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EFFECTIVENESS OF PLANNED TEACHING ON KNOWLEDGE REGARDING PREVENTION OF CYBERCRIME AMONG ADOLESCENTS IN SELECTED COLLEGES: A PRE-EXPERIMENTAL

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ABSTRACT

Background: The rapid expansion of digital technology has increased adolescents' exposure to cyberspace, making them vulnerable to various forms of cybercrime. Limited awareness of preventive measures necessitates educational interventions to promote cyber safety among this population. **Objectives:** To assess the existing knowledge regarding the prevention of cybercrime among adolescents, evaluate the effectiveness of a planned teaching programme, and determine the association between post-test knowledge scores and selected demographic variables. **Methods:** A quantitative, pre-experimental one-group pre-test–post-test design was adopted based on King's Goal Attainment Theory. The study was conducted among 80 adolescents selected using a non-probability convenience sampling technique from selected colleges. Data were collected using a structured questionnaire comprising seven demographic variables and 30 knowledge items. Tool reliability was established using the test–retest method. Following the pre-test, a planned teaching programme was administered, and the post-test was conducted after a seven-day interval. Data were analysed using descriptive statistics (frequency, percentage, mean, and standard deviation) and inferential statistics (paired Student's t-test and chi-square test), with the level of significance set at $p < 0.05$. **Results:** The mean pre-test knowledge score was 12.18 ± 3.43, which significantly increased to 21.15 ± 4.18 in the post-test. Knowledge levels improved from predominantly good and average in the pre-test to very good and excellent in the post-test. The paired t-test revealed a statistically significant difference between pre- and post-test scores ($t = 16.517$, $df = 79$, $p < 0.05$), indicating the effectiveness of the intervention. A significant association was found between the type of family and post-test knowledge scores, while other demographic variables showed no significant association. **Conclusion:** The planned teaching programme was effective in significantly enhancing adolescents' knowledge regarding the prevention of cybercrime. Incorporating structured cyber safety education into college health programmes can play a vital role in promoting responsible digital behaviour and reducing vulnerability to cyber threats.

KEYWORDS : Adolescents, Cybercrime Prevention, Planned Teaching Programme, Knowledge, Cyber Safety, Educational Intervention.

INTRODUCTION

"I dream of a digital India where cyber security becomes an integral part of our national security"

- Narendra Modi.

The rapid growth of Information and Communication Technology (ICT) has made the internet an essential component of daily life, offering numerous benefits in communication and education. However, this digital transformation has also led to a rise in cybercrime, including hacking, phishing, identity theft, cyberbullying, and online harassment. Adolescents are particularly vulnerable due to increased online exposure and limited awareness of cyber safety measures.[1] In India, expanding internet penetration has intensified these risks, adversely affecting the psychological well-being and academic performance of youth. Hence, enhancing awareness and knowledge regarding cyber safety is crucial to protect adolescents and promote responsible use of digital technologies.[2]

Background of the Study

The advancement of Information and Communication Technology (ICT) has transformed communication and education, making the Internet an essential component of modern society. Despite its numerous benefits, this digital expansion has led to a significant increase in cybercrime, now recognized as a major global concern.[3] Cybercrimes include both violent offences such as cyberstalking, child exploitation, and online harassment and nonviolent offences, including hacking, digital piracy, spam, and intentional system damage. Limited awareness of cybersecurity measures further increases individuals' vulnerability, particularly among adolescents and university students.[4] Evidence from a cross-national study by Sebastian et al. (2016) involving 2,162 adolescents revealed that cyberbullying victimization and low self-esteem significantly increase the risk of cyber grooming. These findings underscore the need for comprehensive educational and awareness programs to enhance cyber safety and promote responsible digital behavior.[5]

Need of the Study

The increasing reliance on the Internet has led to a parallel rise in cybercrime, posing significant threats to individuals, particularly adolescents. According to the National Crime Records Bureau (NCRB), cybercrime cases in India have shown a consistent upward trend, with notable increases during recent years. Adolescents are especially vulnerable due to extensive online engagement and limited awareness of cyber safety practices.[6] A descriptive study conducted among undergraduate nursing students in Nashik reported poor knowledge of cyber safety, emphasizing the need for targeted educational interventions. Beyond financial and privacy risks, cybercrime also results in serious psychological consequences such as anxiety, depression, and low self-esteem. Despite initiatives by governmental agencies, awareness regarding prevention remains inadequate.[7]

