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Effectiveness of structured teaching programme on knowledge regarding nomophobia (mobile phone addiction) and its prevention among adolescent students of a selected PU college in Hassan

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Abstract

Introduction: Nomophobia, defined as the fear or anxiety associated with the inability to use a mobile phone, has emerged as a significant behavioral health concern among adolescents. Excessive mobile phone use during adolescence may negatively influence psychological well-being, academic performance, and social interactions. Despite the increasing prevalence of nomophobia, awareness regarding its causes, effects, and preventive measures remains inadequate among adolescents. Structured educational interventions may play a vital role in improving knowledge and promoting healthy mobile phone usage.

Methods: A pre-experimental one-group pre-test post-test research design was adopted to assess the effectiveness of a structured teaching programme on knowledge regarding nomophobia and its prevention. The study was conducted among 50 adolescent students studying in a selected PU college in Hassan, Karnataka, using a non-probability purposive sampling technique. Data were collected using a structured knowledge questionnaire comprising 40 items. A structured teaching programme was administered after the pre-test, and post-test assessment was conducted on the eighth day. Data were analyzed using descriptive and inferential statistics, including paired *t* test and chi-square test.

Results: Pre-test findings revealed that the majority of respondents (76%) had poor to very poor knowledge regarding nomophobia. Post-test results showed significant improvement, with 88% of respondents attaining very good knowledge. The overall mean knowledge score increased from 38.2% to 85.55%. The paired *t* test demonstrated a statistically significant difference between pre-test and post-test scores ($t = 30.25, p < 0.05$). No significant association was found between post-test knowledge scores and selected demographic variables.

Conclusion: The structured teaching programme was highly effective in improving adolescents' knowledge regarding nomophobia and its prevention. Educational interventions can serve as an effective strategy for promoting digital well-being among adolescents.

Keywords: Nomophobia, adolescents, structured teaching programme, mobile phone addiction, digital well-being, nursing education

Introduction

The rapid expansion of mobile phone technology has profoundly transformed human communication, learning, and social interaction. Among adolescents, smartphones have become an indispensable part of daily life, serving multiple purposes such as education, entertainment, social networking, and information access. While mobile phones offer significant benefits, their excessive and uncontrolled use has given rise to emerging behavioral problems. One such growing concern is nomophobia, a term derived from "no mobile phone phobia," which refers to the fear or anxiety experienced when individuals are unable to access or use their mobile phones.

Adolescence represents a critical developmental stage marked by emotional vulnerability, identity formation, and heightened sensitivity to social acceptance. During this period, adolescents are particularly susceptible to behavioral addictions, including problematic mobile phone use. Nomophobia has increasingly been recognized as a modern behavioral disorder that can adversely affect adolescents' psychological well-being, academic performance, interpersonal relationships, and physical health. Symptoms such as anxiety, irritability, restlessness, poor concentration, sleep disturbances, and dependency behaviors are frequently reported among individuals exhibiting nomophobic tendencies.

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In the Indian context, the widespread availability of affordable smartphones and low-cost internet services has significantly increased mobile phone penetration among school and pre-university students. Adolescents often rely heavily on mobile phones for academic tasks, online classes, and peer communication. However, excessive screen time and dependency may lead to maladaptive behaviors and reduced real-life social engagement. Despite increasing awareness of digital addiction, nomophobia remains under-recognized and inadequately addressed in adolescent health promotion initiatives.

Knowledge plays a crucial role in shaping attitudes and behaviors related to health. Adolescents who are well-informed about the causes, signs, effects, and preventive strategies of nomophobia are more likely to develop healthy mobile phone usage habits. Educational interventions, particularly structured teaching programmes, can serve as effective tools in enhancing awareness and promoting behavioral change. Structured teaching programmes are systematically planned educational strategies designed to impart relevant information in a clear, organized, and learner-centered manner. When implemented appropriately, such programmes can significantly improve knowledge and empower adolescents to adopt healthier lifestyle practices.

