

Assessing the Knowledge and Attitude of Nursing Students Regarding Health Hazards of Using Mobile Phones

Monica D'Souza¹; Kiran K², Mamata K³, Seema K⁴, Dynaneshwari L⁵, Shweta M⁶, Vishakha M⁷

Abstract

Mobile phones have weakened our social ability; without it, people find it hard to express themselves. Because of the quick development and widespread use of mobile phones, and their vast effect on communication and interactions in work and private life, it is important to study possible negative health effects of the exposure. This survey was undertaken to assess the knowledge and attitude of nursing students regarding health hazards of using mobile phones among 174 nursing students in Mumbai (Maharashtra). The study found that more than 70 percent of the participants had moderately adequate knowledge and moderately favourable attitude.

Life has undergone many revolutions for most of the world population. Today, a mobile phone isn't just a rich man's fashion accessory in India. Mobile phones have dominated our lives with the advanced technology and applications they offer. It can avoid awkward and silent moments because you do not have to talk to someone face to face anymore. Although it can help us in many different aspects, we are relying on it, and abuse it. It is being widely suggested that the younger generation, who are the most frequent cell phone users, need to be aware about the adverse health effects of cell phone usage especially the mental aspects and take preventive measures to minimise and control the same.

Thus, a survey was carried out to assess the knowledge and attitude of nursing students regarding health hazards of using mobile phones since today's nursing students shall be the backbone of the healthcare system tomorrow.

Objectives

- ♦ To assess the (a) knowledge and (b) attitude regarding health hazards of using mobile phone among nursing student.
- ♦ To correlate nursing students' knowledge with the attitude regarding health hazards of using mobile phone among nursing student.

Conceptual framework: Iceberg Phenomenon was used

The authors are: 1. Senior Sister Tutor, and 2-7. RGNM Internship students, 2011-15 batch, at KJ Somaiya School of Nursing, Sion (E), Mumbai.

for this study.

Review of Literature

In a cohort study conducted in 2011, Patrizia F et al concluded that there were no increased risks of tumours of the central nervous system, providing little evidence for a causal association.

Agarwal et al. in 2008 found that cell phone use decreased semen quality in 361 men by reducing sperm count, motility, viability, and normal morphology, and that the decrease in sperm parameters was dependent on the duration of daily exposure to cell phones and independent of the initial semen quality.

Tessa J in 2014 conducted field observations to examine Elon students' behaviour while walking around campus, along with an online survey. Findings suggest that students seem to be addicted to their cell phones, with 64 percent of students observed on campus interacting with their device one way or another. About 77 percent of students surveyed said they felt disconnected when not using their cell phones. Nevertheless, a survey of students found that they believe that the self-gratification achieved through excessive cell phone use has negative psychological effects on them.

A study conducted by Jayanti P et al in 2013 found out that among 441 respondents, 52 percent had frequent attacks of headache, 50.8 percent admitted that they got irritated or angry over things told to them on the cell or by the end of the day by which time they had used their cell for prolonged

duration, 47.4 percent students responded positively when queried on lack of concentration; 38.5 percent said that they got anxious while using the phone because certain information or messages communicated to them at odd times caused apprehension. Lack of academic performance was attributed to increase in cell phone habit, by 34.7 percent; 24.7 percent of the respondents said that hearing some sad news, differences with close friends or siblings/parents, not responding to their calls/texts, etc. made them sad and gloomy which they attributed to cell phones; 23.8 percent said that they were more forgetful than they were before or had frequent memory lapses due to dependency on various features in cell phones which stored information.

According to a survey conducted in Ohio by Jack N et al, more than 1,500 pedestrians were esti-

mated to be treated in emergency rooms in 2010 for injuries related to using a cell phone while walking, according to a new nationwide study. The number of such injuries has more than doubled since 2005, even though the total number of pedestrian injuries dropped during that time.

