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A study to assess the effectiveness of video assisted teaching programme on prevention of nomophobia among under graduate nursing students at SJMINS, Chitradurga

AKASH G M [1,*] and PAVITHRA M [2]

[1] *M. Sc Nursing Scholar, Department. Of Mental Health Nursing, SJM institute of nursing sciences, Chitra Durga, India.*
[2] *Associate Professor and HOD, Department. Of Mental Health Nursing, SJM institute of nursing sciences, Chitra Durga, India.*

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Abstract

Nomophobia is an extreme, irrational and overwhelming fear of being without a mobile phone. Nomophobia is a fairly recently discovered phobia which is known as a 21st-century condition. The individual may experience negative patterns of thoughts and negative feelings, such as anxiety, stress, fear or panic. Hence this study aimed to assess the effectiveness of video assisted teaching programme on prevention of nomophobia among under graduate nursing students at SJMINS, Chitradurga. Pre-experimental one group pretest posttest study was conducted. We Enrolled 80 undergraduate nursing students by using probability sampling with lottery method in SJMINS, Chitradurga. Sociodemographic data sheet and structured knowledge questionnaire were used to obtain data from participants. Descriptive and inferential statistics was used to analyze the data. This study revealed that 45.00% (n=36) participants had inadequate knowledge, 51.20% (n=41) participants had moderate knowledge and 3.80% of participants had adequate knowledge in the pretest. 31.20% (n=25) participants had moderate knowledge and 68.80% (n=55) participants had adequate knowledge in the posttest. there was statistically significant difference between pretest mean score (15.76 + 3.71) and posttest mean score (24.09 + 2.26). The calculated t value= -16.835, df=79, p=0.000. The present study is concluded that video assisted teaching program was found to be effective in improving the knowledge scores among under graduate nursing students, SJMINS, Chitradurga.

Keywords: Nomophobia; Undergraduate nursing students; Video assisted teaching programme; Prevention

1. Introduction

Smartphones are mini computers with diverse functions like PCs, allowing users to use web browsing, emails, downloads, and games.1-2 Mostly used by young adults, they are digital natives, ahead in technology usage due to their advanced and complex nature.3A survey by the Mobile Ecosystem Forum found that the highest smartphone penetration rate was among 16-24 year olds (37%), followed by those aged 24-35 (34%). Older Indians had a 10% penetration rate.4 A Boston Consulting Group report revealed that 84% of Indian smartphone users check their phones within 15 minutes of waking up, with 31% of waking time spent on smartphones.5Mobile phones have become an integral part of daily life, providing entertainment, social networking, world news access, and more. However, the thought of being without a mobile phone can cause anxiety. People with nomophobia may replace physical interactions with virtual online relationships, relying on their phones for socialization and emotional support. This dependence can increase the likelihood of developing nomophobia, especially if individuals already experience anxiety, poor self-esteem, emotional difficulties, insecure attachments, or lack of personal relationships.6Nomophobia is a modern-day disorder involving fear of losing access to one's mobile phone, often referred to as mobile phone dependency or addiction.7 It is

* Corresponding author: AKASH G M

a socio-psychological illness resulting from new technologies, causing discomfort or anxiety when out of contact. Research has shown that nomophobia can endanger human health, particularly in traffic, where texting and driving can lead to accidents and neck and back pain.8 Nomophobia negatively impacts psychological health, increasing stress, depression, and anxiety symptoms.9-10 It can lead to rejection, loneliness, insecurity, and low self-esteem. It also negatively affects sleep quality and academic motivation. 11-12Young adults may experience pressure to stay online, leading to decreased motivation and success.13 Nomophobia and smartphone use may lead to academic failure, as individuals avoid negative emotions and responsibilities. 14This cognitive mechanism reduces working memory capacity, making it difficult to inhibit responses and perform complex tasks. Understanding the cognitive impact of smartphones, particularly among young adults in developing nations, is crucial.15 NOMOPHOBIA symptoms include anxiety, respiratory alterations, trembling, perspiration, agitation, disorientation, and tachycardia. It can be a proxy for other disorders, making diagnosis judicious. Complexity challenges patients, family members, and physicians. Limiting mobile phone use is necessary due to technological advancements.16