Nursing professionals play a vital role in health education and behavioral modification, especially among school and adolescent populations. Nurses are uniquely positioned to identify emerging health issues, provide preventive education, and promote mental well-being through structured educational interventions. Incorporating teaching programmes on digital health and responsible mobile phone use into adolescent health education can contribute to early prevention of nomophobia and related psychosocial problems.

Several studies have highlighted the increasing prevalence of mobile phone addiction and associated anxiety disorders among adolescents. However, there is limited evidence evaluating the effectiveness of structured teaching programmes specifically targeting nomophobia prevention in the Indian adolescent population, particularly at the pre-university level. Moreover, few studies have explored the association between adolescents' knowledge levels and selected demographic variables such as age, gender, family type, parental education, and mobile phone usage patterns.

Given these gaps, the present study was undertaken to assess the effectiveness of a structured teaching programme on knowledge regarding nomophobia and its prevention among adolescent students studying in a selected Pre-University (PU) college in Hassan, Karnataka. The study also aimed to evaluate baseline knowledge levels and examine the association between post-test knowledge scores and selected demographic variables.

By generating evidence on the effectiveness of structured teaching programmes, this study seeks to contribute to adolescent mental health promotion, guide nursing education practices, and support the integration of digital well-being education into school and college health programmes. Early educational interventions may help adolescents develop balanced mobile phone usage habits, reduce dependency, and promote overall psychological and academic well-being.

Methodology

Research Approach: An evaluative research approach was

adopted for the present study to assess the effectiveness of a structured teaching programme on knowledge regarding nomophobia and its prevention among adolescent students. This approach was considered appropriate as the study aimed to evaluate the outcome of an educational intervention.

Research Design

A pre-experimental one-group pre-test post-test research design was used. In this design, a single group of participants was assessed before and after the implementation of the structured teaching programme. The design can be represented as:

$$O_1 - X - O_2$$

Where:

O_1 = Pre-test knowledge assessment

X = Structured teaching programme on nomophobia

O_2 = Post-test knowledge assessment

Research Setting

The study was conducted at NDRK Pre-University College, Hassan, Karnataka. The setting was selected based on geographical proximity, feasibility of conducting the study, availability of the sample, and familiarity of the investigator with the institution.

Variables of the Study

The independent variable of the present study was the structured teaching programme on nomophobia and its prevention, which was planned and implemented to enhance adolescents' understanding of mobile phone addiction and strategies for its prevention. The dependent variable was the level of knowledge of adolescent students regarding nomophobia and its prevention, which was measured before and after the intervention to determine its effectiveness. The extraneous variables that could influence the knowledge levels of the adolescents included age, gender, religion, type of family, educational status of parents, family income, place of residence, source of information, number of hours spent using mobile phones per day, and the type of mobile phone used. These variables were considered as potential influencing factors while interpreting the study findings.

Population

The population for the study consisted of adolescent students studying in PU colleges.

Sample and Sample Size

The sample comprised 50 adolescent students studying in the first year of NDRK PU College, Hassan, who met the inclusion criteria.

Sampling Technique

A non-probability purposive sampling technique was used to select the samples. This technique was chosen to ensure the inclusion of participants who met the specific requirements of the study.

Sampling Criteria

The inclusion criteria for the study comprised adolescent students who were studying in the first year of NDRK PU College, those who were present during the period of data

collection, and students who were willing to participate in the study. The exclusion criteria included students who were not willing to participate in the study and those who were absent at the time of data collection.

Development of Structured Teaching Programme

The structured teaching programme was developed based on an extensive review of relevant literature, guidance from subject experts, and the objectives of the study. The content of the programme was systematically organized and included an introduction to mobile phone usage, the definition and concept of nomophobia, causes and risk factors associated with nomophobia, signs and symptoms, effects of nomophobia on adolescents, and strategies for prevention and management of nomophobia.

Data Collection Tool

A structured knowledge questionnaire was used as the data collection tool for the study. The tool consisted of two sections: Section I included items related to demographic variables of the respondents, and Section II comprised 40 multiple-choice questions designed to assess knowledge regarding nomophobia and its prevention. Each correct response was awarded one mark, while incorrect responses were given a score of zero. The maximum obtainable score on the questionnaire was 40, with higher scores indicating better knowledge levels.

