The impact of advance mobile devices and computer skills on knowledge and practices among post RN nursing students

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ABSTRACT

Introduction: The objective of this study was to explore the impact of advance mobile devices and computer skills on knowledge and practices among Post RN Nursing students..

Material And Methods: A sample of 40 students of Post RN BSc Nursing was recruited for this study. A written questionnaire was given to the participants to collect data. Descriptive analysis was carried out with SPSS to analyze the relationship between the variables.

Results: The results showed that 75% students have internet facility, whereas only 25% don't have internet access. Despite of this problem still 12.5% of the participants were using their computers, internet and mobile devices to make the assignments. On the other hand, 87.5% students did never use computers and IT for their studies. 5% of the participants don't use computer for studies whereas, 22.5% of the participants were using computers for study purposes once in a week. On the other hand, the percentages of the participants who were using computer twice a week were 47.5%. Therefore, it is concluded that only 25% students were using computers for studies.

Conclusion: The Post RN Students were the future mentors, teachers, and supervisors for the new comers. So, they there is an impact of advance mobile devices and computer skills on knowledge and practices among Post RN Nursing.

Key Words: *Information technology; Computer skills; Nursing students; Mobile devices; Knowledge and practices*

INTRODUCTION

Nursing is a growing filed globally and it is undoubtedly the back bone of the health care settings. It is a fact that the nurses are the largest groups which are present in the health care teams globally. Public and private healthcare institutions in South Africa have incorporated IT in varying degrees from computerized medical equipment, automated systems for admissions and stock controls [1]. Nurses are the backbone of the health care delivery system. Indeed, their importance cannot be neglected. However, the use of information technology in the health care system have made it much difficult and challenging for the nurses. Thus, it is important for the nurses to use computers and information technology devices in the health care systems.

Nursing forms, a major component of the healthcare sector. The effective and efficient utilization of IT is dependent on nurses' knowledge, attitudes and facilitating conditions [2]. IT is a powerful and valuable tool to support learning [3].

MATERIAL AND METHODS

A descriptive study design (quantitative) was used in this study. The study was conducted in the Bahawalpur college of Nursing, Bahawalpur. A total of 40 students of post RN b.sc nursing were included in the study.

According to study, the target population is the entire population in which a researcher is interested. The accessible population is composed of cases from the target population that are accessible to the researcher as study participants. The target population in this study was the students of Post RN BSc Nursing of year I and year II.

A sample is the subunit of the population and a good sample is that which the good representative of the population is explained that Sampling is the process of selecting a portion of the population to represent the entire population. A sample is a subset of population elements. In nursing research, the elements (basic units) are usually humans. The sample in this study was taken by the simple random method. This technique is allowing the each person to have an equal chance to be a part of the study. A sample of 40 students was taken from the 110 of total population.

Inclusion criteria

- Students of Post RN BSc Nursing year I and II.
- Students working government hospitals.
- Students enrolled in college of nursing Bahawalpur.

Exclusion criteria

- Students of BSN, LHV, CAN and CMW.
- Doctors and Technologist.
- Nursing assistants.

Data collection

A written questionnaire was given to the participants to gather data from the nursing students. A questionnaire is a method of data collection that asks participants to give written or verbal replies to a written set of questions.

Data analysis

Descriptive analysis was carried out to observe the relationship between the variable on SPSS.

RESULTS

The results of study showed that 75% students have computers at their homes, whereas 25% don't have computers or laptop available with them at home or work place. In the same way the participants have explained that about 75% are having internet facility whereas only 25% don't have internet access **(Table 1)**.

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TABLE 1
Computer access for nurse's

	Frequency	Percent	Valid Percent	Cumulative Percent
Yes	30	75	0.75	75
NO	10	25	0.25	100
Total	40	100	100	-

Despite of the availability of computers and internet access still the 12.5% of the students were using their computers, internet and mobile devices to make the assignments **(Table 2)**.

TABLE 2
Internet access for nurse's

	Frequency	Percent	Valid Percent	Cumulative Percent
Yes	30	75	75	75
NO	10	25	25	100
Total	40	100	100	-

On the other hand, the remaining 87.5% don't use computers and IT for their studies and not on the clinical area. 5% of the participants don't use computer for studies whereas, 22.5% of the participants are using computers for study purposes once in a week. On the other hand, the percentages of the students who were using computer twice a week are 47.5%. 25% of the participants were using computers for studies more than the aforesaid time in the studies (Table 3).

