



A STUDY TO ASSESS THE KNOWLEDGE REGARDING BASIC LIFE SUPPORT AMONG GNM NURSING STUDENTS IN SELECTED SCHOOL AT CUTTACK.

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ABSTRACT

A study was conducted to assess the knowledge regarding basic life support among GNM nursing students in selected school at Cuttack. Globally, cardiovascular disease (CVD) is the leading cause of death. Basic life support (BLS) provided at the right time is essential for improving mortality in medical emergencies. Accurate knowledge on this regard, in all nursing personals is an essential part of nursing education and it should be up to date with varying protocols. The aim of this study is to assess the knowledge among the undergraduate nursing students and provide suggestions to improve the training programme on BLS. A standardized self-administered questionnaire regarding knowledge on BLS was filled by GNM 1st year students, and the data was analyzed. There were 48 eligible candidates and finding shows that 40 percent sample had average knowledge, 45 percent students had average knowledge and 15 percent students had good knowledge on BLS. It was found that there was significant association ($p < 0.05$) between year of the study and health professional present in the family.

KEYWORDS : Basic Life Support (BLS), General Nursing and Midwifery (GNM), Cardiovascular disease (CVD)

INTRODUCTION

Cardiac arrest is the sudden cessation of cardiac function and most cardiac arrests in adults are sudden, resulting from a primary cardiac cause and hence, circulation produced by chest compressions is of paramount importance. The value of early cardiopulmonary resuscitation (CPR) is that it can buy time for the primary cardiac arrest patient by producing enough blood flow to the central nervous system and the myocardium to maintain temporary viability. To do so, however, CPR must be started early. Timely CPR improves the likelihood of survival by two to four times. Basic life support (BLS) comprises of the very basic tasks of resuscitation including CPR. The American Heart Association (AHA) guidelines for BLS include recognition and management of cardiac arrest, respiratory arrest, and choking in adults and the pediatric age group. Management of cardiac arrest includes a series of life-saving interventions like immediate recognition of cardiac arrest and activation of the emergency response team, early CPR, rapid defibrillation, effective advanced life support, and integrated post cardiac arrest care.

Dr. Abdulrahman Almesned (2014) conducted a cross sectional study on Basic life support knowledge of healthcare students and professionals in the Qassim University finished by 139 individuals. Objective of the study is to evaluate the knowledge of basic life support (BLS) among students and health providers. Only two out of the 139 participants (1.4%) scored 90–99%, six participants (4.3%) scored 80–89%, 11 participants (7.9%) scored 70–79%, twenty three responders (16.5%) scored 60–69%, and Twenty-eight participants (20.1%) scored 50–59%. The remaining 69 responders (49.6%) scored less than 50%. This indicated that medical students and health providers need to improve their knowledge level on BLS.

Vausedvan B., Lucas A., Devi M. G., Bhaskar A., Areekal B., (2016) on assessment of level of knowledge of basic life support algorithm among medical and nursing students in a tertiary care teaching hospital. In this cross sectional study 575 medical students and 236 nursing students joined and structured questionnaire used for data collection. It was found that median knowledge level score was 7 with an inter-quartile range of 4. Nursing students average knowledge level score was significantly higher (8.5 ± 2.8 Vs 6.6 ± 2.5 ; p value-0.001). Highest knowledge level was seen among those who had seen the BLS previously (15.2% Vs 4.5%; p value-0.001) or attended the BLS workshop previously (8.1% Vs 7.3%; p value-0.001). Higher level knowledge shown among final year medical and first year nursing students as compared to other students.

A cross sectional design by using self-administered questionnaires was completed by Ahmad A. et al. (2018) on Knowledge of basic life support among the students of Jazan University, Saudi Arabia: Is it adequate to save a life. Results showed that from 360 sample, the majority samples were male students (84.2%). The samples have mediocre knowledge of BLS, and their mean score was 7.83 out of 14. About 28% samples had received BLS training previously during their study course and showed better BLS knowledge (mean score 10.41) in comparison with the other samples. In contrast with the students of health science related courses, the highest mean knowledge score (11.5) was obtained by the students of emergency medical services, whereas the lowest score (6.58) was obtained by the students of nursing background.

Resende R. T., Barbosa A., et al. (2019) conducted a study by using a quantitative, descriptive and exploratory study method on knowledge of nursing academics on basic life support and the objective of the study is to evaluate the knowledge about basic life support with emphasis on cardiorespiratory arrest of Nursing undergraduates. An instrument was developed for this study which is based on the recommendations of the American Heart Association (AHA) 2015 guidelines. It is revealed that, of the 77 academics evaluated, 66% were female and the mean age was 18.37 years; in relation to the period, the highest number was of the sixth, with 24.7%, and the lowest of the eighth, with 2.6%, and only 32.46% of the students reached a grade equal to or greater than 70% of the questionnaire. It was identified that students who had passed through the discipline Adult Health, when the subject is approached, obtained a higher average grade than the students who did not attend said discipline, however, in a global way, the students present insufficient.

