

A Study to Assess the Effectiveness of the Structured Teaching Programme on Knowledge Regarding Digital Detox Among B.Sc. Nursing Students at Selected Colleges of South Gujarat

Mrs. Divya Pancholi¹, Mrs. Nirali Desai², Mrs. Anju Gavit³

¹Associate Professor, Department of Mental Health Nursing, Sandra Shroff College of Nursing, Vapi

^{2,3}Nursing Tutor, Department of Mental Health Nursing, Sandra Shroff College of Nursing, Vapi

Abstract

INTRODUCTION: Digital technology has become an integral part of students' academic and personal lives, with smartphones and the Internet serving as essential tools for learning, communication, and entertainment. Nursing students are particularly vulnerable to excessive screen time due to online education, digital assignments, and continuous social media engagement. Prolonged and unregulated digital device use has been associated with adverse outcomes, including sleep disturbances, poor concentration, stress, anxiety, musculoskeletal discomfort, and problematic smartphone use. Digital detox, defined as a planned reduction or temporary abstinence from digital devices, has emerged as an effective approach to promoting healthier technology use and improving overall well-being. Structured Teaching Programmes (STPs) are widely recognized as effective educational interventions for enhancing knowledge and encouraging positive behavioural change. However, evidence regarding digital detox interventions among nursing students in India remains limited. Therefore, this study aimed to assess the effectiveness of a Structured Teaching Programme on digital detox among B.Sc. Nursing students to promote healthier digital habits and improve awareness regarding responsible technology use.

OBJECTIVES

- To assess the level of knowledge regarding Digital Detox among B.Sc. Nursing Students at selected colleges of South Gujarat.
- To evaluate the effectiveness of a structured teaching program on knowledge regarding Digital Detox among B.Sc. nursing students at selected colleges of South Gujarat.
- To find the association between the pre – test level of knowledge regarding Digital detox with selected demographic variables.

METHOD: The research design used in the study is a pre-experimental one group pre-test and post-test design. The research approach used in this study is a quantitative approach. A total of 60 samples were selected from Sandra Shroff ROFEL College of Nursing. The convenience sampling technique was used for the selection of the samples. Data was collected by using the tool as a structured knowledge questionnaire and Likert's scale.

RESULT: In this research study the shows that the mean gain in knowledge was 5.17 with mean and SD 12.63 ± 3.75 and gain in post-test knowledge with mean and SD 17.8 ± 0.97. The “t” value was highly significant (t=10.34 at p<0.05) level indicating the structured teaching programme regarding digital detox

was very effective. Hence hypothesis H_1 is accepted. The comparison of the pre-test and post-test knowledge and attitude score showed that there was a significant gain in knowledge and change in attitude of the students after STP. The association between pre-test knowledge and selected demographic variables were found out by chi square. The finding reveals that there was association between pre- test knowledge with selected demographic variables age (0), gender (1.142), residence (0.89), year of study(0.043), education of father(1.48), education of mother(2.38) socio economic status(0), ownership of digital device(0.70), access to internet at home(0), how many hours you spend on screen daily(1.44), source of information regarding digital detox(0.028).

CONCLUSION: Analysis shows that there was a significant difference between pre-test and post-test knowledge score at $p < 0.05$ level of significance. So H_2 is accepted. Analysis shows that there is an association between pre-test knowledge with selected demographic variables. So H_3 is accepted.

KEYWORDS: Assess, Effectiveness, Structured Teaching Programme, Digital Detox

INTRODUCTION

Digital technology has become deeply embedded in modern life, shaping communication, education, healthcare delivery and social interaction. Among young adults—particularly college students—smartphones and the Internet have become indispensable tools for academic work, entertainment and social connectivity. Nursing students, who must maintain high academic performance and clinical competence, are increasingly exposed to prolonged screen time due to online learning, digital assignments and continuous access to social media platforms. Excessive and unregulated use of digital devices has been associated with sleep disturbances, reduced concentration, musculoskeletal discomfort, anxiety, stress and dependency-like behaviours [1,2].