NCRB data indicate a growing trend of cybercrime in India, with cases in Mumbai increasing from 2,435 in 2020 to 2,883 in 2021 and the national incidence rate rising from 3.3 to 3.7 per lakh population, highlighting the increased vulnerability of children and women to online victimization.[8] Therefore, structured educational programmes are essential to enhance knowledge and promote safe online behavior among adolescents, forming the foundation for the present study.

Review of Literature

A descriptive study was conducted data privacy on the internet: a study on awareness and attitudes among the students of the University of Chittagong in Bangladesh in 2021.the objective is to examine to what extent university

students are aware of their online data and what attitudes they show towards their data privacy. A semi-structured questionnaire was used to obtain the data needed to meet the aims. The data analysis was carried out using SPSS, version 25. Participants in this research were 180 students from three distinct faculties at the University of Chittagong in Bangladesh. Through the analysis of the survey findings, the researcher hopes to measure the respondents' knowledge, skills, and attitudes towards digital technology and its privacy issues. This article also aims to check the target audience's cybersecurity awareness and willingness to practice it personally. Every day, the dependence on internet use increases proportionately with the rise of ICT and digital platforms. It has become essential to understand data privacy and cybersecurity issues in this age of cutting-edge technology. As a result, the researcher chose university-level students to assess their cybersecurity and data protection awareness and practice while using digital technologies in their daily lives. [9]

A descriptive study was conducted to explore the cybercrime awareness among male and female adolescents of Anantnag District of central Kashmir in 2021. The objective of this study was to explore cybercrime awareness among male and female adolescents on District Anantnag. Cybercrime awareness scale was used for data collection. 300 male and female adolescents were selected from different educational institutions of Anantnag District by using Random Sampling Technique. The collected data was put to suitable statistical treatment by using Frequency Distribution, Percentage, Mean, S.D and 't' value. The results of the study indicate that there is significant difference between male and female adolescents on their level of cybercrime awareness. Male adolescents were observed with high level of cybercrime awareness as compared to female adolescents.[10]

The Objective of the Study

Primary Objective

1. To evaluate the effectiveness of planned teaching on knowledge regarding prevention of cybercrime among adolescents in selected colleges.

Secondary Objectives

1. To assess the existing knowledge regarding prevention of cybercrime among adolescents in selected colleges.
2. To evaluate the effectiveness of planned teaching on knowledge regarding prevention of cybercrime among adolescents in selected colleges.
3. To associate the post-test knowledge score regarding prevention of cybercrime among adolescents in selected colleges.

METHODOLOGY

Research Approach

A quantitative research approach was adopted to study the effectiveness of planned teaching on knowledge regarding prevention of cybercrime among adolescents in selected colleges.

Research Design

A pre-experimental one-group pre-test post-test research design was used. This design was chosen to study the effectiveness of planned teaching on knowledge regarding prevention of cybercrime among adolescents in selected colleges.

Setting of the Study

The study was conducted in selected colleges.

Population

The target population comprised adolescent group (age between 17 -19 yrs).

Accessible Population

Adolescents in selected colleges who are available during data collection.

Sample Size and Sampling Technique

A sample 80 Adolescents from selected colleges was selected using Non-probability Convenient Sampling.

Inclusion Criteria

1. The adolescents from selected colleges.
2. The adolescents between the age group 17-19 years.
3. The adolescents who were willing to participate
4. The adolescents who were able to understand and write English

Exclusion Criteria

1. Adolescents who were absent at the time of study.
2. Adolescents who did not fulfil the criteria of age.
3. Adolescents who had gone through the educational programme regarding prevention of cybercrime.
4. Adolescents not available at the time of data collection.

