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THE NEED FOR IN-SERVICE EDUCATION PROGRAMME ON BASIC LIFE SUPPORT FOR NURSING PROFESSIONALS

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ABSTRACT

Background: Basic Life Support (BLS) is the recognition of sudden cardiac arrest and activation of the emergency response system, followed by resuscitation and rapid defibrillation.1 It is very important to highlight the necessity of teaching basic life support (BLS) to the Nursing professionals, so that they can be equipped with BLS knowledge and skills to be able to handle critical cases during their in their clinical area. Aim: - The aim of this study is to assess the effectiveness of the in-service education programme on knowledge regarding BLS among the Nursing Professionals Methods: This is an Experimental study. Data related to knowledge regarding BLS was collected among 300 Professional Nurses before and after the administration of the in-service education programme. Results: Study findings reveal that out of 300 samples, 260 (86.66%) of Nurses had poor Knowledge, 40 (13.33%) of Nurses had average Knowledge and none of the nurses had good Knowledge. Whereas in the Post Test, out of 300 samples, only 06 (2%) of Nurses demonstrated poor Knowledge, 119 (39.66%) of Nurses achieved average Knowledge, and 175 (58.33%) of the Nurses got good Knowledge scores. The calculated value t-value 49.80 was greater than the tabulated t-value at 0.05 level of significance. So, statistically, it is proved that In-Service Education is effective in increasing the knowledge of Nurses regarding BLS. The socio-demographic variables such as area of work and Years of clinical experience are found to be significant with a pretest knowledge score at 0.05 level of significance. Conclusions: This study concluded that the In-Service Education of BLS provided to the professional Nurses of selected Hospitals was very effective in increasing the knowledge of the Nursing Professionals regarding BLS.

Keywords: Basic Life Support, In-Service Education, Nursing Professionals

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INTRODUCTION

Basic life support (BLS) is an emergency procedure that consists of recognizing an arrest and initiating proper cardio pulmonary resuscitation (CPR) techniques to maintain life until victims either recovers or is transported to medical facility where advanced life support are available. It is very important that all nurses know about basic life support to save the lives of patients.[2]

Resuscitation is the art of restoring life or consciousness of one apparently dead. Basic life support (BLS) is the foundation for saving lives following cardiac arrest. Fundamental aspects of BLS include recognition of sudden cardiac arrest (SCA) and activation of the emergency response system, early Cardiopulmonary Resuscitation (CPR), and rapid defibrillation with an Automated External Defibrillator (AED)[3]. The most important aspects in BLS are airway, breathing, and circulation. Failure of the circulation for three to four minutes will lead to irreversible cerebral damage. Cardiac arrest is an important acute emergency situation both in/out of the hospital set ups and carries a high level of mortality risk, however, if early BLS and cardio pulmonary resuscitation is initiated, the survival rate can be substantially improved. Knowledge of BLS is a major determinant in the success of resuscitation and plays a vital role in the final outcome of acute emergency situations[4].

Nursing professionals are usually the first to witness a cardiac arrest at the hospital and call for the assistance team. Thus, nurses need to have updated technical knowledge and practical skills developed to contribute more efficiently to cardiac arrest maneuvers[5]. Being important members of the healthcare team, nurses are deemed to possess the basic skills and expertise needed to perform CPR. It is documented that a timely performed CPR can largely prevent sudden death, and it is hence considered to be an important medical procedure. To perform the procedure in a meticulous manner, nurses should be knowledgeable, and they should have expertise in the procedure[6,7]. Demand for BLS is ever increasing worldwide. In recent years, several publications have highlighted the deficiencies in CPR quality, both out-of-hospital and in-hospital, which have partly been addressed in the newest BLS guidelines[8].

MATERIALS & METHODS

A Quantitative Research with one group pre-test post-test design was done in selected tertiary care Hospitals of Vadodara, Gujarat, India. Approval of the Institutional Ethics Committee was obtained prior to the conduction of the study. The study subjects were professional nurses working in tertiary care hospitals of Vadodara, Gujarat. A total of 300 samples were selected by the nonprobability-purposive sampling technique. The pilot-tested questionnaire was administered to each study participant. The subjects were explained about the need of the study and informed consent was taken. A self-administered Structured questionnaire was used for data collection. Data were analyzed by using descriptive and inferential Statistics.

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FINDINGS

Table 1: Distribution of samples according to pretest & posttest knowledge index regarding BLS.

N=300

Knowledge Score	Poor	Average	Good
Pre Test	260 (86.66%)	40 (13.33%)	0(0%)
Post Test	6 (2%)	119 (39.66%)	175 (58.33%)

Table 1 reveals that out of 300 samples, 260 (86.66%) of Nurses had poor Knowledge, 40 (13.33%) of Nurses had average Knowledge, and none of the Nurses had good Knowledge. Whereas in the Post Test, out of 300 samples, only 06 (2%) of Nurses demonstrated poor Knowledge, 119(39.66%) of Nurses achieved average Knowledge, and 175(58.33%) of the Nurses got good Knowledge scores.

Table 2:- Comparison of pre-test and post-test knowledge score of professional nurses

N=300

Variable	Test	Mean	Mean Difference	Standard Deviation	t- Value
Knowledge Regarding BLS	Pre Test	8.45	12.06	2.15	49.80
	Post Test	20.51		5.71	

p=0.05 level of significance

Table 2 shows that the overall mean score of knowledge in the test was 8.45, while after providing the In-Service Education regarding BLS, the mean Knowledge score was increased up to 20.51. The standard deviation of the test was 2.15. After providing the In-Service Education, The Standard Deviation was 5.71. The calculated value t-value 49.80 was greater than the tabulated t-value at 0.05 level of significance. So, statistically, it is proved that the In-Service Education is effective in increasing the knowledge of Professionals Nurses regarding BLS.

