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"A Study on Basic Life Support: Knowledge and Attitude of Medical and Paramedical Professionals on BLS."

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KEY WORDS: *IAP Indian Academy of Pediatrics, Basic life support (BLS), Cardiopulmonary resuscitation (CPR), Training, Knowledge, Attitude*

BACKGROUND:

Basic life support (BLS), a key component of the chain of survival decreases the arrest – cardiopulmonary resuscitation interval and increases the rate of hospital discharge. The study aimed to explore the knowledge of and attitude towards basic life support (BLS) among medical/paramedical professionals. Individuals in the community at least the health care professionals should know how to perform BLS as they encounter such situation very often.[5] Health care professionals are expected to be competent to resuscitate from their first posting. In the United States, BLS training has been recommended for all health care professionals since 1966[6] especially for those who are involved in resuscitation.[7] Demand for courses of BLS is ever-increasing worldwide.

Cardiac diseases are among the leading causes of death worldwide. The sudden cardiac arrest requires emergency interventions that increasingly occurs in all age groups.[1] Life-saving interventions are vital for the prevention of sudden cardiac arrest associated deaths.[2] Successful cardiopulmonary resuscitation is the first step for returning to life in people experiencing cardiac arrest. Successful cardiopulmonary resuscitation at the scene by health team members plays a role in reducing mortality rates related to cardiac arrest.[3]

The American Heart Association emphasizes the need to gain competency regarding cardiopulmonary resuscitation practices in health team members in order to reduce the rate of sudden cardiac arrests.[4] However, theoretical education alone is not sufficient for applying a successful cardiopulmonary resuscitation. In order to successfully apply cardiopulmonary resuscitation, current knowledge should be updated, technical skills should be consolidated, and sufficient self-esteem related to the application should be established in accordance with training and manual guidelines prepared for the health team.

In another study, Madhavan *et al*. [11] observed that the majority of SCA events were at home, and almost 85% of these events were witnessed. It is now scientifically proven that bystander CPR provided to the victim improves the chances of survival in out-of-hospital cardiac arrest. Also, data show that in an event of a cardiac arrest, the victim would usually be with his/her near and dear ones, and these kin would have the best chance to provide immediate CPR and enhance the chances of survival. Thus, it is important that every member of the society be trained in BLS and CPR for all of us to feel safe and secure in the event of SCA.

There are modular training programs designed by the Indian Academy of Pediatrics (IAP) ALS BLS group [3]. The modules have been developed similar to those on lines of AHA, but Indian scenarios and milieu have been accounted for. Different modules are available to cater to different segments of the society. The IAP BLS training includes comprehensive CPR skills for infant, child and adult victim, apart from the maneuvers for foreign body removal in case of choking, unlike many other groups in India, which impart CPR training for only adult victims. There are certificate courses – in which the delegates are subjected through skill-based competency test and awarded a successful completion certificate only on fulfilling the laid down criteria. There are awareness programs where the delegates are provided with bare minimum knowledge and few essential skills of CPR along with handouts. They are not subjected to evaluation process. The courses and programs are designed for doctors, nurses, paramedics and nonmedical personnel. The training is supported by a manual as well as videos. Delegates of IAP BLS certificate courses, who are proficient in skills as well as have the aptitude to teach and spare time for training others with good command over the communication skills, are invited to undergo special training to become instructors in BLS by the IAP BLS group. [12]

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.[10] As a preliminary step, this study aimed to explore the level of knowledge and attitude towards BLS among medical/paramedical staffs in private Medical College and Hospital Chinnakonrupadu, Guntur, thereby to guide future planning of BLS program in this hospital. After this study, we hope that all aspects of BLS training for medical personnel will be improved and standardized.

PROBLEM STATEMENT

A study on Basic life support: knowledge and attitude of medical and paramedical professionals in Visakhapatnam Andhra Pradesh.

OBJECTIVES:

1. To assess the demographic variable.
2. To assess the knowledge response by self prepared questionnaire.
3. To assess the level of attitude and personal experience on BLS (Guidelines of IAP Indian Academy of Pediatrics)

METHODS:

An observational study was conducted by assessing response to self prepared questionnaire consisting of the demographic information of the medical/paramedical staff, their personnel experience/attitude and knowledge of BLS based on the BLS (Guidelines of IAP Indian Academy of Pediatrics)

Study tools

A questionnaire was prepared by the authors encompassing 3 main domains:

1. Demography and professional qualification of the participants;
2. Experience in and attitude of the participants to BLS/CPR (6 open-ended and MCQs);
3. Theoretical and practical knowledge of the participants related to BLS (set of self-prepared 15 MCQs with 5 options based on BLS (Guidelines of IAP Indian Academy of Pediatrics).

