

KNOWLEDGE, ATTITUDE AND PRACTICES OF BASIC LIFE SUPPORT AMONG NURSES: A CROSS-SECTIONAL STUDY IN MALAKAND DIVISION, KHYBER PAKHTUNKHWA

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ABSTRACT

OBJECTIVES

To assess the knowledge, attitude and practice regarding basic life support among nurses of three selected District Headquarter Hospitals of Malakand Division Khyber Pakhtunkhwa.

METHODOLOGY

A cross-sectional study was conducted using 210 nursing staff working in these three hospitals. Data were collected using questionnaire, adopted from American Heart Association guidelines 2015. Permission granted by the concerned university and hospital. Consent was taken from the study participants before collecting the data. Data was analyzed using SPSS version 24 for descriptive and inferential statistics.

RESULTS

More than half (52.9%) of the participants had moderately adequate knowledge regarding basic life support (BLS). Majority (60%) of the participants were not performing BLS voluntarily, 30% participants performed BLS but not voluntarily. Majority (82.4%) nursing staff had poor practices regarding basic life support. No significant association was found between the level of knowledge regarding basic life support, socio-demographic variables and participant's practices regarding basic life support.

CONCLUSION

Overall, nurses had moderately adequate knowledge and poor practices regarding basic life support. Very less number of nursing staff performed basic life support throughout their working career. Majority of the nursing staff were not basic life support certified. Majority of the nursing staff were not able to handle any emergency situation due to their lack of knowledge related to proper skills of basic life support. Nurses needs to be properly trained and certified BLS.

KEYWORDS: Basic Life Support, Knowledge, Attitude, Practice, Nurses

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INTRODUCTION

Basic life support is a set of techniques to keep the

person lively with sudden cardiac arrest, airway obstruction and stroke until the medical team arrived. Basic life support (BLS) is a part of emergency medical care.¹ Timely provision of basic life support can save a person life. Basic life support helps in recognition of signs of sudden cardiac arrest, heart attack, stroke and foreign-body airway obstruction, as well as performing cardiopulmonary resuscitation and defibrillation.² Basic life support can be performed anywhere, even it can be practiced in home, office, road or health care unit.³ Cardiac arrest is very common

challenging issue for the health care system. There is no surveillance and monitoring system for the outcome of cardiac arrest.⁴ Sudden cardiac deaths (SCD) are expected to occur from cardiovascular diseases. The symptoms of sudden cardiac death due to cardiovascular diseases can be observed one hour before onset. Non-cardiovascular diseases like, stroke, pulmonary embolism and aortic syndrome are also considered as the leading causes are alternative pathologies for sudden cardiac death.⁵ The overall survival of cardiac arrest patients to hospital admission was 29%, survival rate in public places was reported 39.5%, the survival rate of cardiac patients were reported low (27%) in homes and 18.2% survival rate was reported in nursing homes.⁶ Similarly, 19000 airway obstruction cases were reported in emergency room and 88% children who died from airway obstruction were around age four years and below. Basic life support plays an important role in reduction of mortality due to cardiac arrest, airway obstruction and stroke.⁷ Although, survival rate due to cardiac arrest, airway obstruction and stroke is very poor in all age groups but the chances of survival are very good without neurological damage and if the care is provided within 3-5 minutes. Health care professionals, especially nurses play important role in effective management of patients by providing basic life support.⁸ Nurses are considered as the back bone of any health care system. Nurses interacts 24 hours with patients and play a vital role in dealing the emergency situations in health care setting. Therefore, nurses are expected to have expertise in dealing cardiac arrests and emergency situations. However, studies have revealed that nurses often had poor Cardio Pulmonary Resuscitation skills. Similarly, low confidence and poor training have been reported among nurses providing basic life support in United Kingdom (UK) and Poland. Inadequate knowledge regarding basic life support among nurses and other medical health care professionals have been reported in Pakistan and Switzerland ,also nurses working in India were reported to have lack of awareness and poor practices regarding basic life support.^{9,10} According to one of the studies reported, only 28% nursing staff had good knowledge and practice regarding basic life support.¹⁰ Another study in India concluded that 38% nursing staff had good quality knowledge regarding BLS.¹¹ While another study in India estimated 50% of the nursing staff had excellent knowledge regarding BLS.¹² The rationale for conducting research in Malakand KPK was to identify the knowledge, attitude and practices of

nursing staff working in Malakand division regarding basic life support as these rural areas always have lack of trainings sessions and workshops for the development of nursing staff.