Objectives

- To assess the pre-test knowledge regarding nomophobia.
- To plan and implement video assisted teaching programme on prevention of nomophobia.
- To assess the effectiveness of video assisted teaching programme on prevention of nomophobia, by comparing the pre-test post-test scores.
- To find out association between pretest knowledge scores regarding prevention of nomophobia with their selected socio demographic variables.

1.1. Assumptions of the study

- Under graduate students have poor knowledge regarding prevention of Nomo phobia.
- Various factors influence the knowledge of prevention of Nomo phobia among undergraduate students.
- Video assisted teaching programme will improve the knowledge of prevention of Nomo phobia among under graduate students.

1.2. Hypothesis

- H01-There will be no statistically significant difference between pre & posttest level of knowledge scores regarding prevention of nomophobia among undergraduate students at SJMINS, Chitradurga.
- H02- There will be no statistically significant association between posttest knowledge on prevention of nomophobia with selected socio demographic variables.

2. Methodology

2.1. Research approach

In the present study researcher adopted a quantitative research approach to investigate the effectiveness of video assisted teaching programme on prevention of nomophobia among under graduate nursing students at SJMINS Chitradurga.

2.2. Research design

In order to achieve the objectives of present study pre-experimental one group pre-test & post -test design was be used as a research design for the study.

2.3. Setting

Present study was conducted at SJM Institute of Nursing Sciences, Chitradurga.

2.4. Population

- Target population

Undergraduate nursing students.

- Accessible population

Undergraduate nursing students studying in SJMINS, Chitradurga.

2.5. Sample

The sample of the study consists of total 80 students studying SJMINS, Chitradurga.

2.6. Reliability of the tool

Reliability is the extent to which a research tool yields consistent results across multiple measurements. The attention shifts to internal coherence, precision, stability, equivalence, and homogeneity after that. After expert validation, a reliability test is conducted on the tool. The structured knowledge questionnaire was administered to 10 samples. The tool's dependability is determined using the raw score method, which is a condensed form of Karl Pearson's correlation algorithm. The structured knowledge questionnaire's reliability was tested and found Cornbach alpha 0.71.

3. Result

The data is present under following headings.

- Section I: Analysis of demographic characteristics
- Section II: Analysis of pre-test and post-test knowledge scores of respondents and effectiveness of video assisted teaching programme.
  - Analysis of pretest knowledge scores
  - Analysis of posttest knowledge scores
  - Effectiveness of video assisted teaching program on overall knowledge scores.
  - Effectiveness of video assisted teaching programme on section wise knowledge scores.
- Section III: Analysis of association between demographic variables with posttest knowledge scores.

3.1. Section I: Analysis of demographic characteristics

- This study reveals that majority of participants were 20 years old, comprising 52.50% of the total with 42 participants. The age group of 19 is the least represented, with only 1 participant, accounting 1.20% of the group.
- females were constituting 62.50% with 50 participants and males representing 37.50% with 30 participants.
- 46.20% of the total with 37 participants were Hindus. 37.50% with 30 participants belonged to Christianity. 16.20% with 13 participants were Muslims.
- 87.50% (n=70) of participants belonged to nuclear families and 12.50% (n=10) participants were part of joint families.
- 48.80% (n=39) participants were in their B.Sc(N). 2nd year, while 51.20% (n=41) participants were in their 3rd year B.Sc(N).
- A significant majority 95.00% of participants reported that they use only one mobile phone
- In this study it was found that 78.80% of participants have mobile phones priced between
- ₹10,000 and ₹30,000. 56.20% of participants spend between 2 to 3 hours on their phones each day. 30.00% participants spend more than 3 hours on their phones daily.
- 67.50% of participants spend between ₹201 and ₹300 per month. 12.50% participants spend more than ₹300 per month. Another 11.20% participants spend less than ₹100.
- 45.00% of participants consume between 500 and 1000 MB of data per day, and 43.80% of participants use more than 1500 MB daily.
- 73.80% (n=59) participants reside in a hostel and 21.20% of participants reside in home.
- 71.20% participants reported that they keep their phones on silent or vibrate mode in classroom and 8 participants (10%) reported that they do not carry phone to classroom.
- 52.50% of participants complained headache Both disturbance of sleep and decreased participation in social activities are reported by 8.80% of participants, 30.00% participants were experienced all the mentioned problems combined.
- 92.50% (n=74) participants use their phones for all listed purposes such as calling and texting, playing games, academic activities, social media, and avoiding loneliness.

