ORIGINAL ARTICLE

The Knowledge among Nursing Students regarding Basic Life Support at A Private School of Nursing in Lahore, Pakistan.

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ABSTRACT

Aim: To assess the knowledge of nursing students regarding Basic Life Support (BLS) a Private School of Nursing in Lahore, Pakistan.
Study deign: Cross sectional study design was used in this study.
Place and duration of study: This study was conducted at one of the private School of Nursing in Lahore and during November, 2018 to April, 2019.
Methodology: A total of 60 student nurses of BSN, Post RN, and MSN programs participated in the study; all were practically involved in patient's care (under-supervision) at different tertiary level care hospitals of Punjab, Pakistan. All hospitals are responsible to keep their nurses' knowledge of BLS updated. This study has assessed knowledge of student nurses and has observed the difference in knowledge according to their qualification and experiences. Twenty five questions were used to assess participants' knowledge of BLS.
Results: The findings revealed that 32 (53.34%) student nurses were well aware of the BLS, 15 (25%) had moderate knowledge while 13 (21.67%) of respondents had inadequate knowledge. Interestingly, analysis showed that there was a clear difference in BLS knowledge and their level of qualification and experience.
Conclusion: Nursing students found to have satisfactory level of knowledge of basic life support, however, number of years of experience and qualification plays a significant role in its implication.
Key words: Knowledge, Basic Life Support, Student Nurses,

INTRODUCTION

Basic Life Support (BLS) includes identification and early management of signs of heart attack, Sudden Cardiac Arrest (SCA), stroke, and Foreign-Body Airway Obstruction (FBAO). The Health Care Providers (HCPs) are supposed to practice BLS as they constantly on frontline to save lives of people who undergo such life threatening conditions. Therefore, having adequate knowledge regarding BLS is important for HCP at healthcare facilities (Al-Shamiri, Al-Maweri, Shugaa-Addin, Alaizari, & Hunaish, 2017).

Many evidences suggest that the good survival rate can be maintained by early detection and management of critical life threating signs. Interventions for instance, giving quality Cardio-Pulmonary Resuscitation (CPR) and initiating defibrillation on time required proper competency of HCPs, specially nurses (Alotaibi, Alamri, Almufleh, & Alsougi, 2016). They are expected to be as trained to resuscitate the patients in case of emergency from their day one of posting. In developing countries like Pakistan, there is still an area of improvement to develop proper policies, standards and arrangements for the provision of BLS and up-gradation of it frequently. However, the research conducted by Cohen E. on employee training and development, it is indicated that nurses do not have enough knowledge and skill to perform the CPR (Cohen, 2017). Hence, there is a need to check and evaluate the level of knowledge they have and further educate them about the basic cardiac support (BLS) (Onan, Turan, Elcin, Erbil, & Bulut, 2019).

Over 40% of all disease burden is due to the cardio-vascular diseases, worldwide. According to the World Health Organization (WHO), almost 17.7 million people died due to the cardiovascular disease in last year representing all global deaths. It has been estimated that 7.4 million were due to coronary heart disease, and 6.7 million were due to stroke. All of these terrible situations make a serious concern about providing the basic life support (BSL) to the victim (Saraç, 2008).

Some healthcare providers are not usually prepared and meet guidelines recommended by standards of the American Heart Association (Ahmad et al., 2018; Cohen, 2017; Kim et al., 2017). Ahmad et al. conducted a study in which described that the timing of cardiopulmonary resuscitation is critical and of most importance as asphyxia triggers neuronal damage beyond two minutes of cardiac arrests. Cardiovascular diseases cause 30% of global mortality amounting to 17 million deaths every year. The previous few studies showed that ventricular fibrillation is the main cause of sudden cardiac death in 59–60% of the cases (Ahmad et al., 2018). Despite the development of cardiopulmonary resuscitation (CPR), electrical defibrillation, and other advanced resuscitative techniques over the past 50 years, survival rates remain low. The epidemiology and etiology of these problems are need to be discussed in greater detail through which a serious attention could be brought toward the need of BSL trainings programs(Ahmad et al., 2018; Castillo, Gallart, Rodríguez, Castillo, & Gomar, 2018).

There are many institutes offering post and under graduation degree programs for nurses. These programs also demand training for Basic Life Support with basic competencies which contains theoretical and practical component. In healthcare industry, nurses are considered its backbone because of their practical involvement in patient care and their BLS competency level should be monitored frequently to keep them updated for better patient outcome. The aim of the study, therefore, was to explore the knowledge of nurses regarding Basic life Support

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importance and its competence level among Post RN BSN, BScN, and MSN students.

MATERIAL AND METHODS

This study was conducted after the approval of the ethical committee of Private School of Nursing. The rules and regulations set by the Ethical Committee were followed throughout the study. The rights of the participants were respected. This study was proceeded from November, 2018 to April, 2019. Cross-sectional study design was used to study the knowledge of student nurses. Convenient sampling technique was used to recruit study participants. A total of 200 students were studying in different nursing programs from which only 66 nursing students were recruited as a sample. The sample size was determined by manual sample calculation formula (Solvin's formula). A questioner from previous study was used which was conducted in June14, 2018 by Onan et al., in 2019. The study tool consisted 25 multiple choice questions which were basically related to BLS knowledge. First part of assessment tool was related to participants' basic information regarding demographic data. The second part was related to the knowledge of basic life support among nursing students. The data were analyzed on SPSS version 21.0.

