

Effective Planned Teaching Programme on Knowledge & Practice of Basic Life Support among Students in Mangalore

Anil Kumar Parashar

Introduction

Heart disease is the world's largest killer, claiming 17.5 million lives every year. About every 29 seconds, an Indian dies of heart problem. As many as 20,000 new heart patients develop everyday in India, six crore Indians suffer from heart disease and 30 percent more are at high risk. By 2020, India will have the largest coronary heart disease (CAD) burden in the world and will account for one third of all deaths, many of them will be young. The risk of sudden cardiac death from coronary artery disease in adults is estimated to be 1 per 1,000 adults 35 years of age and older per year. About 75 percent to 80 percent of all out-of-hospital cardiac arrests happen at home. Hence, being trained to perform basic life support (BLS) can make the difference between life and death for a victim.

Effective BLS provided immediately after cardiac arrest can double a victim's chance of survival. If more people know BLS, more lives can be saved. Health behaviour is a major target of teaching and it is assumed that teaching helps in changing behaviour through cognitive and psychomotor changes. Each individual is responsible for maintenance of their health.

The younger generation needs to grow into healthy behaviour and acquire health-related knowledge and skills hence the investigator felt that planned teaching programme is

the method of imparting necessary skills on BLS with which casualties can be revived.

Objectives

1. To assess the existing level of knowledge and practice of high school student on BLS.
2. To develop and validate planned teaching programme (PTP) on knowledge and practice regarding basic life support.
3. To determine the effectiveness of PTP in terms of gain in knowledge and practice scores.
4. To determine the relationship between knowledge and practice scores of BLS among high school students.

Conceptual Framework

The conceptual framework adopted for the study was from general systems theory by Ludwig von Bertalanffy.

Assumptions

1. High school students will have some knowledge on basic life support.
2. High school students have the potential to learn about BLS.
3. Knowledge and practice are measurable.
4. There will be a relationship between knowledge and practice of BLS.
5. PTP is an effective way to improve the knowledge on BLS of high school students on BLS.

Hypotheses

To achieve the stated objectives, the following hypotheses were formulated at 0.05 level of significance.

H₁: The mean post-test knowledge score of students will be significantly higher than the mean pre-test knowledge scores on BLS.

H₂: The mean post-test practice score of students who underwent PTP will be significantly higher than the mean pre-test practice score on BLS.

H₃: There will be a significant relationship between knowledge and practice of high school students on BLS.

Delimitations

The study is delimited to:

1. high school students of 14-16 years studying in 10th standard.
2. high school students who are willing to participate.
3. high school students of rural Mangalore.
4. demonstration of mouth-to-mouth ventilation and external cardiac compression.
5. high school students who can speak and read English.
6. high school students present at the time of data collection.

Research Methodology

The research design used for the study was quasi-experimental design. The sample consisted of 40 rural high school students belonging to 14-16 years. The study was conducted in rural high schools of Mangalore and the subjects were selected through

The Author is Lecturer, BMCHRC, College of Nursing, Jaipur.

simple random sampling technique. The investigator after obtaining BLS certification from a reputed institute conducted the data collection. The tools for the data collection were structured knowledge questionnaire & observation check list. The content validity was established by 9 experts. The reliability of the structured questionnaire was computed by split half method and found to be 0.8 and observational check list by inter-rater reliability and found to be 0.82. The pilot study was conducted on five samples selected randomly. The structured questionnaire on BLS consisted of meaning goal of BLS, procedure of BLS and post resuscitation complication observation checklist consisted of assessment phase and performance phase. The pre-test was conducted on the first day followed by PTP and post-test was conducted on day 8.

Results

Data analysis revealed that majority of the sample (23, 57.5%) were in the age group of 14-15 years and 17 (42.5%) in the age group of 15-16 years; 20 (50%) were males and 20 (50%) were females; 34 (85%) were not exposed to any information on BLS. The mean post-test knowledge score (74.92%) was found to be significantly higher than the mean pre-test knowledge score (27.03%) (t_{cal} value = 31.019, $p < 0.05$). Similarly the mean post-test practice score (69.50%) was found to be significantly higher than the mean pre-test practice score (18.11%). (t_{cal} value = 30.929, $p < 0.05$). The coefficient of correlation between the pre-test knowledge and practice and post-test knowledge and practice were

($r = -0.203$, $r = -0.021$) at 0.05 level of significance indicating there is low negative correlation.

Scope of the Study

The study sought to reveal the existing knowledge and practice of high school students on BLS, and motivate the high school students to update on BLS. Further, the administration of PTP would increase the knowledge and practice on BLS.

Suggestions

- ❑ Nurses should be motivated to take keen interest in preparing different teaching strategies suitable for the schools as well as community on BLS.
- ❑ Using different teaching strategies would help in imparting knowledge and skill to the students and public on BLS
- ❑ Awareness campaigns can be conducted on regular basis with emphasis on basic life support.
- ❑ BLS competency should be included in the orientation programme for the new graduates.
- ❑ In-service education can be planned for the nurses to keep them updated with latest guidelines on BLS; also there should be renewal of BLS competency at least twice a year.
- ❑ Periodical evaluation should be conducted by the nursing superintendent to ensure that standard of CPR competency is maintained.
- ❑ Ongoing school health programmes can be conducted for high school student on BLS.
- ❑ BLS should be included in the general education so that students can attain

competency on BLS.

Recommendations

It is recommended that a similar study can be replicated (i) on a larger sample with different demographic characteristics, (ii) an experimental study may be conducted with randomisation using video tapes, simulators and other teaching aids, (iii) using two rescuer methods on adult, pediatric basic life support. A comparative study can be carried out on knowledge of BLS among students and staff nurses.

Conclusion

The study showed that majority (35, 87.5%) of the students had inadequate knowledge and 40 (100%) had poor practice. The PTP facilitated them to update their knowledge and practice related to BLS. Hence the PTP was an effective teaching strategy to improve the knowledge and practice of sample on BLS.

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