3.2. Section II Analysis of pretest and effectiveness of video assisted teaching programme

3.2.1. Analysis of Pretest knowledge level

Table 1 Section wise pretest Mean, SD and mean % of knowledge scores of respondents on knowledge regarding prevention of nomophobia

Section wise knowledge of nomophobia	No. of items	Mean	StandardDeviation	Mean %
Section A: Introduction, Meaning and definition	6	4	1	66.5
Section B: Causes and clinical manifestations	6	4	1	66.5
Section C: Assessment and management and prevention	18	9	3	50

Table 2 Description of overall pretest knowledge scores

Pretest	No. of items	Mean	Std. Deviation	Mean %
Knowledge scores	30	15.76	3.719	52.53%

In this study it was found that overall pretest knowledge mean score 15.76 + 3.71 and mean percentage 52.53%

Table 3 Distribution of level of pre-test knowledge

Level of knowledge	Frequency	Percentage
Inadequate(<15)	36	45.0
Moderate (16-22)	41	51.2
Adequate (23-30)	3	3.8

3.2.2. Analysis of post-test knowledge scores

Table 4 Section wise posttest Mean, SD and mean % of knowledge scores of respondents on knowledge regarding prevention of nomophobia

Section wise knowledge scores	No. of Items	Mean	Standard Deviation	Mean %
Section A: Introduction, Meaning and definition	6	5	1	83.3
Section B: Causes and clinical manifestations of nomophobia.	6	5	1	83.3
Section C: Assessment and management and prevention of nomophobia.	18	13	2	72.2

Table 5 Description of overall posttest knowledge scores

Posttest	No. of items	Mean	Std. Deviation	Mean %
Knowledge scores	30	24.09	2.268	80.3

N=80 p=<0.05 In this study it was found that overall posttest knowledge mean score 24.09 + 2.26 and mean percentage 80.3%

Table 6 Distribution of based on level of posttest knowledge

Level of knowledge	Frequency	Percent
Inadequate (<15)	0	0
Moderate (16-22)	25	31.3
Adequate (23-30)	55	68.8

3.2.3. Effectiveness of video assisted teaching program on section wise knowledge scores.

Table 7 Paired comparison of pretest and posttest section wise knowledge scores

Paired Samples Statistics							
Section wise knowledgescores	**Mean**	**Std. Deviation**	**Mean difference**	**Std. Deviation difference**	**t**	**df**	**P value**
pretest Section A	3.53	1.136	-1.900	1.446	-11.752	79	0.000**
Posttest Section A	5.43	.792					
pretest Section B	3.70	1.174	-1.513	1.599	-8.460	79	0.000**
Posttest Section B	5.21	.964					
pretest Section C	8.54	2.521	-4.913	2.904	-15.129	79	0.000**
Posttest section C	13.45	1.728					

N=80 p=<0.05

- Section A, which covers the introduction, meaning, and definition of nomophobia, participants' mean scores increased from 3.53 in the pretest to 5.43 in the post test (t=-11.752, df=79 p=0.000).
- Section B, which addresses the causes and clinical manifestations of nomophobia, the mean score rose from 3.70 before the intervention to 5.21(t=- 8.460,df=79,p=.000).
- Section C, which focuses on the assessment, management, and prevention of nomophobia; the mean score surged from 8.54 pretest to 13.45 posttest (t=-15.129, df=79, p=.000).