Tool For Data Collection

The research instrument was developed to evaluate the effectiveness of planned teaching about knowledge regarding prevention of cybercrime among adolescents in selected colleges. Based on the study objectives, a self-structured questionnaire was prepared after an extensive review of literature from textbooks, journals, and online sources.

Section: A: Demographic Data

It consists of proforma for collecting demographic data of adolescents in selected colleges. It includes age in year, type of family, educational status, occupation, previous knowledge about regarding prevention of cybercrime and source of information regarding prevention of cybercrime.

Section: B: A Structured Knowledge Questionnaire

There are multiple choice questions to evaluate the knowledge regarding prevention of cybercrime among adolescents in selected colleges. Total 30 items were selected for the structured knowledge questionnaire. A blue print was prepared.

Reliability

Reliability was assessed using appropriate tests from pilot data, The correlation coefficient 'r' of the tool was r = 0.9, and the tool was found reliable.

Pilot Study

A pilot study was conducted from 28th October 2022 to 04 November 2022 to assess feasibility. No major modifications were required.

Data Collection Procedure

Data were collected from 15th to 24th November 2022 in selected colleges after obtaining institutional permission and informed consent from participants. A pre-test using a structured questionnaire was conducted from 15th to 18th November 2022, followed by a planned teaching programme on cybercrime prevention. A post-test with the same instrument was administered after a seven-day interval from 21st to 24th November 2022. Each questionnaire required approximately 45 minutes to complete, and confidentiality was ensured throughout the study.

RESULT

The findings of the study demonstrated a significant improvement in adolescents' knowledge regarding the prevention of cybercrime following the planned teaching programme. Among the 80 adolescents, most were aged 16–18 years (60%) and female (78.7%). The mean pre-test knowledge score was 12.18 ± 3.43, which increased significantly to 21.15 ± 4.18 in the post-test. Knowledge levels improved from predominantly good and average in the pre-test to very good and excellent in the post-test. A paired t-test revealed a statistically significant difference between pre- and post-test scores ($t = 16.517$, $df = 79$, $p < 0.05$), demonstrating the effectiveness of the planned teaching programme on cybercrime prevention.

Table 1: Significance of Difference Between Knowledge Scores in Pre-test and Post-test n=80

Overall	Mean	SD	Mean Difference	t-value	p-value
Pre-Test	12.18	3.435	8.962 + 4.853	16.517	0.0001
Post Test	21.15	4.176			S, p<0.05

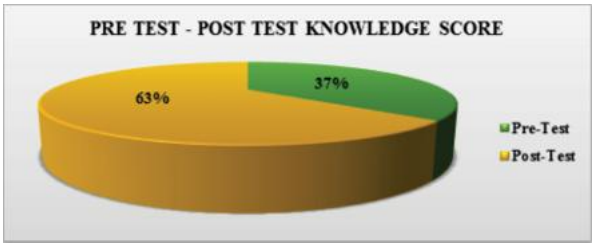

Figure 1: Significance of Difference Between Knowledge Scores in Pre-test and Post-test.

DISCUSSION

The present study assessed the effectiveness of a planned teaching programme on knowledge regarding the prevention of cybercrime among adolescents in selected colleges. Pre-test findings indicated moderate baseline knowledge (mean = 12.18 ± 3.43), consistent with previous studies reporting inadequate awareness of cyber safety among students. Following the intervention, the mean knowledge score increased significantly to 21.15 ± 4.18, with a paired t-test confirming statistical significance ($t = 16.517$, $df = 79$, $p < 0.05$). These results demonstrate the effectiveness of structured educational interventions in enhancing adolescents' knowledge of cybercrime prevention. The study highlights the important role of nurses and educators in promoting cyber safety awareness and supports the integration of such programmes into adolescent health and educational settings.

CONCLUSION

After detailed analysis, this study leads to the following conclusion:

The present study concluded that the planned teaching programme was effective in significantly improving adolescents' knowledge regarding the prevention of cybercrime. A statistically significant association was observed between the type of family and knowledge scores, while no significant association was found with other demographic variables. Overall, the structured educational intervention proved to be an effective strategy for enhancing awareness and promoting cyber safety among adolescents.

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