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Table 3: Association between the knowledge regarding BLS with their selected demographic variables:

No.	Variable		Knowledge index			Chi-Square value χ^2	Inference
			Poor	Average	Good		
1.	Years of clinical experience	≤ 1 year	177	6	0	18.9	S*
		2-5 years	65	7	0		
		5- 10 years	10	13	0		
		>10 years	8	14	0		
2.	Area of work	Casualty	20	10	0	19.3	S*
		Critical Units	8	25	0		
		General Wards	197	4	0		
		O.T	35	1	0		

The table reveals that Knowledge score was higher in Nurses working in Critical Areas of hospital and having more years of clinical experience.

DISCUSSION

Heart disease is the world's largest killer claiming 17.5 million lives every year. About every 29 seconds, an Indian dies of a heart problem. As many as 20,000 new heart patients develop every day. In India, 9 crore Indians suffer from heart disease and 30% more are at high risk. Basic Life Support (BLS) is the provision of treatment designed to maintain adequate circulation and ventilation to the patient in cardiac arrest, without the use of drugs or specialist equipment.[9]

The findings of the present study show that more than half of the samples have poor knowledge regarding BLS. Similar tour findings: Similar to our findings, a study conducted by Akshatha Rao Aroor et al. shows that the overall mean score of awareness was only 4.16 ± 1.40 (score range: 0-10). About 322 (61.9%) subjects attributed a lack of awareness about BLS to a lack of available professional training. About 479 (92.1%) responded that BLS training should be a part of the medical and paramedical curriculum.[10] The present study concluded that post-test knowledge is significantly higher than the pre-test score, so it indicates an effective outcome of the In-Service Education on BLS among Nursing Professionals. These findings echoed a study conducted in P.G. College of Nursing C.H.R.I, Gwalior (M.P.) to assess the knowledge and knowledge of practice of 60 B.Sc. Nursing second-year students regarding BLS. After the implementation of the planned teaching programme, the experimental group students scored up to 79.175%, as the control group scored 60.33% regarding BLS. The study finding revealed that the planned teaching programme was effective in increasing the knowledge and knowledge of practice regarding BLS[11]. The findings of our study is comparable with Another study

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conducted among BSc Nursing students to assess and evaluate the effectiveness of a planned Teaching Programme regarding Basic Life support in college of Nursing in Delhi among 30 Nursing Students revealed that the planned teaching programme and demonstration on basic life support was effective in enhancing the knowledge as well as skill of the nursing students.[12]

CONCLUSION

The present study concluded that the knowledge of the Nursing Professionals can be increased by giving them timely training and conducting teaching programs. It will help them to keep their knowledge updated and encourage them to improve their knowledge and skills.

REFERENCES

1. Irfan B, Zahid I, Khan MS, Khan OA, Zaidi S, Awan S, Bilal S, Irfan O. Current state of knowledge of basic life support in health professionals of the largest city in Pakistan: a cross-sectional study. BMC health services research. 2019 Dec 1;19(1):865.
2. Phipps ,W.J, Medical Surgical Nursing:Health and illness prospectives. 2003: Mosby
3. Shekhawat, K., & Chauhan, A. Available on: (2014) Knowledge of Basic Life Support among the Interns and Postgraduate Students of Dental Colleges in Banglore City, Karnataka International Journal of Health Sciences and Research Volume, 158-166
4. Reddy, S., et al., Awareness of Basic Life Support among the professionals and students in a Dental School. Journal of Contemporary Dental Practice, 2013. 14(3): p. 511-517. http://dx.doi.org/10.5005/jpjournals-10024-1353
5. Lima, S.G., et al., Permanent education in BLS and ACLS: Impact on the knowledge of nursing professionals. Arquivos Brasileiros de Cardiologia 2009. 93(6).
6. Parajulee, S. and V. Selvaraj, Knowledge of Nurses Towards Cardio-pulmonary Resuscitation in a Tertiary Care Teaching Hospital in Nepal. Journal of Clinical and Diagnostic Research, 2011. 5(8): p. 1585-1588.
7. Choi, H.S., et al., Peer-assisted learning to train high-school students to perform basic life support. World Journal of Emergncy Medicine, 2015. 6(3): p. 186-190. http:// dx.doi.org/10.5847/wjem.j. 1920-8642.2015.03.004
8. Shrestha R etal . ,Basic life support:knowledge and attitude of medical/ paramedical professionals. World Journal of Emergency Medicine, 2012. 3(4): p. 141-145.
9. Singh Meherban, Medical Emergency for Adults, 4th Edition, New Delhi, N.K. Sagar Publication, 2007.

DOI Link :: https://doi-ds.org/doilink/03.2025-11188337/UIJIR

10. Jamalpour MR, Asadi HK, Zarei K. Basic life support knowledge and skills of Iranian general dental practitioners to perform cardiopulmonary resuscitation. Nigerian medical journal: journal of the Nigeria Medical Association. 2015 Mar;56(2):148.

11. Deepa PD. A quasi-experimental study to assess the effectiveness of a planned teaching programme on knowledge and knowledge on practice of Basic life support among B. Sc nursing second year students in PG College of nursing Gwalior, Madhya Pradesh, India.

12. Sharma P, George G. Study to Assess and Evaluate the Effectiveness of a Planned Teaching Programme Regarding Basic Life Support In Terms of Knowledge and Skill of Nursing Students in Selected College of Nursing in Delhi. International Journal in Management & Social Science. 2016;4(6):501

DOI Link :: https://doi-ds.org/doilink/03.2025-11188337/UIJIR