RESULTS

Table 1 shows that 30(50%) of participant were between age of 31-40 years whereas 05(8.34%) were above age 40. In the context of gender, 08(13.34%) participants were male whereas 52(86.67%) participants were female. In the education level, 20(33.34%) participants were in BSN/Post RN, 12(20%) were in BScN, and 28(46.67%) were in MSN program. In the context of job experience 20(33.34%) of respondents were having experience within 6-9 years while 14(23.34%) were having job experience > 9 years.

Table: 1 Demographic data

Characteristics	Number (n) frequency (%)
Age	
20-30 years	25 (41.67%)
31-40 years	30(50%)
>40 years	05(8.34%)
Gender	
Male	08(13.34%)
Female	52(86.67%)
Education Level	
BSN/Post RN	20(33.34%)
BScN	12(20%)
MSN	28 (46.67%)
Experience	
Within 1-3 years	12(20%)
Within 3-6 years	14(23.34%)
Within 6-9 years	20(33.34%)
>9 years	14(23.34%)

Table 2 Shows that out of 28 MSN students, 15(53.58%) had adequate level of knowledge, 10(35.72%) had moderate level of knowledge, whereas, 3(10.72%) students had inadequate knowledge regarding BLS. Similarly, out of 20 Post RN BSN students, 12 (60%) had adequate level of knowledge, 2(10%) had moderate level of knowledge, whereas, 6(30%) students had inadequate knowledge regarding BLS. In a similar way, out of 12 BSN students, 5 (41%) had adequate level of knowledge, 3(25%) had moderate level of knowledge, whereas, 4 (33.34%) students had inadequate knowledge regarding BLS. In the analysis of overall knowledge related to BLS, 32(53.34%) students showed adequate level and their mean qualification and knowledge according to education scores were 9.26± 3.891 and 11±4 .708, respectively. The p-value was 0.000 (<0.05).

Table: 2: Qualification and Knowledge according to education

Qualification	Knowledge		
	Adequate	Moderate	Inadequate
MSN	15(53.58%)	10(35.72%)	3 (10.72%)
PostRN BSN	12 (60%)	2 (10%)	6 (30%)
BScN	5 (41%)	3 (25%)	4 (33.34%)

Table 3 compares the level of knowledge with the experiences of students. Out of 12 students who had 1-3 years of experience, half of them 6(50%) had adequate level of knowledge, 4(33.34%) students had moderate level of knowledge, while 2(16.67%) students showed inadequate level of knowledge. Out of 14 students who had 3-6 years of experience, 9(64.3%) had adequate level of knowledge, 4(28.58%) students had moderate level of knowledge, while only 1(7.15%) student showed inadequate level of knowledge related to BLS. In a similar way, Out of 20 students who had 6-9 years of experience, 10(50%) had adequate level of knowledge, 4(20%) students had moderate level of knowledge, while 6(30%) students showed inadequate level of knowledge related to BLS. On the other hand, student who had more than 9 years of experience, showed similar pattern as 9(64.3%), 1 (7.15%), 4(28.58%) of them scored adequate, moderate and inadequate, respectively.

Table: 3: Knowledge according to experience

Experience	Knowledge		
	Adequate	Moderate	Inadequate
1-3 years	6 (50%)	4 (33.34%)	2 (16.67%)
3-6years	9(64.3%)	4 (28.58%)	1(7.15%)
6-9years	10(50%)	4 (20%)	6 (30%)
>9 years	9 (64.3%)	1 (7.15%)	4 (28.58%)

DISCUSSION

In the nursing profession, BLS is very unique and important skill that nurses supposed to develop because of their presence on bed side all the day and night. A nurse may be the first person who assess patient first in cardiovascular arrest. The findings of this study helped assessing the basic knowledge of nurses regarding the BLS. According to results of study, majority of nurses' knowledge toward BLS was adequate and positive according to their level of qualification. The overall knowledge was adequate. In the context of literature, Most of the healthcare providers are experts in their fields, but, when it comes to the competency of BLS, is not appropriate.

Basic life support knowledge is theoretically and practically important for every healthcare provider, so in this study, the knowledge of nurses who were practically involved in the patient care, has been evaluated. The result

of the study has shown that BLS knowledge has direct relationship with experience. It also shows that years of experience in their theoretical and practical knowledge of clinical site regarding the basic life support increased. BLS, Knowledge is higher in the practices nurses as compared to the non-practicing nurses, BScN knowledge is lower than MSN nurses. Salameh in 2018 stated that nursing student were not practically engaged with patient care, Master and Bachelor student were practically involved with patient care. At a result, their knowledge of BLS is higher than non-practicing nurses (Salameh et al., 2018).

Cardiopulmonary arrest in the patient was very high, but all the healthcare providers were not well trained as per need, basic life support is basic training to educate the people not only in the hospital but outside as well. Therefore, this is compulsory to educate the people in the homes, schools, colleges, and any other public areas to be able to save lives.

CONCLUSION

Although all nurses are supposed to have basic knowledge and skill of BLS as it is mandatory part of their basic training. However, keeping this skill and knowledge update, nurses themselves need to continue their education and experience. The present study has concluded that the nurses with higher education level and rich experience are holding much accurate knowledge and skill as compared to their counterparts.

Recommendation: BLS is very important competency for the student and nurses in the hospital setting, but there is also need to develop strategies for BLS training for non-healthcare professionals as well. Further studies are needed to be conduct on general population regarding this alarming issue.

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