METHODOLOGY

This was a cross-sectional study conducted in selected three DHQ's hospitals of Malakand Division. District Headquarter Hospital (DHQ) Swat (Matta), District Headquarter Hospital Buner and District Headquarter Hospital Dir (Timergera). Ethical approval has been taken from KMU-IRB and consent form were taken for all study participants. There was total 218 nursing staff working in the three DHQs hospitals of Malakand division. Census sampling technique was used and all 218 Nursing staff were included in the study. The reliable and validated study tool (questionnaire) was adopted from The American heart Association which is practically implemented all over the world. The questionnaire includes two sections, section "A" is about demographic data and section "B" is about knowledge, attitude and practice regarding basic life support. There were 10 questions in the knowledge section. Each correct answer was given a score of one and for wrong answer zero score was given. A total score less than 50% was considered as inadequate knowledge; a score between 50 – 75% was considered as moderately adequate knowledge and score above 75% was considered as adequate knowledge regarding basic life support. Similarly, there were 10 questions in practice section. Marking was done accordingly, A total scores less than 50% was considered as poor practice; a score between 50 – 75% was considered as average practice and score above 75% was considered as good practices regarding basic life support. The data was analyzed using software SPSS version 24. Mean and standard deviation were calculated for continuous variables (Age). Percentages and Frequencies were calculated for other demographic variables like Gender, Experience, and Working Unit to make it concise, clear and convenient for understating. Chi square test was applied to identify significant differences in categorised groups.

RESULTS

A total of 218 participants were included in the study, out of which 210 participated in the study. The mean age of the participants was 36.80 years. Majority (44%) of the study participants were from

the age group 30 – 40 years (Figure 1). Majority (76.6%) study participants were female while 23.3% were male.

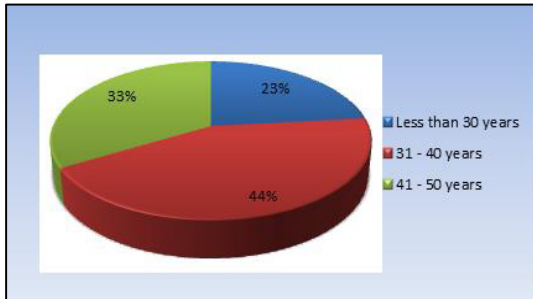


Figure 1: Pie-Chart depicting Age distribution of the participants.

More than half (52.9%) of the participants had moderately adequate knowledge regarding basic life support, 35.2% of the study participants had inadequate knowledge regarding basic life support while only 11.9% participants had adequate knowledge regarding basic life support (Table 1).

Level of Knowledge	Number	%age
Inadequate Knowledge (< than 50%)	74	35.2%
Moderate Adequate Knowledge (50 – 75%)	111	52.9%
Adequate Knowledge (> than 75%)	25	11.9%

Attitude relating to BLS were evaluated according to different questions asked from the participants. Majority (60%) of the study participants had never performed BLS voluntarily, 40% of the participants do not want to perform mouth to mouth ventilation for the same gender and 90% of the participants did not want to perform mouth to mouth ventilation for the opposite gender. Majority (82.4%) of the participants had poor basic life support practices, 10% of them had average basic life support practices while only 7.6% of the participants had good basic life support practices. (Figure 2).