The concept of digital detox, defined as a voluntary and structured break from digital devices, has emerged as a promising strategy to restore balance, improve well-being and promote healthier technology habits. Structured Teaching Programmes (STPs) are widely used in nursing education to enhance knowledge and promote behavioural change. An STP on digital detox can empower nursing students with awareness, self-regulation strategies and practical tools to manage their digital habits effectively. Given the increasing digital dependency among youth in India, assessing the effectiveness of such an intervention is both timely and essential.

BACKGROUND OF THE STUDY

India has witnessed an unprecedented rise in smartphone penetration, with over 750 million smartphone users, making it one of the largest digital populations globally [3]. College students spend an average of 4–7 hours per day on smartphones, much of which is devoted to social media, gaming and streaming[4]. Nursing students rely heavily on digital devices for academic purposes, including e-learning platforms, virtual simulations and online clinical resources. However, studies indicate that nursing students are also vulnerable to problematic smartphone use, which may negatively impact academic performance, sleep quality and mental health [5].

A 2022 Indian meta-analysis reported that 58% of young adults exhibited some level of Internet addiction [6]. A 2021 survey among school and college students found 10–30% prevalence of technology addiction, with higher rates among urban youth [7]. Global studies show that 20–45% of university students meet criteria for problematic smartphone use [8]. Excessive screen time has been linked to poor sleep, stress,

anxiety and reduced academic performance [9]).

Digital detox interventions—ranging from short breaks to structured programmes—have demonstrated improvements in stress, sleep, emotional well-being and digital dependency scores [10,11]. However, limited research exists in the Indian context, especially among nursing students in Gujarat. Given the academic demands and clinical responsibilities of B.Sc. Nursing students, promoting healthy digital habits is crucial. A Structured Teaching Programme on digital detox may enhance their knowledge and encourage behavioural changes that support academic success and personal well-being.

NEED FOR THE STUDY

The rapid increase in smartphone and Internet use among young adults, particularly nursing students, has raised concerns about excessive digital dependency and its adverse effects on academic performance, mental health, sleep quality, and physical well-being. Prolonged screen time can impair concentration, increase stress and anxiety, and contribute to musculoskeletal and visual problems, potentially affecting students' clinical competence and overall quality of life. Despite growing global recognition of digital detox as an effective strategy for promoting healthier technology use, awareness and research on structured digital detox interventions among Indian nursing students remain limited, especially in Gujarat. Therefore, evaluating the effectiveness of a Structured Teaching Programme on digital detox is essential to enhance students' knowledge, encourage healthy digital habits, and support their academic success, personal well-being, and professional preparedness.

OBJECTIVES OF THE STUDY

- To assess the level of knowledge regarding Digital Detox among B.Sc. Nursing Students at selected colleges of South Gujarat.
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HYPOTHESIS

- **H01:** - There is no significant difference between the level of knowledge regarding Digital Detox among B.sc nursing students at the 0.05 level of significance.
- **H1:** - There will be a significant difference between the level of knowledge regarding Digital Detox among B.Sc. nursing students at the 0.05 level of significance.
- **H02:** -There will be no significant association between pre-test level of knowledge regarding Digital Detox with selected demographic variables among B.Sc. Nursing students at the 0.05 level of significance.
- **H2:** - There will be a significant association between pre-test level of knowledge regarding Digital Detox with selected demographic variables among B.Sc. Nursing students at the 0.05 level of significance.

RESEARCH METHODOLOGY

Research Approach: Quantitative research.

Research Design: Pre-experimental one group pre-test and post-test design.