The validity of the questionnaire was determined by piloting in other hospitals before it was finalized for the study. After appropriate changes made in the questionnaire after the piloting, ethical approval was obtained.

RESULTS:

After excluding incomplete questionnaires, the data from 121 responders (27 clinical faculty members, 21 dental and basic sciences faculty members, 29 house officers and 44 nurses and health assistants) were analyzed. Only 10 (7.4%) of the 121 responders answered ≥11, 53 (43%) answered 7-10, and 58 (48%) answered <7 of 15 questions correctly. The clinical faculty members, house officers and nurses/HA had a mean score of 7.4±3.15, 7.37±2.02 and 6.63±2.16 respectively, while dental/basic sciences faculty members attained a least mean score of 4.52 ±2.13 (P<0.001). Those who had received cardiopulmonary resuscitation (CPR) training within 5 years obtained a highest mean score of 8.62±2.49, whereas those who had the training more than 5 years back or no training obtained a mean score of 5.54±2.38 and 6.1±2.29 respectively (P=0.001). Those who were involved in resuscitation frequently had a higher median score of 8 in comparison to those who were seldom involved or not involved at all (P<0.001).

CONCLUSIONS:

The average health personnel in our hospital lack adequate knowledge in CPR/BLS. Training and experience can enhance knowledge of CPR of these personnel. Thus standard of CPR/BLS training and assessment are recommended at our hospital.

REFERENCES:

i. Ritter G, Wolfe RA, Goldstein S, Landis JR, Vasu CM, Acheson A, et al. The effect of by-stander CPR on survival of out-of-hospital cardiac arrest victims. *Am Heart J.* 1985;110:932–937. [PubMed] [Google Scholar]

ii. Wenzel V, Lehmkuhl P, Kubilis PS, Idris AH, Pichlmayr I. Poor correlation of mouth-to-mouth ventilation skills after basic life support training and 6 months later. *Resuscitation.* 1997;35:129–134. [PubMed] [Google Scholar]

iii. Wik L, Steen PA, Bircher NG. Quality of bystander cardiopulmonary resuscitation influences outcome after prehospital cardiac arrest. *Resuscitation.* 1994;28:195–203. [PubMed] [Google Scholar]

iv. Gwinnutt C, Columb M, Harris R. Outcome after cardiac arrest in adults in UK hospitals: effect of the 1997 guidelines. *Resuscitation.* 2000;47:125–135. [PubMed] [Google Scholar]

v. Cooper S, Johnston E, Priscott D. Immediate lifesupport training. Impact in a primary care setting? *Resuscitation.* 2007;72:92–99. [PubMed] [Google Scholar]

vi. Cardiopulmonary resuscitation: statement by the Ad Hoc Committee on Cardiopulmonary Resuscitation of the Division of Medical Sciences, National Academy of Sciences, National Research Council. Cardiopulmonary Resuscitation. *JAMA.* 1966;198:372–379. [Google Scholar]

vii. Royal college of anesthetist; 1999. Guidelines for the provision of anaesthetic services. Anesthetic practice in respect of resuscitation. [Google Scholar]

viii. Parajuli S, Selvaraj V. Knowledge of nurses towards cardiopulmonary resuscitation in a Tertiary care teaching hospital in Nepal. *J Clin Diag Res.* 2011;5:1585–1588. [Google Scholar]

ix. Shrestha R. Comparative study on level of knowledge of nursing personnel working in critical/ general ward regarding cardiopulmonary resuscitation in BPKIHS, Dharan, Nepal [Google Scholar]

x. Document 2005 International Consensus on Cardiopulmonary Resuscitation and Emergency Cardiovascular Care Science with Treatment Recommendations (CoSTR) [PubMed] [Google Scholar]

xi. Madhavan SR, Reddy S, Panuganti PK, Joshi R, Mallidi J, Raju K, *et al.* Epidemiology of sudden cardiac death in rural south India – Insights from the Andhra Pradesh rural health initiative. Indian Pacing Electro Physiol J. 2011;11:93-102.

xii. IAP ALS-BLS. Available from: *https://www.iapalsbls.org/* Accessed November 24, 2019.