TABLE 3
Computer use for assignment for nurse's

	Frequency	Percent	Valid Percent	Cumulative Percent
Yes	5	12.5	12.5	12.5
No	35	87.5	87.5	100
Total	40	100	100	-

Table 4 showed that approximately 25% of the students possess knowledge to use MS Office whereas, 75% don't know how to work on MS office. 75% students used to get help from their colleagues in the assignments and computer work. The remaining 25% students often get help in assignments **(Table 5)**.

TABLE 4
Knowledge of MS. Office for nurse's

	Frequency	Percent	Valid Percent	Cumulative Percent
Yes	10	25	25	25
No	30	75	75	100
Total	40	100	100	-

TABLE 5
Help from others in assignment

	Frequency	Percent	Valid Percent	Cumulative Percent
In every Assignment	30	75	75	75
Sometimes	10	25	25	100
Total	40	100	100	-

Table 6 showed the importance of the computer for nursing in studies and in the clinical area. 75% of the students know importance of computer. Technology is of great extent whereas the 25% think that its importance is not significant in nursing education and in clinical practices.

TABLE 6
Importance of computer for nurses

	Frequency	Percent	Valid Percent	Cumulative Percent
Great extent	30	75	75	75
Some extent	10	25	25	100
Total	40	100	100	-

DISCUSSION

It is highlighted that nursing students appreciated, accepted and adopted IT more readily in nursing education. Familiarity with IT in higher education

environments [4]. The use of the mobile devices in the health care settings and in class rooms helps the nursing students to get necessary information to record properly. Furthermore, the mobile devices (laptops, computers and tablets) helped to improve their efficacy by increasing their access to the medical and drug information. Similarly, the use of these computers helps in improving the patient's safety and quality of the care. In the same way the use of mobile devices helped the nursing students to take care of their patient at the bed side and they don't leave their patient alone to seek the information.

The results of the study have shown that the nurses have computers, mobiles and tablets with them along with internet facilities. However, they don't have command and knowledge of computers and utilization of the aforesaid devices helps in quality improvement and also with the improvement of the study levels. Students don't know how to use the computers and its programs for their study purposes and even in their practices. The majority of the participants regarded an advanced mobile device to be useful, giving access to necessary information and also being useful in making notes, planning their work and saving time. Furthermore, the advanced mobile device was regarded to improve patient safety and the quality of care and to increase confidence. In order to continuously improve the safety and quality of health care, advanced mobile devices adjusted for nursing practice should be further developed, implemented and evaluated in research.

IT literacy is essential for nurse practitioners to utilize high-technology medical devices [5]. The utilization of the online technologies is very helpful in higher education and the use of these technologies is increasing day by day. However, in spite of the importance, the nursing students don't have information and skills regarding the computers and information technology and same with the nursing staff; they are not taught about the computer and utilization of the computers and devices in health care setting and not even in the class rooms fort their studies. The nurses and nursing students are not able to use computers adequately. Although, they have a positive attitude towards the computers and its use in the studies and in the clinical area yet their skills and performance is less in this scenario.

Learning through electronic media provides stimulation, enhanced experience in traditional learning approaches [6]. The use of videos in educational landscapes has a significant impact on students' learning performance and satisfaction and is useful for revision and preparation for practice [7, 8]. Therefore, it is important and well known that the nurses should use the advanced mobile devices (tablets, mobiles, computers and laptops) in the studies and health care settings. Millennial and the Generation often prefer learning through smart devices and web-enabled technologies [9]. EHR improving patient care, productivity and job satisfaction [10]. Thus, they are using the internet facilities and technology more frequently. Thus, the use of technology will increase the attitude of the nurses towards the nursing productivity. So, it is important to teach them the computer studies and how to use the computers and computer skills.

LIMITATIONS OF THE STUDY

This study was conducted only in one college on Post RN BSc Nursing Students (year 1 and Year 2). Therefore, more studies on this problem are needed to be done in different colleges and universities to know the depth of the issue in Pakistan. Furthermore, the generalizability of the study can be questioned because it is performed in one college. Additionally, this is done in the college and did not performed in the clinically area.

CONCLUSION

Computers and advanced mobile devices and information technology are of utmost importance. Nursing students should learn the computer exposure, as the world is getting closer by the internet facilities, use of tablets, mobiles and laptops. The Post RN Students are actually the future mentors, teachers, and supervisors for the new comers. Therefore, they should learn these skills and knowledge to guide the new comers and colleagues.

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