Variable Under Study:**Independent Variable:** Structured teaching programme on Digital Detox.**Dependent Variable:** Knowledge score regarding Digital Detox.**Extraneous Variable:** Age, gender, course of study, residence, socio- economical status, education of father, education of mother, previous knowledge regarding Digital Detox.**Target Population:** students at selected B.Sc. nursing colleges of South Gujarat.**Samples:** students at selected B.Sc. nursing colleges of South Gujarat.**Sample Size:** 60 students at selected B.Sc. nursing colleges of South Gujarat.**Sampling Technique:** A non-probability convenient sampling technique was used to select the sample.**SAMPLING CRITERIA****INCLUSIVE CRITERIA**

- **Students:**
- Who can read and write English.
- Who are willing to participate in the study

EXCLUSIVE CRITERIA

- **Students:**
- Who were absent on the day
- Who are mentally unfit.

DESCRIPTION OF THE TOOL:

A tool was developed by the investigator based on this experience, review of literature and expert's opinion.

PART 1: DEMOGRAPHIC DATA:

Questionnaire for demographic data collection tool such as Age, gender, residence, year of study, education of father, education of mother, socio economic status, ownership of digital device, access to internet at home, how many hours spend on screen daily, source of information regarding digital detox if yes then specify regarding the digital detox.

PART 2: KNOWLEGDE QUESTINNAIRE DATA:

Structured knowledge questionnaire consisting of 20 items on knowledge regarding digital detox. All items are given score of 1 for each correct answer 20 score for wrong answer.

SCORING INTERPRETATION:

Inadequate knowledge	0-7	<50%
Moderate adequate knowledge	8-14	51%-73%
Adequate knowledge	15-20	>=74%

PART 3: STRUCTURED TEACHING PROGRAM ON DIGITAL DETOX AMONG B.SC NURSING STUDENTS OF SELECTED COLLEGES OF SOUTH GUJARAT:

Structured teaching program on Digital Detox consists of definition of Digital Detox, signs of digital overuse on health and academics, benefits of Digital Detox, Strategies and plan to reduce digital overload.

RESULTS

Table :1 Frequency & Percentage distribution of demographic characteristics of the sample
N=60

Sr. No	CHARACTERISTICS	FREQUENCY	PERCENTAGE%
1	AGE		
	(A)18 yrs- 20yrs	0	0
	(B)20 yrs -22yrs	60	100
	(C)22yrs-24yrs	0	0
	(D)>24yrs	0	0
2	GENDER		0
	(A) Male	8	13
	(B) Female	52	87
3	RESIDENCE		0
	(A)Home	51	85
	(B)PG	3	5
	(C)Hostel	6	10
	(D) others	0	0
4	YEAR OF STUDY		0
	(A)First year B.Sc. Nursing	56	93
	(B)Second year B.Sc. Nursing	4	7
	(C)Third year B.Sc. Nursing	0	0
5	EDUCATION OF FATHER		0
	(A)No formal education	12	20
	(B)Primary education	15	25
	(C)Secondary education	18	30
	(D)Graduation	15	25
	(E)Post- Graduation	0	0
6	EDUCATION OF MOTHER		
	(A)No formal education	43	72
	(B)Primary education	11	18
	(C)Secondary education	6	10
	(D)Graduation	0	0
	(E)Post- Graduation	0	0
7	SOCIO ECONOMIC STATUS		
	(A)Low	0	0
	(B)Medium	60	100

	(C)High	0	0
8	OWNERSHIP OF DIGITAL DEVICE		
	(A)Smartphone	51	85
	(B)Tablet	6	10
	(C)Laptop	3	5
	(D)Desktop computer	0	0
9	ACCESS TO INTERNET AT HOME ?		
	(A)Yes	60	100
	(B)No	0	0
10	HOW MANY HOURS YOU SPEND ON SCREEN DALIY?		
	A) <1 Hours	7	12
	(B) 1-2 Hours	5	8
	(C) 3-4 Hours	48	80
	(D) 5-6 Hours	0	0
	(E)>6 Hours	0	0
11	SOURCE OF INFORMATION REGARDING DIGITAL DETOX		
	(A) Yes	58	97
	(B) No	2	3
12	IF YES, THEN SPECIFY		
	(A) Mass media	0	0
	(B) Social media	54	90
	(C) Journals	0	0
	(D) Newspapers	6	10

