep quality, mental health, and social well-being among adolescents.

NURSING IMPLICATIONS

The findings of the study have important implications for nursing practice, nursing education, nursing administration, and nursing research.

Nursing Practice

- Community health nurses and school health nurses can play a vital role in identifying adolescents at risk of digital technology overuse and its associated health problems.
- Nurses can provide health education and counseling regarding healthy digital habits, appropriate screen time, and preventive measures to reduce the adverse effects of excessive technology use.
- School health nurses can organize regular awareness programmes on digital well-being for students, parents, and teachers.
- Nurses can promote healthy lifestyle practices such as physical activity, adequate sleep, stress management, and responsible use of digital devices among adolescents.

Nursing Education

- Nursing curricula should incorporate content related to digital technology overuse, digital addiction, and its physical and psychological consequences among adolescents.
- Nursing students should be trained to assess technology-related health problems and provide appropriate health education.
- Educational programmes, workshops, and seminars can be conducted to enhance nurses' knowledge regarding digital health and adolescent well-being.
- Nursing educators can utilize the findings of this study to develop effective teaching strategies and educational materials on digital technology overuse.

Nursing Administration

- Nurse administrators can encourage the implementation of school-based health education programmes focusing on digital technology overuse and its ill effects.
- Policies and guidelines can be developed to promote digital wellness and healthy technology use among school-going adolescents.
- Adequate resources should be allocated for conducting awareness programmes, health camps, and counseling services related to digital health.
- Collaboration between schools, healthcare institutions, and community organizations can be strengthened to address technology-related health concerns among adolescents.

Nursing Research

- The findings of this study provide baseline data for future research on digital technology overuse among adolescents.
- Further studies can be conducted using larger samples and different research designs to validate and generalize the findings.
- Research can be undertaken to evaluate the long-term effectiveness of educational interventions on digital technology use and behavioral outcomes.
- Future studies may explore the relationship between digital technology overuse and mental health, academic performance, sleep quality, and social well-being among adolescents.
- Comparative and interventional studies can be conducted to identify the most effective strategies for promoting digital well-being among young people.

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Conflict of Interest Statement

The author declares that there is no conflict of interest related to this research study. No financial, personal, institutional, or professional interests influenced the design, conduct, analysis, interpretation, or reporting of the study findings.

Ethical Statement

Ethical clearance for the study was obtained from the Institutional Ethics Committee prior to the commencement of the research. Formal administrative permission was obtained from the principal of the selected school before data collection.

Written informed consent was obtained from the participants and their parents/guardians wherever applicable. The purpose and objectives of the study were clearly explained to the participants. Confidentiality and anonymity of the information provided by the participants were strictly maintained throughout the study.

Participation in the study was entirely voluntary, and participants were informed of their right to withdraw from the study at any stage without any consequences. The study adhered to the ethical principles of autonomy, beneficence, non-maleficence, and justice throughout the research process.

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