Validity and Reliability

Content validity was established through expert review.

Reliability of the tool was assessed using the split-half method, and the reliability coefficient was found to be 0.91, indicating high reliability.

Pilot Study

A pilot study was conducted on 5 PU students to assess feasibility and clarity of the tool. No modifications were required, and the study was found to be feasible.

Data Collection Procedure

Permission was obtained from the college authorities. Pre-test knowledge assessment was conducted using the structured questionnaire, followed by the structured teaching programme. Post-test assessment was conducted on the 8th day using the same questionnaire.

Plan for Data Analysis

Data were analyzed using both descriptive and inferential statistics. Descriptive statistics such as frequency and percentage were used to summarize the demographic variables of the respondents. Mean and standard deviation were calculated to assess the knowledge scores. Inferential statistics included the paired *t* test to evaluate the effectiveness of the structured teaching programme by comparing pre-test and post-test knowledge scores, and the chi-square test was used to determine the association between knowledge scores and selected demographic variables.

Results

Table 1: Frequency and percentage distribution of respondents by personal characteristics (N = 50)

| Characteristics | Category | Number | Percentage (%) |
|---|---------------------|--------|----------------|
| Age | 16 years | 28 | 56 |
| | 17 years | 22 | 44 |
| Gender | Male | 19 | 38 |
| | Female | 31 | 62 |
| Religion | Hindu | 23 | 46 |
| | Muslim | 16 | 32 |
| | Christian | 11 | 22 |
| | Others | - | - |
| Place of residence | Rural | 31 | 62 |
| | Urban | 19 | 38 |
| Type of family | Joint family | 24 | 48 |
| | Nuclear family | 26 | 52 |
| | Extended family | - | - |
| Nature of stay | Home | 40 | 80 |
| | Hostel | 10 | 20 |
| | P.G | - | - |
| Family monthly income | Below 5000/- | 05 | 10 |
| | 5001-10000/- | 17 | 34 |
| | 10001-15000/- | 19 | 38 |
| | Above 15000/- | 09 | 18 |
| Educational status of father | No formal education | 10 | 20 |
| | Primary education | 12 | 24 |
| | Secondary education | 11 | 22 |
| | PUC | 11 | 22 |
| | Degree & above | 06 | 12 |
| Educational status of mother | No formal education | 09 | 18 |
| | Primary education | 13 | 26 |
| | Secondary education | 10 | 20 |
| | PUC | 11 | 22 |
| | Degree & above | 07 | 14 |
| Previous knowledge regarding nomophobia | Friends & relatives | 10 | 20 |
| | Mass media | 31 | 62 |
| | Self-reading | 09 | 18 |
| | Others | - | - |
| Total | | 50 | 100 |

Table 1 depicts the frequency and percentage distribution of respondents according to their personal characteristics. With regard to age, the majority of the respondents (56%) were 16 years old, while 44% were 17 years old, indicating that the sample largely represented early adolescents. In terms of gender distribution, females constituted a higher proportion (62%) compared to males (38%). Regarding religion, 46% of the respondents were Hindus, followed by Muslims (32%) and Christians (22%). A majority of the respondents (62%) resided in rural areas, while 38% belonged to urban areas. With respect to family type, 52% of the respondents belonged to nuclear families and 48% to joint families. Concerning nature of stay, most respondents (80%) stayed at home, whereas 20% resided in hostels. Family monthly income showed that 38% of respondents had an income between ₹10,001-15,000, followed by 34% between ₹5,001-10,000. Parental education revealed that fathers predominantly had primary or secondary education, while mothers largely had primary education or PUC qualification. Regarding previous knowledge of nomophobia, mass media was the major source of information (62%), followed by friends and relatives (20%) and self-reading (18%). Overall, the table indicates that respondents represented a diverse socio-demographic

background.