Methodology

A descriptive exploratory approach was used for this study. The sample consisted of 229 students who were studying in KJ Somaiya School and College of Nursing and were present on the data collection day. A non-probability convenient sampling technique was used as it was considered that all student nurses should be assessed due to their convenient accessibility and proximity to the researcher as almost the whole group was using mobile phones. Written approval was taken from the concerned Principal of the Nursing Institute.

Setting: The present study was conducted in KJ Somaiya School and College of Nursing, Sion [East], Mumbai (Maharashtra).

Tools and technique: The use of a questionnaire was considered to be the most rapid and cost effective method for gathering data from large number of nursing students. The questionnaire was divided into three parts: *Part 1* consisted of a structured questionnaire to assess the demographic variables (age, class, number of mobiles, total mobile phone usage in 24 hrs, internet usage, reason for purchasing mobile, place where mobile is kept most of the time) (Table 1). *Part 2* consisted of a self-reporting technique using a structured questionnaire to assess the knowledge.

Part 3 consisted of a 5-point Likert scale to assess the attitude level of the nursing students were used for data collection.

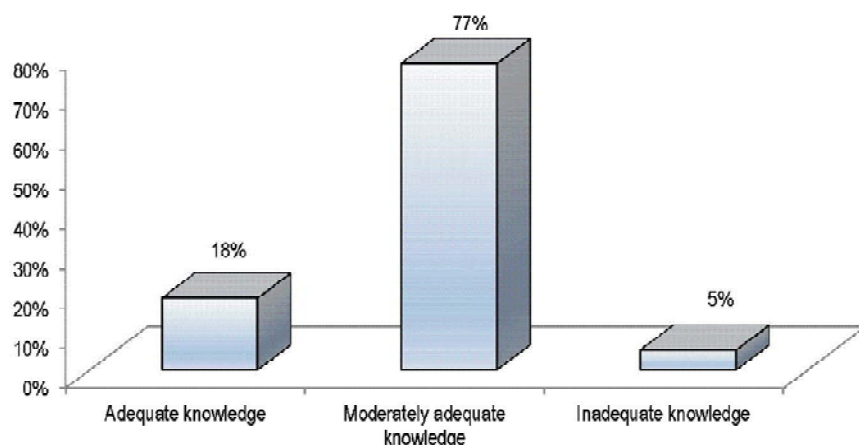
Reliability: The reliability of the structured questionnaire and the 5-point Likert scale was assessed by using Test Retest method; 24 respondents were taken for the reliability testing. Reliability was assessed using Pearson Product Movement formula. The value of "r" obtained was 0.89 for structured questionnaire and 0.76 for 5-point Likert scale which showed that the tools are statistically reliable. The samples for reliability testing were not included in the main study.

Data collection procedure: The data collection period lasted for almost 12 days. The

Table 1: Distribution of the samples with regard to their demographic data

S.No.	Item	Frequency	Percentage
1	Age in years		
	Below 18	9	5
	18 to 20	125	72
	21 to 23	31	18
2	Class		
	First year RGNM	37	20
	Second year RGNM	37	20
	Third year RGNM	32	17
	First year BSc Nursing	31	17
	Second year BSc Nursing	20	11
	Third year BSc Nursing	21	11
3	Number of mobiles		
	One mobile	127	73
	Two mobiles	7	4
	One mobile with dual SIM	40	23
4	Total mobile phone usage in 24 hrs		
	1 hr - 6 hrs	130	75
	7 hrs - 12 hrs	30	17
	13 hrs - 18 hrs	6	3
5	Internet usage		
	Yes	122	70
6	Reason for purchasing mobile		
	• Gives you convenience of calling anyone anytime	107	32
	• It makes you easily accessible (to other people)	77	23
	• It is easy to communicate with friends	88	27
	• No landline number, so preferred a mobile	41	13
	• Any other	17	5
7	Place where mobile is kept most of the time		
	• In the hand	15	9
	• Hand bag	82	47
	• Locker	3	2
	• Pant pocket	68	39
	• Room	6	3

Fig 1: Percentage distribution of the knowledge scores of the nursing students regarding health hazards of using mobile phones



investigator administered the structured questionnaire and 5-point Likert scale for the purpose of data collection. It took 15-20 minutes for each student to answer the tools. The data collected was organised and analysed using descriptive and inferential statistics.

