



“A STUDY TO ASSESS THE IMPACT OF MOBILE PHONE USAGE ON SLEEP QUALITY AMONG STUDENT NURSES IN SELECTED INSTITUTE OF NURSING IN DELHI.”

Nursing

Ms. Shivani Jaswal Nursing Tutor, Apollo School of Nursing, Indraprastha Apollo Hospital, New Delhi-76

Ms. Rohini Sharma Vice Principal, Apollo School of Nursing, Indraprastha Apollo Hospital, New Delhi-76

ABSTRACT

Sleep is one of the fundamental requirements to meet the biological, psychological, social, and cultural needs of a person. Sleep is directly related with health and the quality of life. It has been noted in many recent studies that widespread use of cell phones has played an important role in the emergence of sleep related problems in adolescent. Cell phones, which are the product of developing technology, have become an important part of our everyday lives, it would be an interesting point to explore. So, in this concern a quantitative and descriptive research was conducted with aim to assess the impact of mobile phone usage on the sleep quality among student nurses, Sample selected was 123 GNM nursing student from 1st year, 2nd year and 3rd year using convenient sampling technique. Structured questionnaire was developed to collect data and it was shared with the students in form of google form through a link. The study findings were revealed in terms of the objective for the study that the majority of the population (60.9%) belongs to the age group of 18-20, Nearly half of the student nurses (51, 41.4%) have their mobile phone with them only for limited hours, The study also revealed that the mobile phone usage has no impact on sleep quality of student nurses.

KEYWORDS

Impact, Mobile Phone Usage, Sleep Quality, Student Nurses, Institute of nursing

I. INTRODUCTION

“The most important impact on society and the world is the cell phone. Cell phones have actually been one of the primary drivers in productivity improvements.”

FABRICE GRINDA

Sleep is one of the fundamental requirements to meet the biological, psychological, social, and cultural needs of a person. Sleep is an important part of healthy life, and it is directly related with health and quality of life. Regular sleep duration and sleep quality enhance the physical and emotional well-being of the individual. Studies have revealed that insufficient and poor-quality sleep affects cognitive functions, general health condition and well-being negatively. In adolescence, daily sleep requirement is between 8.5 and 9.3 hours, while it is higher in adults.

During adolescence, when physical growth accelerates, sleep is the fundamental factor in improving physical and academic performance. Despite the increasing need for sleep, daily sleep duration decreases due to the factors specific to this period, which brings problems with it. Sleeping late at night and getting up late are sleep characteristics of this period.

It has been noted in many recent studies that widespread use of cell phones has played an important role in the emergence of sleep related problems in adolescent. Cell phones, which are the product of developing technology, have become a part of our everyday lives. The use of cell phones has gradually increased among student nurses as they facilitate communication; they are portable, and they offer the opportunity to use the Internet and take photos.

The objectives of the study were to assess the impact of mobile phone usage on sleep quality among student nurses.

II. MATERIAL AND METHODS

The study was conducted in June 2023. The research approach and design were quantitative and descriptive. The population was the GNM nursing students out of which 123 student nurses were selected from 1st year, 2nd year and 3rd year using convenient sampling. A structured questionnaire was used to assess the impact of mobile phone usage on sleep quality among nursing students. The structured questionnaire was comprised of 40 items.

Structured questionnaire was shared with the students in form of google form through a link in their WhatsApp. Permission from the Principal and ethical clearance from Organizational Review Board was taken before starting the study. Before the questionnaire was given to the participants, consent was taken, aims and objectives were explained to them.

III. RESULT

The data was analyzed by using descriptive in term of frequencies, percentage, mean, median and ANOVA.

Table 1: Frequency and Percentage Distribution of Demographic Profile of Student Nurses (n = 123)

S no.	ITEMS	FREQUENCY	PERCENTAGE
1.	Year of study		
a.	1st Year	49	39.8
b.	2nd Year	38	30.8
c.	3rd Year	36	29.2
2.	Age (in year)		
a.	18-20	75	60.9
b.	21-23	47	38.2
c.	23-26	1	0.8
3.	Any illness		
a.	Acute	6	4.8
b.	Chronic	1	0.8
c.	No	116	94.3
4.	Acute illness since last 1 month		
a.	Yes	6	4.8
b.	No	117	95.1
5.	Any chronic illness		
a.	Yes	4	3.2
b.	No	119	96.7
6.	On any medication		
a.	Yes	8	6.5
b.	No	115	93.4
7.	Always have mobile phone with you		
a.	Yes, when I go to bed	38	30.8
b.	Only when I go to bed	2	1.6
c.	Most of the time	32	26
d.	Only for limited hours	51	41.1
8.	Most useable social media		
a.	Instagram	55	44.7
b.	WhatsApp	56	45.6
c.	None	4	26
d.	Any other	8	41.1
9.	Time used to take on mobile phone		
a.	Less than 30 minutes	48	39
b.	31 to 60 minutes	48	39
c.	61 to 120 minutes	18	14.6
d.	More than 120 minutes	9	7.3
10.	Often change your mobile phone		
a.	6 months to 1 year	6	4.8

b.	1 to 2 years	25	20.3
c.	More than 2 years	26	21.1
d.	More than 3 years	66	53.6
11.	Mobile phone allowed in nursing school		
a.	Yes	99	80.4
b.	No	24	19.5

Table 1 reveals that most of the nursing students were of the age 18-21 (77.78%). Most GNM I year and GNM II-year student nurses had equal number of population (36.29%) whereas GNM III-year students were comparatively less in number (24.40%). Majority of the student nurses are 12th pass out (92.59%). Few of the students have attained their higher secondary education in English medium (62. 22%). Among the different streams most of them are from humanities (47.40%), science with bio (18.52%), commerce (20.74%) and others (13.33%). Most of them have English as their mode of education in higher secondary class (76.29%). Microsoft team is the mostly used educational technology by the nursing students (58.51%). Mobile has been used mostly to attend online classes (78.51%). Combination of both WIFI and Cellular data connection has been used by few of them to attend online classes (42.2%), whereas some of them have either used only WIFI (17.1%) or Cellular data (40.7%).

