

Assess The Knowledge Regarding Basic Life Support Among Nursing Students of College of Nursing, Kurji Holy Family Hospital, Patna, Bihar

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Abstract

Life is the period of time when a person is alive. Emergency is an unexpected development or happening which needs immediate medical action. Basic Life Support (BLS) is a specific level of pre-hospital medical care provided by a trained professional. The main objectives of the study were to assess the Knowledge regarding BLS among nursing students and to find the association between BLS with the selected demographic variables. The total samples were 50 nursing students selected by simple random sampling. The structured knowledge questionnaire were used and reliability was ascertained ($r=0.9642$). The findings showed that 50 percent samples had average knowledge, 48 percent had poor knowledge, 2 percent had good Knowledge regarding BLS. The total score obtained by the samples was 705 and the mean knowledge score was 14.1. The results revealed that there was significant association ($p<0.05$) between the level of Knowledge and selected demographic variables like year of study, and health professional in the family and no significant association ($p>0.05$) between the level of knowledge and selected demographic variables like age, religion, type of family, state and mother tongue. Hence the corresponding hypotheses H02 is accepted whereas the H02 is rejected in selected demographic variables like year of study and health professional in the family.

Keywords: - Knowledge, Basic Life Support, Student nurse

Basic Life Support (BLS) is a key component in the chain of survival that decreases the possibility of cardiac arrest and increases the rate of hospital discharge. In recent years, several publications have highlighted the deficiencies in cardiopulmonary resuscitation (CPR) quality both out of the hospital and in the hospital, which have partly been addressed in the newer BLS guidelines. Basic Life Support generally refers to the type of care provided by the first responder's health care providers and public safety professionals provide to anyone who is experiencing cardiac arrest, respiratory distress or an obstructed airway. Basic Life Support is a specific level of pre-hospital medical care provided

by the trained responders, including emergency medical technicians, in the absence of advanced medical care; it generally does not include the use of drugs or invasive skills and can be contrasted with the provision of Advanced Cardiac Life Support (ACLS). CPR provided in the field increases time for higher medical responders to arrive and provide ACLS.

Objectives

This study was conducted with twin objectives.

1. To assess the knowledge regarding Basic Life Support among nursing students.
2. To find the association of knowledge regarding Basic Life Support with the selected demographic variables.

Review of Literature

Awais Ahmad, Shafiu Haque (2018) conducted a cross sectional study to assess Knowledge of Basic Life Support among the students of Jazan University, Saudi Arabia in which 360 participants were

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selected. Self-structured survey questionnaire was used for data collection. Result showed that 74.4 percent were aware of CPR whereas 62.5 percent had less than required knowledge.

Babar Irfan, Ibrahim Zahid (2019) carried out a multi-centric cross-sectional survey to assess and compare the knowledge of BLS among doctors, dentists and nurses in Karachi at different institutions belonging to the private as well as government sector. The total sample size was 140. The data was collected through structured questionnaire. The result revealed that among all participants only one individual (dentist) received a full score of 100 percent. In total, 58.3 percent of the population had inadequate knowledge. Average score of doctors, dentists and nurses were 53.5, 43.3 and 38.4 percent respectively. Doctors having participated in prior training in BLS and those with 6 to 10 years after graduation were found to be a significant predictor of adequate knowledge, on multivariate analysis.

Selmin Kose, Semiha Akin, and Sonay Goktas (2020) conducted a non-randomised experimental study to assess the effectiveness of Basic Life Support training among Nursing students and knowledge of Basic Life Support practice among nursing students of College of Nursing School Turkey. There were 65 first year nursing students selected as samples. The students' Knowledge and Practices were assessed before Basic Life Support training using Knowledge assessment questionnaire. The practice skill for Basic Life Support was observed by using checklist. The result findings showed that after Basic Life Support training, level of Knowledge and Practical Skill scores were higher compared to pre-training scores ($t=-12.442$, $p=0.000$, $t=22.899$, $p=0.000$). There was significant and moderate association between the adult Basic Life Support Knowledge from scores and adult Basic Life Support practice assessment from scores obtained after the training ($r=0.39$, $p<0.01$).