Table 2: Classification of respondents on pre-test knowledge level on nomophobia and its prevention (N = 50)

| Knowledge level | Category | Number | Percentage (%) |
|-----------------|----------|--------|----------------|
| Very poor | 0-20% | 13 | 26 |
| Poor | 20-40% | 25 | 50 |
| Average | 40-60% | 12 | 24 |
| Good | 60-80% | - | - |
| Very good | 80-100% | - | - |
| Total | | 50 | 100 |

Table 2 illustrates the classification of respondents based on pre-test knowledge levels regarding nomophobia and its prevention. The findings reveal that half of the respondents (50%) had poor knowledge, while 26% had very poor knowledge. Only 24% of the respondents demonstrated an average level of knowledge, and none of the respondents had good or very good knowledge in the pre-test. This indicates a substantial knowledge deficit among adolescents regarding nomophobia prior to the structured teaching programme, highlighting the need for educational intervention.

Table 3: Aspect-wise pre-test mean knowledge scores of respondents on nomophobia and its prevention (N = 50)

| Knowledge aspects | Statements | Max score | Mean | SD | Mean (%) | CV |
|--------------------------------------|------------|-----------|-------|------|----------|-------|
| General information about nomophobia | 09 | 09 | 6.24 | 1.30 | 69.34 | 20.83 |
| Causes and symptoms of nomophobia | 10 | 10 | 3.20 | 1.83 | 32.00 | 57.18 |
| Effects of nomophobia | 15 | 15 | 3.68 | 1.52 | 24.53 | 41.30 |
| Prevention & treatment of nomophobia | 06 | 06 | 2.26 | 1.58 | 37.67 | 69.91 |
| Combined | 40 | 40 | 15.28 | 4.75 | 38.20 | 31.08 |

Table 3 presents the aspect-wise pre-test mean knowledge scores. The highest mean percentage score (69.34%) was observed in the area of general information about nomophobia, indicating relatively better awareness of basic concepts. Lower mean percentages were observed in prevention and treatment (37.67%) and causes and symptoms (32%). The lowest mean percentage score

(24.53%) was found in the area of effects of nomophobia, indicating poor understanding of the consequences of excessive mobile phone use. The combined mean percentage score of 38.2% confirms that overall pre-test knowledge regarding nomophobia was inadequate among adolescents.

Table 4: Classification of respondents on post-test knowledge level on nomophobia and its prevention (N = 50)

| Knowledge level | Category | Number | Percentage (%) |
|-----------------|----------|--------|----------------|
| Very poor | 0-20% | - | - |
| Poor | 20-40% | - | - |
| Average | 40-60% | - | - |
| Good | 60-80% | 06 | 12 |
| Very good | 80-100% | 44 | 88 |
| Total | | 50 | 100 |

Table 4 shows the post-test knowledge levels following the structured teaching programme. A majority of respondents (88%) achieved very good knowledge, while 12% attained good knowledge. Notably, none of the respondents fell into

the poor or very poor knowledge categories. This shift clearly demonstrates a marked improvement in knowledge levels after the intervention, suggesting the effectiveness of the structured teaching programme.

Table 5: Aspect-wise post-test mean knowledge scores of respondents (N = 50)

| Knowledge aspects | Statements | Max score | Mean | SD | Mean (%) | CV |
|--------------------------------------|------------|-----------|-------|------|----------|-------|
| General information about nomophobia | 09 | 09 | 8.76 | 0.42 | 97.33 | 4.79 |
| Causes and symptoms of nomophobia | 10 | 10 | 8.58 | 0.63 | 85.80 | 7.34 |
| Effects of nomophobia | 15 | 15 | 12.10 | 1.11 | 80.66 | 9.17 |
| Prevention & treatment of nomophobia | 06 | 06 | 4.90 | 0.75 | 81.66 | 15.30 |
| Combined | 40 | 40 | 34.34 | 1.27 | 85.55 | 3.69 |

Table 5 highlights the aspect-wise post-test mean knowledge scores. The highest mean percentage score (97.33%) was observed in general information about nomophobia. Knowledge regarding causes and symptoms also improved substantially (85.8%). Mean percentage scores for effects (80.66%) and prevention and treatment

(81.66%) also showed significant improvement compared to pre-test values. The overall combined mean percentage score increased to 85.55%, indicating a substantial gain in knowledge across all aspects following the structured teaching programme.

