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Research Article

A Descriptive Study to Assess the Level of Smartphone Addiction and Quality of Sleep among Student Nurses in Selected College of Nursing, New Delhi

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A B S T R A C T

University students check their smartphone 150 times in a day on an average. The reasons for checking their smartphones include anxiety and fear of missing out on information. And only 26 percent of the respondents use their smartphones for calling. Now-a-days, smartphone is quite essential for many professions like medicine, nursing, etc. but the excessive use of this technology causes individual to become addicted and affect their health. Considering the steep surge in usage of smartphones and internet access, a descriptive study was conducted to assess the level of smartphone addiction and quality of sleep among student nurses in a selected College of Nursing, New Delhi. The research approach adopted for the study was quantitative with descriptive research design. The tools used for data collection were Short Version of Smartphone Addiction Scale (SAS-SV) to assess the smartphone addiction level among student nurses and Pittsburgh's Sleep Quality Scale used to assess the sleep quality of student nurses. The sample comprised of students' nurses of B.Sc. (H) Nursing and DGNM 1st year of Rufaida College of Nursing, Jamia Hamdard, Delhi. The data was analyzed using descriptive statistics. The study revealed that none of the students (0%) were addicted to smartphone and 54.09% of the student nurses were having good sleep quality.

Keywords: Addiction, Smart Phone, Sleep Quality, Student Nurses

Introduction

University students check their smartphone 150 times in a day on an average. The reasons for checking their smartphones include anxiety and fear of missing out on information. And only 26 percent of the respondents use their smartphones for calling.[1]

Addiction is considered by WHO (WHO Expert Committee - 1964) as dependence, the continuous use of something for the sake of relief, comfort, or stimulation, which often causes cravings when it is absent.[2] The two major categories of addiction involve either substance addiction, e.g. "drugs or alcohol addiction" or "behavioral addiction such as mobile phone addiction".[3]

A smartphone is a term for distinguishing mobile phones with advanced features from basic feature phones. The term "Smartphone" first appeared in 1997, when Ericsson described its GS 88 "Penelope" concept as a smartphone.[4-7] This term was basically introduced in the market for a new class of mobile phones that provides integrated services from communication, computing and mobile sectors such as voice communication, messaging, personal information management applications and wireless communication capability.[8]

There is a considerable debate on addiction and abuse of Smartphone among adolescents and its consequent impact on their health; not only in a global context, but also specifically in the Indian population; considering that Smartphones globally occupy more than 50% of mobile phones market and more precise quantification of the associated problems is important to facilitate understanding in this field.[8]

Addiction behaviors are more common among young people than adults since adolescents have weaker self-control mechanisms. In addition, addiction behavior of adults is formed during adolescence.[9] Mostly the teenagers are the victims of smartphone addiction and are suffering from social isolation and their sleep patterns are also disturbed. They suggest if a person feels an overwhelming need of mobile phone usage more than daily half an hour, he/she is an addict and according to Yang, many mobile phone users are suffering from 'mobile phone dependence syndrome'.[10] As the usage of smartphones in increasing exponentially and it has proven ill effects on health of individuals, therefore the researchers chose this study.

Materials and Methods

The purpose of the present study was to assess the smartphone addiction level and sleep quality among student nurses of Rufaida College of Nursing, Jamia Hamdard, New Delhi. A descriptive study was conducted during the academic year 2017-2018, among students of B.Sc. (H) Nursing, 1st year and DGNM 1st year. A formal administrative approval was obtained from the concerned authority to conduct the study. Anonimity and confidentiality was maintained while conducting the study. Inclusion criteria comprised of students who were willing to participate in the study, those who could understand English and those who were available at the time of the study. Purposive sampling technique was used to select a sample of 61 student nurses enrolled at Rufaida College of Nursing, Jamia Hamdard.

The tools used for data collection were a questionnaire to assess the Smartphone Addiction Scale (SV-SAS) and a Pittsburgh Sleep Quality Scale to assess the sleeping pattern of the student nurses. In this study, risk of smartphone addiction was assessed by using Short Version of Smartphone Addiction Scale (SAS-SV). SAS-SV developed by Kwon M et al.[10] The Pittsburgh Sleep Quality Index (PSQI) is a self-report questionnaire that assesses sleep quality over a 1-month time interval.[11] The measure consists of 19 individual items, creating 7 components that produce one global score and takes 5-10 minutes to complete.[11] The validity of tool was established by giving the tool to seven experts from the field of nursing and medicine and the tool was found to be valid.