Results

Findings related to demographic data: Of the total 185 respondents surveyed, 11 did not use a mobile phone, these were not included in the main study and hence, the total respondents who participated in the study was 174 (Table 1). Majority of the respondents (73%) were using one mobile. It was observed that 23 percent respondents were using one mobile with dual SIM. Majority of the students were in the age group of 18-20 years i.e. 72 percent while 18 percent were in the age group of 21-23 years. It was noted that 75 percent of the respondents used their mobile for almost 1-6 hours in the whole day while 17 percent used for 7-12 hours. Also, 3 percent respondents used their mobile for almost 13-

18 hours and 5 percent respondents were using the mobile phone for 19-24 hours. 70 percent of the respondents were using internet on their mobile phone while remaining 30 percent of the respondents were not using internet on their mobile phones; 47 percent kept their mobile most of the time in their hand bag, while 39 percent respondents kept in their pant pockets.

Analysis of knowledge score: It was noted that 77 percent of the nursing students had moderately adequate knowledge regarding health hazards of using mo-

bile phones, 18 percent students had adequate knowledge and 5 percent had inadequate knowledge regarding the topic (Fig 1).

Analysis of the attitude score: None of the respondents had an unfavourable attitude regarding health hazards of using mobile phones. 74 percent of the respondents had a moderately favourable attitude whereas the remaining 26 percent respondents had a favourable attitude regarding health hazards of using mobile phones (Fig 2).

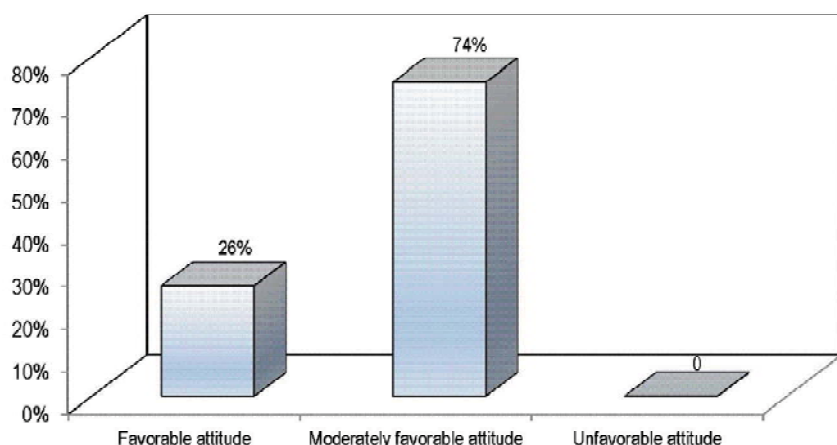
Correlation of the knowledge score with the attitude score: The calculated coefficient of correlation was 0.111 which denoted a positive correlation between knowledge and attitude.

Discussion

Majority of the students used internet on their mobile phones for purpose of social networking and only a few times for reviewing literature for study purpose. The mobile phones were constantly kept close to their body either in the pant pockets or hand bags maybe due to fear of theft or need to remain in constant communication with friends. Although maximum students had favourable and moderately favourable knowledge regarding health hazards of using mobile phones yet they were using them for more than 6 hours, and upto 12 hours per day.

Similarly, even though none of the students had unfavourable attitude towards using mobile phones yet they used them maybe because the need to be in constant social networking preceded their view rather than for physical and psychological safety from mobile phones. Similar observations have been made in other studies also.

Fig 2: Percentage distribution of the attitude scores of the nursing students regarding health hazards of using mobile phones



Implications

The findings of this study have implications in Nursing services, Nursing administration, Nursing education and Nursing research.

Nursing services: Mental health promotion is a vital function of the nurse and nurses can prevent psychological factors leading to mental problems which are caused by using mobile phones.

Nursing administration: The nurse administrators can provide in-service education programme to the staff nurses so as to make them aware of the health hazards of using mobile phones.