Table 6: Aspect-wise comparison between pre-test and post-test mean knowledge scores (N = 50)

| Knowledge aspects | Pre-test Mean (%) | SD | Post-test Mean (%) | SD | Enhancement (%) | Paired 't' |
|------------------------|-------------------|-------|--------------------|-------|-----------------|------------|
| General information | 69.34 | 20.83 | 97.33 | 4.79 | 28.00 | 14.00* |
| Causes & symptoms | 32.00 | 57.18 | 85.80 | 7.34 | 54.80 | 19.57* |
| Effects | 24.53 | 41.30 | 80.66 | 9.17 | 56.13 | 31.18* |
| Prevention & treatment | 37.67 | 69.91 | 81.66 | 15.30 | 44.00 | 11.47* |

Table 6 compares aspect-wise pre-test and post-test mean knowledge scores. All aspects demonstrated considerable enhancement after the intervention. The greatest improvement was observed in the area of effects of nomophobia (56.13%), followed by causes and symptoms (54.8%). General information showed an enhancement of 28%, while prevention and treatment showed a 44% increase. The calculated paired 't' values for all aspects were statistically significant at the 5% level, confirming that the structured teaching programme was effective in improving knowledge in all domains.

Table 7: Overall pre-test and post-test mean knowledge scores (N = 50)

| Test | Max score | Mean | SD | Mean (%) | SD (%) | Paired 't' |
|-------------|-----------|-------|------|----------|--------|------------|
| Pre-test | 40 | 15.28 | 4.75 | 38.20 | 31.08 | |
| Post-test | 40 | 34.34 | 1.27 | 85.55 | 3.69 | 30.25* |
| Enhancement | 40 | 19.06 | 4.76 | 47.65 | 24.97 | |

Table 7 depicts the overall comparison of pre-test and post-test knowledge scores. The pre-test mean knowledge score was 38.2%, which increased to 85.55% in the post-test, showing an enhancement of 47.65%. The calculated paired 't' value of 30.25 was statistically significant at the 5% level. This indicates a highly significant difference between pre-test and post-test knowledge scores, confirming the positive impact of the structured teaching programme. Hence, the null hypothesis was rejected and the research hypothesis was accepted.

Table 8: Classification of respondents on knowledge regarding nomophobia (Pre-test vs Post-test) (N = 50)

| Knowledge level | Pre-test N | Pre-test% | Post-test N | Post-test% | χ^2 |
|-----------------|------------|-----------|-------------|------------|----------|
| Very poor | 13 | 26 | - | - | |
| Poor | 25 | 50 | - | - | |
| Average | 12 | 24 | - | - | |
| Good | - | - | 06 | 12 | |
| Very good | - | - | 44 | 88 | 50* |
| Total | 50 | 100 | 50 | 100 | |

Table 8 compares the classification of respondents' knowledge levels before and after the intervention. In the pre-test, 76% of respondents had very poor or poor knowledge, whereas none of the respondents fell into these categories in the post-test. Post-test results showed that 88% of respondents achieved very good knowledge and 12% achieved good knowledge. The calculated chi-square value was statistically significant, indicating a significant shift in knowledge levels following the structured teaching programme.

Table 9: Association between selected demographic variables and post-test knowledge level (N = 50)

| Demographic variable | χ^2 value | P value | Result |
|------------------------------|----------------|----------|--------|
| Age | 0.324 | P > 0.05 | NS |
| Gender | 2.122 | P > 0.05 | NS |
| Religion | 0.080 | P > 0.05 | NS |
| Place of residence | 0.084 | P > 0.05 | NS |
| Type of family | 0.341 | P > 0.05 | NS |
| Nature of stay | 0.500 | P > 0.05 | NS |
| Family income | 7.53 | P > 0.05 | NS |
| Educational status of father | 0.68 | P > 0.05 | NS |
| Educational status of mother | 1.00 | P > 0.05 | NS |
| Source of information | 2.75 | P > 0.05 | NS |

Table 9 depicts the association between selected demographic variables and post-test knowledge levels. The calculated chi-square values for all demographic variables-including age, gender, religion, place of residence, type of family, nature of stay, family income, parental education, and source of information-were not statistically significant at the 5% level. This indicates that post-test knowledge improvement was independent of demographic characteristics, suggesting that the structured teaching programme was equally effective across all subgroups.