3.2.4. Effectiveness of video assisted teaching program on overall knowledge scores.

Table 8 Paired comparison of pretest and posttest overall knowledge scores

Paired Samples t test							
Knowledgescores	**Mean**	**Std. Deviation**	**Mean difference**	**Std. Deviation difference**	**t**	**df**	**p value**
Pretest	15.76	3.719	-8.325	4.423	-16.835	79	0.000**
Posttest	24.09	2.268					

N=80 p=<0.05

The data was calculated by using paired t test, there was statistically significant difference between pretest mean score (15.76 + 3.71) and posttest mean score (24.09 + 2.26). The calculated t value= -16.835, df=79, p=0.000**

Table 9 Distribution of participants based on level of knowledge

Level of knowledge	Pretest		Posttest	
	Frequency	Percentage	Frequency	Percentage
Inadequate (<15)	36	45.00%	0	0
Moderate (16- 22)	41	51.20%	25	31.20%
Adequate (23- 30)	3	3.80%	55	68.80%

3.3. Section III: Analysis of association between demographic variables with posttest knowledge scores.

Table 10 Association between demographic variables with posttest knowledge scores

Sociodemographic variables	Categories	Knowledge posttest		Chi-square	df	P value
		Moderate (16-22)	Adequate (23-30)			
		F	f			
Age	19 years	0	1	0.596	3	0.897 NS
	20 years	13	29			
	21 years	11	22			
	22 years	1	3			
Gender	Male	11	19	0.656	1	0.418 NS
	Female	14	36			
Religion	Hindu	11	26	0.102	2	0.950 NS
	Muslim	4	9			
	Christian	10	20			
Type of family	Nuclear	22	48	0.008	1	0.927 NS
	Joint family	3	7			
Year of study	2nd year	14	25	0.765	1	0.382 NS
	3rd year	11	30			
Number of mobile phones	1 phone	24	52	.077	1	0.782 NS
	2> phones	1	3			
Cost of mobile phone	<10000	3	10	.992	3	0.803 NS
	10000-30000	21	42			
	30000-50000	1	2			
	50000>	0	1			
Time spent on mobile phone	<1.5 hour	4	7	6.402	2	0.033* S
	2-3 hours	17	28			
	3> hours	4	20			
Money spent per month	<Rs.100	3	6	2.513	3	0.473 NS
	Rs. 100-200	4	3			
	Rs. 200-300	15	39			

	Rs. 300>	3	7			
Data spent per day	<500MB	2	2	7.872	3	0.042* S
	500-1000MB	14	22			
	1000-1500MB	2	3			
	>1500MB	7	28			
Place of residence	Hostel	16	43	2.519	2	0.284 NS
	Home	8	9			
	Others	1	3			
In classroom mobile phone is in	Silent or vibrate	17	40	.734	2	0.693 NS
	Switched off	6	9			
	Not carrying to class	2	6			
Problems due to mobile usage	Disturbance in sleep	3	4	1.067	3	0.785 NS
	Headache	12	30			
	Decreased social activities	3	4			
	All of the above	7	17			
Purpose of using mobile phones	Calling and texting	1	3	4.552	3	0.208 NS
	Academic	1	0			
	Social media	1	0			
	All of the above	22	52			

N=80 NS=not significant *S=significant p=<0.05

In this study the association between selected sociodemographic variables and posttest knowledge scores was analysed by using Chi square test. Data spent per day (X2=3.872) and time spent on mobile phone (X2=3.402) were significantly associated with posttest knowledge scores at p value <0.05. Age (X2=.596), gender (X2=.656), religion (X2=.102), type of family (X2=.008), year of study (X2=.765), number of mobile phones (X2=.077), cost of mobile phone (X2=.992), money spent per month (X2=2.513), place of residence (X2=2.519), in classroom mobile phone is in (X2=.734), problems due to mobile usage (X2=.1.067), purpose of using mobile phones (X2=4.552) were less than table values at p=<0.05 significant levels with respective degree of freedom.