Need for the study: Every year external CPR training courses were conducted by the instructor. First it was conducted to medical personnel and later to some but not all lay person. At present 30 percent out of hospital resuscitation attempt are initiated by bystanders; 93 percent of cardiologist and 62 percent physician recommended CPR training for at least half of the families of high-risk patients. This study was conducted in Bihar to assess the level of knowledge and to provide some measures to improve knowledge regarding Basic Life Support.

Methodology

A descriptive study was conducted in Kurji

Holy Family Hospital, Patna, Bihar. In the present study quantitative approach were used. Nursing students of College of Nursing Kurji Holy Family Hospital were our target population; 2nd and 3rd year nursing students of KHFH were accessible. Study population: 50 participants were selected using simple random sampling technique and data collection was done through structured knowledge questionnaire. The reliability of tool was assessed and found to be: $r=0.9642$. The data collection was carried out on 13 December 2020. The description of the study, objectives and declaration of anonymity and confidentiality were given to the participants before administering the questionnaire. Informed consent was taken from each participant at the time of data collection. During the data collection participants were free to leave the questionnaire at any stage before the completion of data collection process. The data analysis was carried out 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 analyse the association between knowledge score and selected demographic variables.

Table 1: Percentage distribution of the sample characteristics (N=50)

Sl.No.	Demographic variables		Frequency (f)	Percentage (%)
1	Age (years)	18-20	40	80
		21-23	10	20
		24-26	0	0
		More than 26	0	0
2	Religion	Hindu	35	70
		Muslim	1	2
		Christian	14	28
		Others	0	0
3	Year of study	Basic BSc 2nd year	24	48
		Basic BSc 3rd year	26	52
4	Health professional	Yes	25	50
		No	25	50
5	Type of family	Nuclear	31	62
		Joint	19	38
6	State	Bihar	38	76
		Kerala	0	0
		Jharkhand	4	8
		Others	8	16
7	Mother tongue	Hindi	42	84
		Malayalam	0	0
		Bengali	0	0
		Any other	8	16

Table 2: Distribution of level of Knowledge score regarding Basic Life Support among nursing students (N=50)

Sl.No	Level of knowledge	Frequency	Percentage
1	Good (20-25)	1	2%
2	Average (14-19)	25	50%
3	Poor (8-13)	24	48%

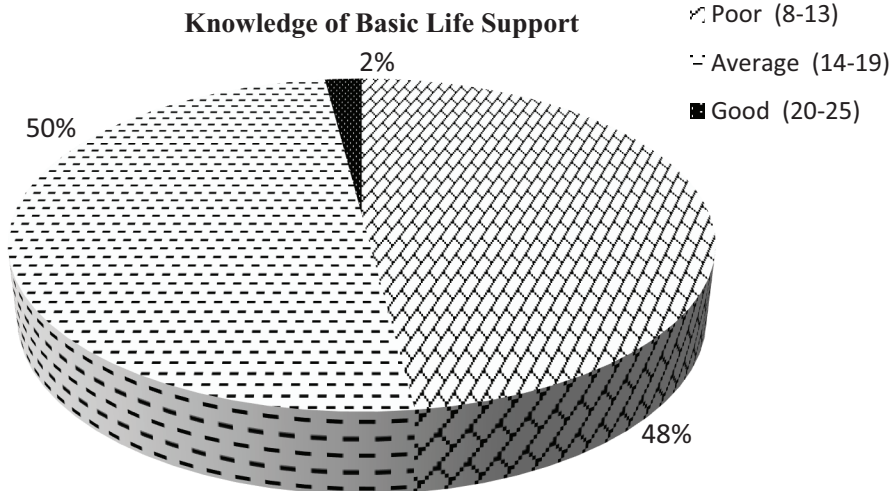


Fig 1 - Pie diagram depicting the percentage distribution of nursing students according to the level of Knowledge regarding Basic Life Support.

Ethical consideration: Written permission was taken from Principal of College of Nursing, Kurji Holy Family Hospital, Patna for data collection.