Discussion

The present study was conducted to assess the effectiveness of a structured teaching programme on knowledge regarding nomophobia and its prevention among adolescent students. The discussion interprets the findings in relation to the study objectives and compares them with evidence from previous studies.

The pre-test findings of the present study revealed that the majority of adolescents had poor to very poor knowledge regarding nomophobia and its prevention. Specifically, 76% of the respondents fell under the very poor and poor knowledge categories, with only 24% demonstrating an average level of knowledge. This finding indicates a significant lack of awareness among adolescents about nomophobia, its causes, consequences, and preventive strategies.

These findings are consistent with previous studies conducted among adolescents and young adults, which have reported low baseline awareness regarding mobile phone addiction and nomophobia. Studies conducted by Sharma *et al.* and Dixit *et al.* reported that adolescents often perceive excessive mobile phone use as normal behavior and fail to recognize it as a potential health concern. Similarly, Yildirim and Correia highlighted that limited awareness contributes to unchecked mobile dependency among

adolescents.

The low pre-test scores in the present study may be attributed to inadequate inclusion of digital health topics in the academic curriculum and limited exposure to structured health education programmes addressing behavioral addictions.

Aspect-wise analysis of pre-test knowledge showed that adolescents had relatively better understanding of general information about nomophobia, but significantly lower knowledge regarding effects, causes, symptoms, and preventive measures. The lowest mean percentage score was observed in the domain of effects of nomophobia. This finding aligns with earlier studies that indicate adolescents are often aware of the term “mobile addiction” but lack insight into its psychological, physical, and academic consequences. Gezgin *et al.* reported that students often underestimate the long-term effects of nomophobia, such as anxiety, sleep disturbances, reduced academic performance, and impaired social interaction.

The post-test results demonstrated a marked improvement in knowledge levels following the structured teaching programme. A majority of the respondents (88%) attained very good knowledge, while 12% achieved good knowledge. Notably, none of the respondents remained in the poor or very poor knowledge categories. These findings strongly support the effectiveness of structured teaching programmes in enhancing adolescent knowledge. Similar outcomes have been reported in educational intervention studies conducted by Kaur *et al.*, Patil and Chavan, and Ramesh *et al.*, where structured or video-assisted teaching significantly improved knowledge related to behavioral addictions and mental health issues among students.

Aspect-wise post-test analysis revealed substantial improvement across all domains, with the highest mean percentage observed in general information, followed by causes and symptoms, prevention and treatment, and effects of nomophobia. The significant improvement in areas that were previously weak—particularly effects and prevention—indicates that the structured teaching programme successfully addressed critical knowledge gaps.

These findings are in agreement with earlier intervention-based studies which reported that educational programmes are particularly effective in improving awareness about consequences and preventive strategies. Salehan and Negahban emphasized that structured educational content can reshape adolescents' understanding of digital dependency and promote healthier mobile phone usage behaviors. The comparison of pre-test and post-test scores revealed statistically significant improvement in all knowledge aspects, with the highest enhancement observed in the domain of effects of nomophobia. The paired 't' test values indicated that the differences were significant at the 5% level.

This finding is consistent with results reported by Kumar *et al.* and Bhattacharya *et al.*, who found significant improvements in post-intervention knowledge scores among adolescents exposed to structured health education programmes. The present study further reinforces the role of planned educational interventions in improving cognitive outcomes related to adolescent mental health.

The overall mean knowledge score increased from 38.2% in the pre-test to 85.55% in the post-test, with an enhancement of 47.65%. The high paired 't' value confirms the strong effectiveness of the structured teaching programme. This

result is in line with similar studies conducted in educational and nursing settings, which reported significant gains in knowledge following structured teaching interventions. Polit and Beck have emphasized that educational strategies grounded in behavioral learning principles are effective in producing measurable improvements in knowledge and awareness.