Public health administrators can organise community outreach programme so that community health nurses can easily identify and curb incidences of mental illnesses arising due to mobile phones.

Nursing education: Nursing education should help in inculcating a sense of responsibility in the students to identify needs and problems so as to render optimum care.

Nursing research: The present study may be used as a reference material.

Conclusion

The present study shows that nursing students have a moderately adequate knowledge and moderately favourable attitude. Since, a positive correlation between knowledge and attitude is proved, hence proper knowledge given regarding health hazards of using mobile phones will improve the attitude regarding the same.

References

1. Jayanti P, Indranil A, Divya W. A study on some psychological health effects of cell-phone usage amongst college going students. *International Journal of Medical Research & Health Sciences* 2013; 2(3): 388-94
2. Patrizia F, Aslak P, Christoffer J, Jørgen O, Marianne S, Joachim S. Use of mobile phones and risk of brain tumours: Update of Danish cohort study. *British Medical Journal* 2011; 19: 343
3. Tessa Jones. Students' cell phone addiction and their opinions. *The Elon Journal of Undergraduate Research in Communications*. Spring 2014; 5(1) 74-80
4. Agarwal A, Deepinder F, Sharma R, Ranga G, Li J. Effect of cell phone usage on semen analysis in men attending infertility clinic: An observational study; *Fertility Sterility* 2008; 89(1): 121-28
5. Thomee S, Dellve L, Harenstam A, Hagberg M. Perceived connections between information and communication technology use and mental symptoms among young adults - a qualitative study. *BioMed Central Public Health* 2010; 10(1): 66
6. Jack N, Derek T. Pedestrian Injuries due to mobile phone use in public places. *Accident Analysis and Prevention* 2013; 57: 91-95

ATTENTION MEMBERS !

Although we take utmost care in checking the veracity of facts mentioned in the advertisements, yet readers are requested to make appropriate enquiries and satisfy themselves before acting upon any advertisement.

- Chief Editor

Advice to the Contributors

It is observed that some articles/ write ups submitted for publication in Nursing Journal of India (NJI) do not conform to the required instructions so that such articles are not likely to receive priority.

Kindly note that each article/ write-up for publication in NJI must indicate: TNAI Membership number of the Author(s); contact details including Mobile / Landline Number; email id; complete address of institution of the corresponding Author (if working).

Research articles must contain Abstract. The References must be double checked for accuracy of author(s) name(s) and completeness. The name & designation of Guide/ Co-Guide with Institutional affiliation as well as year in which study was conducted must also be mentioned.

R.D. MEMORIAL COLLEGE OF NURSING

Barkhedi Kalan, Bhadbhada Road, Bhopal-462044 (MP)
ISO Certified – No. QM/1503RD/1057, 9001:2008 (QMS)
Recognized by Indian Nursing Council, New Delhi
M.P. State Govt. and affiliated to Barkatullah University, Bhopal (M.P.)

ADMISSION GUIDANCE

MSc Nursing - (MSN, CHN, OBG, PSY & Pediatrics Nursing) M/F with Post Basic BSc/BSc Nursing with minimum 1 year experience.

BSc Nursing - M/F with 10+2 (PCBE) 45%, SC/ST 40%, age not less than 17 years.

PB BSc Nursing - M/F with G.N.M. pass. No experience.

GNM - M/F with 10+2 pass 40% (Any Subject)

ANM - Only female with 10+2 pass (Any subject)

Application form Rs. 350/- by post, Rs. 400/- by D.D. in favour of **R. D. Memorial College of Nursing, Bhopal** (Govt. candidates to apply through proper channel).

Required:

Professor – 15+ years experience

Associate Professor – MSN, CHN, OBG, PSY

Assistant Professor – All Subjects

Tutor - All Specialties

Qualification and Experience as per Indian Nursing Council, New Delhi Norms. Salary as per UGC Norms.

Brig. (Retd.) Esther Daulat,
Principal

E-mail : rdmcnursing@gmail.com

Contact No.: 9425014220, 7697544133, 0755-2696635