Results

The study results are divided into three sections: Frequency and Percentage distribution of Demographic variables

Table 1 depicts the demographic data of 50 students of Kurji Holy Family Hospital. Majority of the samples (80%) were under the age 20 years; 70 percent were Hindus. 52 percent were from 3rd year Basic BSc nursing, 50 percent students' family members were health professionals whereas other (50%) family members were not,

Table 3: Association between level of knowledge score and selected demographic variables

Variables	Level of Knowledge				
	X ² value	df	Table value	p value	Inference
Age	0.7688	1	3.84	>0.05	NS
Religion	7.39	4	9.49	>0.05	NS
Year of study	20.75	1	3.84	<0.05	S
Health professional in family	12.55	1	3.84	<0.05	S
Type of family	0.0126	1	3.84	>0.05	NS
State	1.63	4	9.49	>0.05	NS
Mother Tongue	0.117	1	3.84	>0.05	NS

62 percent were belonged to the nuclear family, 76 percent belonged to Bihar and 84 percent were Hindi speaking students.

Level of Knowledge score regarding Basic Life support among Nursing students

Inference: Table 2 and Fig 1 depict that 50 percent of the students had average knowledge, 48 percent of the nursing students had poor knowledge and only 2 percent had good knowledge.

Association between Level of Knowledge and Selected Demographic Variables

Inference: Table 3 depicts that there was significant association ($p < 0.05$) between year of study and health professional in the family as the calculated chi square value is greater than the tabulated value. Hence the null hypothesis is rejected. There was no significant association between age, religion, type of family, state and mother tongue as the calculated chi square value is less than the tabulated value. Hence the null hypothesis is accepted.

Discussion

This study is supported by Aziz Shahrakivahed, Arbabsiar Azizollah, Hussein Shaddai Elaheh Asadibidmeshki et al (2015) who carried out a quasi-experimental study to assess the effect of CPR workshop on the nurses 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 findings brought out that the level of skills of most of the units under study before training was 50 percent average and after training, 43 percent excellent and 36 percent good and this difference was statistically significant. The results also showed that 85 percent of the participants were very well satisfied with the CPR training workshop. In our study 48 percent participants had poor knowledge, 50 percent had average knowledge and 2 percent had good knowledge regarding Basic Life Support.

There were significant association between the level of knowledge score and selected demographic variables as year of

study and health professional in family and there was no significant association between the level of knowledge and selected demographic variables like age, religion, type of family, state, and mother tongue. Hence the corresponding hypotheses H02 is accepted with selected demographic variables like age, religion, type of family, state, and mother tongue, whereas the H02 is rejected in selected demographic variables like year of study and health professional in the family.

Recommendations

Similar study can be repeated in College of Nursing, Kurji Holy Family Hospital where more participants can be assessed to check the level of knowledge, skills and its practice.

Similar study can be done on a large sample size to establish the generalisability.

Implications

Nursing Practice

- The nursing students should have adequate knowledge regarding Basic Life Support for the prevention of life-threatening conditions.
- It is the responsibility of the nursing students to update their knowledge and skills regarding Basic Life Support.
- The physician and nursing personnel may motivate and provide knowledge to the nursing students for the control and prevention of life-threatening conditions.

Nursing Education

Nursing educator should educate the nursing students about teaching program on improvement of knowledge on Basic Life Support.

Regular teaching programme or in-service education programme could be conducted for nursing students to enhance their knowledge and Basic Life Support.

Nursing Administration

- Nursing administration can renew the policies of Basic Life Support protocol for training the nurses with life threatening conditions.
- Nursing administrators should motivate the nursing student to attend in-service education programme in order to update their knowledge.
- Nursing administrator can encourage the researchers to conduct the research to identify the effectiveness of other educational interventions.

Conclusion

Basic Life Support is a type of certification that

medical professionals can qualify to complete a training programme and to pass the exam that covers different types of Life saving techniques. All the nursing professionals should have adequate knowledge regarding Basic Life Support. Hence the researchers need to provide some measures to improve knowledge regarding Basic Life Support.

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