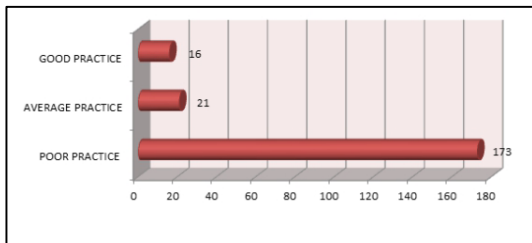


Figure 2: Bar-Chart Representing Practice of the Participants

DISCUSSION

In the present study, more than half (52.9%) of the participants had moderately adequate knowledge regarding basic life support, 35.2% of the participants had inadequate knowledge regarding basic life support while only 11.9% participants had adequate knowledge regarding basic life support. Majority (76.7%) of the participants reported that BLS training was necessary, 10% of the study participants reported that BLS training was not necessary while 6.7% of the study participants were not sure regarding the importance of BLS training and Majority (82.4%) of the study participants had poor basic life support practices, 10% of the study participants had average basic life support practices while 7.6% of the study participants had good basic life support practices. A research study conducted in Turkey revealed that 57% nurses had moderate adequate knowledge regarding basic life support. Among them 66% nursing staff reported accurate position for chest compression, 55% nursing staff reported accurate rescue breathing in neonate while 74% responded accurately answer regarding the depth of compression in CPR. 87% of the study participants were in favor of BLS training as a part of nursing curriculum, 71% participants were aware of the importance of BLS. 65% of the study participants had average practices regarding BLS.¹³ Another study was conducted in London on nurse’s knowledge and attitude and practices regarding basic life support. The findings of the study revealed that nurses (78%) had good knowledge regarding basic life support. Majority (69%) of the nursing staff had positive attitude towards basic life support. Almost every nursing staff reported the need of BLS training for nurses. Nurses (54%) had good practices regarding basic life support.¹⁴ The variation in the findings of the study as compared to the current study is due to the good health care facility. Basic life support certification is compulsory for nurses working in London hospitals but in Pakistan majority of the nurses working in government hospital have not been certified with basic life support training.¹⁵ Similarly, a study conducted in Pakistan revealed that the mean score of knowledge of nurses regarding basic life support was 80.02% while the mean score of practices of nurses regarding the basic life support was 42.42%. 49% of the study participants were BLS certified also there was significant association found between the level of knowledge and BLS training. 42% of the nursing staff performed CPR.¹⁶ According to another study conducted in Africa 58.8% nurses had inadequate

knowledge regarding basic life support. 34% of the study participants did not know the abbreviation for BLS. 67% of the study participants did not know the accurate position for chest compression. 77% of the study participants had poor practices regarding basic life support. only 11% of the nursing staff were BLS certified.¹⁷ In the same context, a study conducted was conducted in Greece. Majority (84%) of the nursing staff failed the theoretical questionnaire regarding basic life support. Only 10% of the nursing staff reported that, they had good knowledge regarding basic life support, whereas 31.2%, 44.2% and 14.3% of them rated it as good, moderate or not good respectively. Even the self-assessment did not correlate with the final grading of the questionnaire. The study concluded, low level of nurses knowledge regarding basic life support and they demonstrated poor practices regarding BLS.¹⁸ Almost all of the research studies from developing countries showed similar findings related to the knowledge and practices regarding basic life support. Research studies from developed countries present relatively good knowledge, attitude and practices of nurses regarding basic life support. Developed countries have a very good and advance system in health care field and they have a strict policy for nursing staff to be BLS certified and also focuses always ongoing training sessions.¹⁹

LIMITATIONS

This study has methodological limitations such as nonprobability sampling and lack of control over confounders that may affect generalization of findings.

CONCLUSION

Majority of nurses had moderate adequate knowledge and poor practices regarding basic life support. Very few numbers of nursing staff performed basic life support throughout their working career at hospital. Majority of the nursing staff were not basic life support certified and majority of the nursing staff were not able to handle any emergency situation due to unawareness about the proper skills of basic life support. This demands that nursing departments in all hospitals needs to develop nursing education services department that will help the nurses to improve their skills related to patient care. This department will also work on trainings and workshops relating to standard operating procedures and evidence-based practices.

CONFLICT OF INTEREST: None

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