4. Discussion

Description of socio demographic variables. The socio demographic data was obtained using sociodemographic data sheet, which was self-administered data sheet for participants. The following findings of sociodemographic variables discussed below:

- This study reveals that majority of participants were 20 years old, comprising 52.50% of the total with 42 participants.
- Females were constituting 62.50% with 50 participants and males representing 37.50% with 30 participants.
- 46.20% of the total with 37 participants were Hindus. 37.50% with 30 participants belonged to Christianity. 16.20% with 13 participants were Muslims.
- 87.50% (n=70) of participants belonged to nuclear families and 12.50% (n=10) participants were part of joint families.
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- 78.80% of participants have mobile phones priced between ₹10,000 and ₹30,000.
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- 73.80% (n=59) participants reside in a hostel and 21.20% of participants reside in home.
- 71.20% participants reported that they keep their phones on silent or vibrate mode in classroom and 8 participants (10%) reported that they do not carry phone to classroom.
- 52.50% of participants complained headache Both disturbance of sleep and decreased participation in social activities are reported by 8.80% of participants, 30.00% participants were experienced all the mentioned problems combined.
- 92.50% (n=74) participants use their phones for all listed purposes such as calling and texting, playing games, academic activities, social media, and avoiding loneliness.

4.1. Objective 1: To assess the pre-test knowledge regarding nomophobia

Overall pretest knowledge mean score 15.76 + 3.71 and mean percentage 52.53%. 45.00% (n=36) participants had inadequate knowledge, 51.20% (n=41) participants had moderate knowledge and 3.80% of participants had adequate knowledge in the pretest.

4.2. Objective 2: To plan and implement video assisted teaching programme on prevention of nomophobia

Participants underwent video assisted teaching program. Researcher developed lesson plan on meaning, causes, clinical features, management and prevention of nomophobia among undergraduate nursing students. Teaching programme was given with help of AV aids such as Power point, handouts and playing videos etc. The duration was 45 mins.

4.3. Objective 3: To assess the effectiveness of video assisted teaching programme on prevention of nomophobia, by comparing the pre-test post-test scores

There was statistically significant difference between pretest mean score (15.76 + 3.71)and posttest mean score (24.09 + 2.26). The calculated t value= -16.835, df=79,p=0.000**. 45.00% (n=36) participants had inadequate knowledge, 51.20% (n=41) participants had moderate knowledge and 3.80% of participants had adequate knowledge in the pretest. 31.20% (n=25) participants had moderate knowledge and 68.80% (n=55) participants had adequate knowledge in the posttest.

4.4. Objective 4: To find out association between posttest knowledge scores regarding prevention of nomophobia with their selected socio demographic variables

In this study the association between selected sociodemographic variables and posttest knowledge scores was analysed by using Chi square test. Data spent per day (X2=3.872) and time spent on mobile phone (X2=3.402) were significantly associated with posttest knowledge scores at p value <0.05.

5. Conclusion

Under graduate nursing students had inadequate knowledge regarding prevention of nomophobia before the video assisted teaching programme. There was statistically significant difference between pretest mean and posttest mean scores regarding prevention of nomophobia among under graduate nursing students. Hence, video assisted teaching programme was found to be effective in improving the knowledge among participants.Data spent per day (X2=3.872) and time spent on mobile phone (X2=3.402) were significantly associated with posttest knowledge scores at p value <0.05. Other sociodemographic variables were significantly associated.

Compliance with ethical standards

Disclosure of conflict of interest

No conflict of interest to be disclosed.

Statement of ethical approval

Institutional Ethical Permission was obtained from the ethical team before conducting the study.

Statement of informed consent

Informed consent was obtained from all individual participants included in the study.

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