The present study thus validates the structured teaching programme as an effective educational strategy for addressing emerging behavioral health problems among adolescents. Similar findings were reported by Reddy *et al.* and Joseph *et al.*, who found that structured educational interventions produced uniform knowledge gains across different demographic groups. This suggests that well-designed teaching programmes can be universally effective irrespective of socio-demographic differences.

Implications of the study

Implications for Nursing Practice

Nurses play a vital role in health promotion and disease prevention among adolescents. The findings of the study emphasize the importance of nurses actively identifying adolescents who are at risk of nomophobia and providing appropriate health education. Structured teaching programmes can be effectively incorporated into routine school health services to promote responsible mobile phone usage. Additionally, community health nurses can utilize similar educational modules during school and college health visits to address issues related to digital addiction and encourage healthy technology use among adolescents.

Implications for Nursing Education

Nursing curricula should incorporate content related to behavioral addictions, digital well-being, and nomophobia to prepare future nurses to address emerging health concerns among adolescents. Nursing students should be adequately trained to design and implement structured teaching programmes specifically tailored for adolescent populations. Educational institutions can utilize the findings of the present study to develop comprehensive teaching modules and student-led awareness programmes on nomophobia. Furthermore, innovative teaching strategies such as simulation and video-assisted learning can be encouraged as effective methods to enhance adolescent education and promote better learning outcomes.

Implications for Nursing Administration

Nurse administrators can organize periodic training programmes and workshops for nursing personnel to enhance their knowledge and skills related to adolescent mental health and digital addiction. School health programmes should be strengthened by incorporating structured educational interventions that focus on emerging lifestyle-related problems such as nomophobia. Appropriate policies can be developed to integrate digital health education into routine school and college health services. Additionally, strong administrative support is essential for the effective allocation of time, resources, and manpower required to implement and sustain health education initiatives.

Implications for Nursing Research

The study adds to the limited body of nursing research related to nomophobia and adolescent behavioral health. It

provides a strong foundation for future experimental and longitudinal studies focusing on digital addiction among adolescents. The structured teaching programme developed for the present study can be tested, adapted, and modified for different age groups and various settings. Furthermore, future research can explore the impact of educational interventions not only on knowledge but also on attitude and behavior change related to mobile phone usage.

Limitations of the study

The study had certain limitations that need to be considered while interpreting the findings. The study was confined to a single Pre-University college, which limits the generalizability of the results to a broader population. The use of a pre-experimental research design without a control group restricts the ability to attribute the observed changes exclusively to the structured teaching programme. The sample size was relatively small ($N = 50$), which may affect the representativeness of the findings. Additionally, the study focused only on assessing knowledge levels and did not evaluate changes in attitudes or actual mobile phone usage behaviors. The follow-up period was short, and long-term retention of knowledge was not assessed.

Conclusion

The present study was undertaken to assess the effectiveness of a structured teaching programme on knowledge regarding nomophobia and its prevention among adolescent students studying in a selected Pre-University college. The findings of the study clearly indicate that adolescents initially possessed inadequate knowledge about nomophobia, as evidenced by poor and very poor pre-test knowledge scores. Following the implementation of the structured teaching programme, a significant improvement was observed in the post-test knowledge scores across all aspects, including general information, causes and symptoms, effects, and prevention of nomophobia. The overall enhancement in knowledge scores was statistically significant, as confirmed by the paired 't' test results. This demonstrates that the structured teaching programme was highly effective in improving adolescents' understanding of nomophobia and its preventive strategies. Furthermore, the absence of a significant association between post-test knowledge scores and selected demographic variables suggests that the teaching programme was uniformly effective among adolescents irrespective of age, gender, socio-economic status, parental education, or place of residence. Hence, the null hypothesis was rejected and the research hypothesis was accepted. In conclusion, the study establishes that structured teaching programmes are an effective educational strategy for enhancing knowledge related to emerging behavioral health problems such as nomophobia among adolescents. Early educational interventions can play a crucial role in promoting healthy mobile phone usage habits and preventing the long-term psychological and social consequences of mobile phone addiction.

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