Awareness and understanding about the basic concepts of resuscitation is expected from every medical personnel involved in treating the patients. But only a few have followed up the BLS knowledge retention among the participants who have undergone the course.

Methodology:

A descriptive study was conducted in DRIEMS School and College of nursing where quantitative approach were used. Nursing students of the institution were our target population, 1st and 2nd year GNM nursing students were accessible population, 50 participants were selected using simple random sampling technique and data collection was done through structured knowledge questionnaire. The reliability of the tool was assessed and found to be: $r = 0.9531$. The data collection were carried out on 15 march 2022. Informed

consent was taken at the time of data collection with that description of the study, objectives and declaration of confidentiality were given to participants before administering the questionnaire. Participants were free to leave the questionnaires at any stage before completion of data collection process. The data analysis process were carried out by using descriptive and inferential statistics. Descriptive statistics such as frequency, percentage distribution, mean, mean percentage and standard deviation was calculated. The Chi-square test was used to analyses the association between knowledge score and selected demographic variables.

RESULTS:

Table 1: Percentage Distribution Of The Sample Characteristics (N= 50)

Sl. No.	Demographic variables		Frequency (F)	Percentage (%)
1	Age (years)	18-20	40	80
		>20	10	20
2	Year of the study	GNM 1 st year	24	48
		GNM 2 nd year	26	52
3	Health professional in family	Yes	15	30
		No	35	70
4	Types of family	Nuclear	31	62
		Joint	19	38
5	State	Odisha	18	36
		West Bengal	32	64
		Any other	0	0

It can be noted from table no 1 that 80 % of participant are in age group of 18-20, it also observed that 52 % participants are from GNM 2nd year. Most participants (62%) are belongs to nuclear family and 70 % participant don't not have any health professional person in their family and 64 percent participant are from west bangle.

Table 2: Distribution Of Level Of Knowledge Score Regarding BLS Among Nursing Students (N= 50)

Sl. No.	Level of knowledge	Frequency (f)	Percentage (%)
1.	Good	2	4
2.	Average	18	36
3.	Poor	30	60

Table no 2 depict that 60% of the participants had poor knowledge, 36% of participants had average knowledge and only 4% had good knowledge.

Table 3: Association Between Level Of Km=knowledge Score And Selected Demographic Variables. N= 50

Sl. No.	Demographic variables		χ ²	Df
1	Age (years)	18-20	0.776	1
		> 20		
2	Year of the study	GNM 1 st year	21.254	1
		GNM 2 nd year		
3.	Health professionals in family	Yes	12.531	1
		No		
4	Types of family	Nuclear	0.021	1
		Joint		
5	State	Odisha	0.211	4
		West Bengal		
		Any other		

Table 3 depicts that there was significant association (p<0.05) between year of the study and health professional present in the family as the calculated chi square value is greater than the table value. Hence the null hypothesis is rejected. There is no significant association between ages, types of family, state as the calculated chi square value is less than the table value. Hence the null hypothesis is accepted.

DISCUSSION

The study was supported by Aziz Shahrakivahed, Arbabsiar Azizollah, Hussein Shaddai Elaheh Asadibimeshki et al (2015) who carried out a quasi-experimental study to assess the effect of CPR workshop on the nurse's level of knowledge and skill in the hospital affiliated to Zabol University of medical science, Iran in collaboration with the school of nursing and midwifery. The knowledge questionnaire was used for data collection. The finding brought out that the level of skills of most of the units under study before training was 50 % average and after training, 43 % excellent and 36% good and this difference was statistically significant. The results also showed that 85% of the participants were very well satisfied with the CPR training workshop. In our study we found that 60% of the participants had poor knowledge, 36% of participants had average knowledge and only 4% had good knowledge. There were significant association between the level of knowledge score and selected demographic variables as year of study, health professional in family and there was no significant association between the level of knowledge and selected demographic variables like age, types of family, and state.

CONCLUSIONS

Overall knowledge about BLS among the students was very poor. These findings call for an improvement in BLS education among GNM students so as to ensure appropriate responses in cardiac arrest or other emergency situations.

Implication For Nursing Practice

The under graduate nursing student should have proper knowledge regarding BLS for preventing life threatening condition. Student should always update their knowledge regarding BLS.

Ethical Consideration Of The Present Study

Ethical clearance was obtained from Institutional Ethics Committee of DRIEMS Group of Institution, Cuttack. Informed consent was obtained from subjects after explaining the study and assurance given to maintain confidentiality.

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