The data was collected after obtaining written consent from the student nurses. The data was analyzed using descriptive statistics. The demographic characteristics were assessed using frequencies and percentage, the smartphone addiction and sleep quality was assessed using percentage and then classified as addict or non-addict and good or poor respectively.

It has been reported that smart phone use adversely affects learning in the classroom, endangers driving safety and negatively affects work performance.[12]

Result

Analysis and interpretation of data was based on the data collected by using structured questionnaire and standardized tool to assess the smartphone addiction level and quality of sleep among student nurses. The results of the present study are presented under the following sections:

- Analysis of Demographic Data of the Student Nurses
- Analysis of the Smart Phone Addiction Level
- Analysis of Sleep Quality Scale based on Pittsburgh Sleep Quality Index

Analysis of Demographic Data of the Student Nurses

This section describes demographic data of sixty-one student nurses in terms of age, gender, educational qualification, when got the first smartphone, most visited website, time spent on internet, time spent on call, most use application, among student nurses is presented in the form of frequency and percentage distribution of sample subjects are shown in table 1.

Table 1.Frequency and percentage distribution of subject in terms of demographic data

(n=61)

S. No.	Variable	Frequency (f)	Percentage (%)
1.	**Age (in years)**		
	17-19	35	57.37
	20-22	25	40.98
	23-25	01	1.63
2.	**Gender**		
	Male	20	32.78

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	Female	41	67.21
3.	**Educational qualification**		
	B.Sc. (H) Nursing	29	47.54
	DGNM	32	52.45
4.	**Owned 1st smart phone**		
	Before high school	7	11.47
	High school	14	22.95
	Intermediate	21	34.42
	Graduation	19	31.14
5.	**Most visited website**		
	Google	50	81.96
	Yahoo	0	0
	Shopping site	01	1.63
	Educational site	01	1.63
	Any other	09	14.75
6.	**Time spent on internet**		
	< 1 hour	11	18.03
	1-2 hour	23	37.70
	2-4 hour	13	21.31
	>4 hour	14	22.95
7.	**Time spent on call/on message**		
	<1 Hour	36	59.01
	1-2 hour	12	19.67
	2-4 hour	05	8.19
	>4 hour	08	13.11
8.	**Most used application**		
	Educational app	09	14.75
	Gaming	08	13.11
	Entertainment	31	50.81
	Any other	13	21.31

Analysis of the Smart Phone Addiction Level

Table 2.Frequency and percentage distribution of student nurses towards smartphone addiction based on Short Version-Smart Phone Addiction Scale (SV-SAS)

(n=61)

S. No.	Addiction scale	Frequency	Percentage (%)
1.	Smartphone addict	0	0
2.	Not addict	61	100

Table 2, illustrates that student nurses were not addicted to smart phone as assessed by the smart phone addiction scale.

Analysis of Sleep Quality Scale based on Pittsburgh Sleep Quality Index

Table 3.Frequency and percentage distribution of the student nurses were based on Pittsburgh sleep quality scale

(n=61)

S. No.	Sleep quality	Frequency	Percentage (%)
1.	Good	33	54.09
2.	Poor	28	45.90

Table 3, illustrates that 33 (54.09%) student nurses were having good sleep quality and 28 (45.90%) were having poor sleep quality.

Discussion

Smartphone love has swept the world. Smartphone's technology is advancing at a rapid rate. However, the advancement of the technology is not an issue but what is alarming is people's misuse and excessive engagement with their devices.[12]

A cross sectional study on sample of 240 undergraduate medical students at KIMS Hubli was conducted. Students were assessed using a self-administered questionnaire, Smart Phone Addiction Scale and Pittsburgh Sleep Quality Inventory. SAS score and PSQI scores were co-related. Out of 240 subjects, 117 (48.75%) were poor sleepers and 123 (51.25%) were good sleepers according to PSQI global sleep score. This study concluded that in medical student's smartphone addiction affects a sleep quality significantly and males are particularly more at risk of having poor sleep quality due to excessive smartphone use.[13]

However, in the present study , it was found that student nurses were not addicted to smartphone as assessed by the smartphone addiction scale and 33(54.09%) student nurses were having good sleep quality and 28 (45.90%) were having poor sleep quality.

Conclusion

Indeed, smart phones are here to stay and the popularity is on rise, but limiting its usage so that it does not pose a threat to academic progress of a student is mandatory. Therefore, instead of considering treatment of a potential addiction it should be used judiciously and norms of socially acceptable usage should be set in, especially in areas of nursing clinical practice when the risk of endangering a life is considerably high and margin for mistake or error in very narrow.

Further researches can be undertaken to actually observe the usage of smart phones and its impact on academic outcomes and clinical outcomes.

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Conflict of Interest: None

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