Table 2: To assess the Mobile Phone Usage among Student Nurses (n = 123)

MOBILE PHONE USAGE	SCORE (%)	FREQUENCY	PERCENTAGE
Less Usage	<10 (<33%)	9	7.31
Moderate Usage	11-20 (33-66%)	109	88.61
High Usage	>20 (>66-100%)	5	4.06

Table 2 shows that majority of the student nurses have moderate mobile phone usage (109, 88.61%), followed by less usage (9, 7.31%) and high usage (5, 4.06%).

Table 3: To assess the quality of sleep quality among student nurses (n = 123)

SCORING CRITERIA	SCORE (%)	FREQUENCY	PERCENTAGE
Poor Sleep	3-11 (<25%)	45	36.58
Average Sleep	12-21 (26-50%)	65	52.84
Good Sleep	22-30 (51-75%)	13	10.56
Extreme Good Sleep	31-39 (>76-100%)	0	0

Table-3 Data represented in table 3 that majority of student nurses have average sleep quality (65, 52.84%), followed by poor sleep (45, 36.58%), good sleep by (13, 10.56%) and no one was having extremely good sleep.

Table 4: To assess the impact of mobile phone usage on sleep quality among student nurses. (n = 123)

Square of Variance	df	Sum of squares	Mean of sum of squares	F-ratio
3-1	2	88.47	44.23	1.89 ^{NS}
123-3	120	2795.16	23.29	
123-1	122			

NS=Not Significant (p<0.05)

Table 4 depicts that the computed F- value (1.89) is less than the tabled F- value (3.0718) at df= 2/120. Based on the ANOVA test findings, the mean score of Sleep Quality was found statistically non- significant. Hence, it can be concluded that the mobile phone usage has no impact on sleep quality of student nurses.

Table 5: To determine the association of mobile phone usage among student nurses with selected socio demographic variables like year of study, age etc. (n = 123)

DEMOGRAPHIC C PROFILE	ABOVE MEDIAN	BELOW MEDIAN	χ^2 Calculated	χ^2 Tabular	df
1. AGE IN YEAR					
18 -20 years	34	41	921.56	5.99*	2
21-23 years	20	27			
23-26 years	1	0			
2. BATCH (YEAR OF STUDY)					

First Year	26	23	10.1	5.99*	2
Second Year	13	28			
Third Year	16	20			
3. ALWAYS HAVE MOBILE PHONE WITH YOU					
Yes, even when I go to bed	19	19	417.824	7.82*	3
Only when I go out	0	2			
Most of the time but I don't sleep with it	22	29			
Only for limited hours	14	18			
4. MOST USEFUL SOCIAL MEDIA					
Facebook	0	0	242.90	9.49*	4
Instagram	32	21			
WhatsApp	19	37			
None	0	4			
Any other	4	6			
5. TIME USED TO TAKE TALK ON MOBILE PHONE					
Less than 30 minutes	22	27	75.59	7.82*	3
31-60 minutes	18	30			
61-120 minutes	11	7			
More than 120 minutes	4	5			

Table 5 shows that the tabled χ^2 value (df=2, 2, 3, 4 and 3 at p < 0.05) of age, batch, mobile phone, social media and talking on phone respectively are found statistically significant. Hence, it can be concluded that age, batch, mobile phone, social media, talking on phone had an influence on mobile phone usage among student nurses.

III DISCUSSION

The present study was aimed to assess the impact of “Mobile Phone Usage on Sleep Quality Among Student Nurses”

The findings of the present study were in disagreement with the similar study conducted by “Maneesha Godbole” (2020) Madhya Pradesh in August among 200 student nurses. This study was conducted to assess the smartphone usage and its impact on sleep quality among student nurses. This study shows that Smartphone addiction was associated with poor sleep quality. This is one of the few studies conducted among student nurses relating to smart phone addiction and sleep quality, while in our study found that 88% of student nurses were moderate users of smartphone and 7.35% were low users. In a study conducted among student nurses 5.06 % were low users and the mean score was 5.66 and, in our study, it was 15.23. For sleep difficulties, most of the participants (68%) in our study had sleep difficulties with a mean PSQI score of 6±3. The study also revealed that the extent of sleep difficulties among our participants seems to be higher.

IV CONCLUSION

Based on the results of the study found that majority of student nurses have average sleep quality and has no impact of mobile phone usage on sleep quality. It also revealed the significant association between the mobile phone usage among student nurses with their age, batch, mobile phone, social media and talking on mobile phone.

REFERENCES

- https://ijip.in/wp-content/uploads/2020/11/18.01.067.20200804.pdf
- https://journals.lww.com/ijmr/Fulltext/2022/03000/A_study_on_the_effect_of_mobile_phone_use_on_sleep.9.aspx?WT.mc.id=HPxADx20100319xMP
- https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7320888/
- https://in.docworkspace.com/d/sIEf-zK-4AcH-JsG?sa=00&st=0t
- https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6618184/
- http://www.internationaljournalofsciences.org/