TABLE -2: DESCRIPTION OF THE LEVEL KNOWLEDGE REGARDING DIGITAL DETOX
N=60

GRADING	%	PRE-TEST		POST-TEST	
		FREQUENCY	%	FREQUENCY	%
Inadequate knowledge	<50	4	7	0	0
Moderate knowledge	50-74	32	53	0	0
Adequate knowledge	>=75	24	40	60	100

The table 2 show that the level of knowledge digital detox among samples in the pretest majority 32(50%) moderate knowledge and 24(240%) had adequate knowledge and least 4 (7%) inadequate knowledge. In the post test majority of all 60 (100%) samples had adequate knowledge.

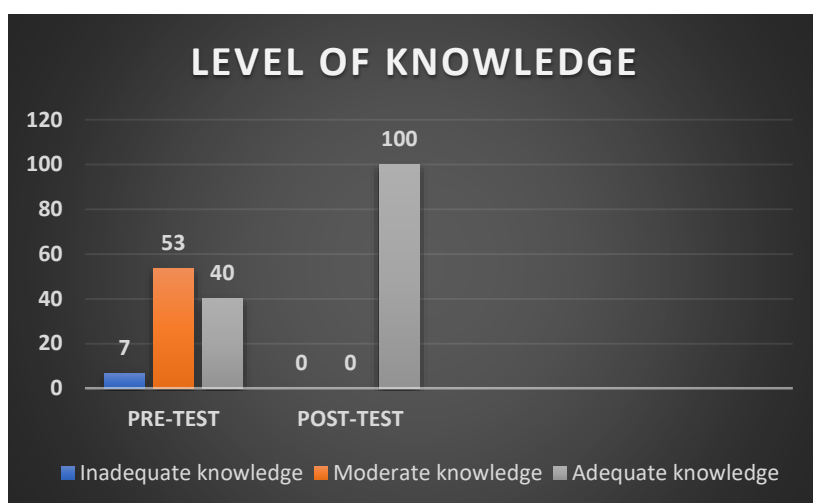


Figure-1: Bar diagram showing percentage distribution of students level of knowledge regarding Digital Detox

TABLE 3: SIGNIFICANCE DIFFERENCE BETWEEN PRE AND POST TEST KNOWLEDGE REGARDING DIGITAL DETOX

N=60

	MEAN	MEAN DIFFERENCE	SD	t value	TABLE VALUE	P VALUE	SIGNIFICANCE
PRE-TEST	12.63	5.17	3.75	10.34	2	<0.05	S*
POST-TEST	17.8		0.97				

NOTE: S*- Indicates highly significance.

Table 3 shows that the mean gain in knowledge was 5.17 Gain in pre-test knowledge with mean and SD 12.63 ± 3.75 and gain in post-test knowledge with mean and SD 17.8 ± 0.97 . The “t” value was highly significant ($t=10.34$ at $p<0.05$) level indicating the structured teaching programme regarding digital detox was very effective. Hence hypothesis H1 is accepted. So, There is a significant difference between the level of knowledge regarding Digital Detox among B.Sc. nursing students at the 0.05 level of significance.

TABLE 4: ASSOCIATION BETWEEN PRE-TEST KNOWLEDGE SCORE OF STUDENTS AND SELECTED DEMOGRAPHIC VARIABLES

N=60

SR. NO	CHARACTERISTICS	FREQUENCY	LEVEL OF KNOWLEDGE		D F	CHI SQUARE	TABLE VALUE	SIGNIFICANT VALUE (P<0.05)
			<MEDIAN	>= MEDIAN				
1	Age							
	(A)18 yrs- 20yrs	0	0	0	1	0		NS

	(B)20 yrs -22yrs	60	33	27			3.84	
	(C)22yrs-24yrs	0	0	0			1	
	(D)>24yrs	0	0	0				
2	Gender							
	(A) Male	8	3	5	1	1.142	3.84	NS
	(B) Female	52	30	22			1	
3	Residence							
	(A)Home	51	28	23	3	0.899	7.81	NS
	(B)PG	3	1	2				
	(C)Hostel	6	4	2				
	(D) others	0	0	0				
4	Year of study							
	(A)First year B.Sc. Nursing	56	31	25	1	0.043	3.84	NS
	(B) Second year B.Sc. Nursing	4	2	2				
	(C)Third year B.Sc. Nursing	0	0	0				
5	Education of father							
	(A)No formal education	12	7	5	4	1.481	9.48	NS
	(B)Primary education	15	10	5				
	(C)Secondary education	18	9	9				
	(D)Graduation	15	7	8				
	(E)Post- Graduation	0	0	0				
6	Education of mother							
	(A)No formal education	43	21	22	4	2.386	9.48	NS
	(B)Primary education	11	8	3				
	(C)Secondary education	6	4	2				
	(D)Graduation	0	0	0				
	(E)Post- Graduation	0	0	0				
7	Socio-economic status							
	(A)Low	0	0	0	2	0	5.99	NS
	(B)Medium	60	33	27				
	(C)High	0	0	0				
8	Ownership of digital device							
	(A)Smartphone	51	29	22	3	0.701	7.81	NS
	(B)Tablet	6	3	3				
	(C)Laptop	3	1	2				
	(D)Desktop computer	0	0	0				
9	Access to the internet at home ?							
	(A)Yes	60	33	27	1	0	3.84	NS
	(B)No	0	0	0				
10	How many hours you spend on screen daily?							

	A) <1 Hours	7	4	3	2	1.44	5.99	NS
	(B) 1-2 Hours	5	4	1				
	(C) 3-4 Hours	48	25	23				
	(D) 5-6 Hours	0	0	0				
	(E) >6 Hours	0	0	0				
11	Source of information regarding digital detox							
	(A) Yes	58	32	26	1	0.028	3.84	NS
	(B) No	2	1	1				
12	If yes, then specify							
	(A) Mass media	0	0	0	3	0.067	7.81	NS
	(B) Social media	54	30	24				
	(C) Journals	0	0	0				
	(D) Newspapers	6	3	3				

Table 4 shows that the obtained chi-square value for age (0), gender (1.142), residence (0.89), year of study(0.043), education of father(1.48), education of mother(2.38) socio economic status(0), ownership of digital device(0.70), access to internet at home(0), how many hours you spend on screen daily(1.44), source of information regarding digital detox(0.028), if thane specify(0.067) were found less than the table value so there is no significant association between pretest knowledge regarding digital detox and demographic variables. Hence, H_{02} is accepted. So, there is no significant association between pre-test level of knowledge regarding Digital Detox with selected demographic variables among B.sc Nursing students at the 0.05 level of significance.

DISCUSSION

The present study showed that the Structured Teaching Programme (STP) was effective in improving knowledge regarding digital detox among B.Sc. Nursing students in selected colleges of South Gujarat. In the pre-test, most students had moderate to adequate knowledge, while after the intervention all participants achieved an adequate level of knowledge, indicating a clear improvement.

The mean post-test score was significantly higher than the pre-test score, and the paired t-test confirmed that this gain was statistically significant. No significant association was found between pre-test knowledge and selected demographic variables, suggesting that the STP was beneficial across all groups. Overall, the findings highlight the value of structured educational programmes in promoting awareness of healthy digital habits and supporting the well-being and academic performance of nursing students.

CONCLUSION

The study concluded that the Structured Teaching Programme was effective in improving knowledge regarding digital detox among B.Sc. Nursing students. The significant increase in post-test scores showed that such educational interventions can promote awareness of healthy digital habits. Since no association was found between pre-test knowledge and demographic variables, digital detox education appears beneficial for all students. Therefore, including digital well-being education in the nursing curriculum may help improve responsible technology use, academic performance, and overall health.

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