



## A STUDY TO ASSESS THE EFFECTIVENESS OF STRUCTURED TEACHING PROGRAMME ON KNOWLEDGE AND SKILLS REGARDING BASIC LIFE SUPPORT AMONG HEALTH CARE PERSONNEL OF A SELECTED TERTIARY CARE HOSPITAL

### Medical Surgical Nursing

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### ABSTRACT

Basic Life Support (BLS) is the cornerstone of emergency cardiovascular care and forms the first line of intervention in cases of cardiac arrest, respiratory arrest, choking, drowning, trauma, and other life-threatening emergencies. Effective implementation of BLS significantly improves patient survival and neurological outcomes. Healthcare personnel are expected to possess adequate theoretical knowledge and practical competency in BLS to respond effectively during emergencies. However, several studies have demonstrated deficiencies in BLS knowledge and skills among healthcare workers, emphasizing the need for structured educational interventions. The present study was undertaken to assess the effectiveness of a Structured Teaching Programme (STP) on knowledge and skills regarding Basic Life Support among healthcare personnel of a tertiary care hospital.

### KEYWORDS

Knowledge, Skill, Basic Life Support, Structured Teaching Programme

#### INTRODUCTION

Cardiac arrest remains a major public health concern worldwide. According to the American Heart Association (AHA), immediate recognition of cardiac arrest, activation of emergency response systems, early cardiopulmonary resuscitation (CPR), rapid defibrillation, and advanced life support significantly improve survival outcomes.

Healthcare personnel frequently encounter emergency situations requiring prompt initiation of BLS. Inadequate knowledge, delayed recognition of cardiac arrest, improper chest compression technique, and poor adherence to current guidelines adversely affect patient outcomes.

Evidence suggests that knowledge and psychomotor skills related to CPR deteriorate within six to twelve months following training. Therefore, regular competency-based training and reinforcement are necessary to maintain proficiency.

Considering the critical role of healthcare personnel in emergency care delivery, this study evaluated the effectiveness of a structured educational intervention designed according to contemporary American Heart Association BLS guidelines.

#### Need for the Study

Cardiovascular diseases account for approximately one-third of global mortality. Out-of-hospital and in-hospital cardiac arrests continue to be associated with high mortality despite advances in healthcare.

Several studies conducted among nurses, medical students, nursing students, interns, and allied healthcare professionals have reported inadequate knowledge and poor practical performance of BLS skills. Lack of confidence and infrequent exposure to emergency situations further contribute to skill deterioration.

Healthcare institutions must ensure that personnel are adequately trained and periodically reassessed to maintain competency. The findings of the present study may contribute toward strengthening BLS education programmes within Armed Forces Medical Services institutions and other healthcare organizations.

#### Objectives

The study was conducted with the following objectives:

1. To assess pre-test knowledge regarding Basic Life Support.
2. To determine pre-test skills regarding Basic Life Support.

3. To evaluate post-test knowledge regarding Basic Life Support.
4. To evaluate post-test skills regarding Basic Life Support.

#### Methodology

Research Approach: Quantitative evaluative approach.

Research Design: Quasi-experimental one-group pre-test post-test design.

#### Population

Healthcare personnel undergoing training in the tertiary care hospital. Sample

#### Sample Size

100 participants.

#### Sampling Technique

Convenient sampling technique.

#### Research Instruments

**Tool I:** Structured questionnaire assessing knowledge regarding BLS.

**Tool II:** Skill assessment checklist evaluating practical performance of BLS.

#### Intervention

Structured Teaching Programme comprising:

- Classroom lectures
- PowerPoint presentations
- Demonstrations
- Hands-on simulation
- Practical skill assessment

#### Demographic profile of participants

**Age Distribution:** 20–29 years: 100% of participants.

#### Educational Qualification

| Qualification        | Percentage |
|----------------------|------------|
| Intermediate/Diploma | 65%        |
| Graduate             | 29%        |
| Professional/Honours | 6%         |

#### Previous BLS Training

| Previous Course | Percentage |
|-----------------|------------|
| Yes             | 55%        |
| No              | 45%        |

## Major Findings

### Improvement in Knowledge

Significant improvements were observed in:

- Location of chest compressions (75% to 97%)
- Pulse assessment (90% to 97%)
- Role switching during CPR (70% to 92%)
- Pulse-check timing (57% to 87%)
- BLS sequence (75% to 87%)

Several parameters demonstrated statistically significant improvement ( $p < 0.05$ ).

### Improvement in Skills

Practical skills improved considerably following simulation-based training.

Participants demonstrated improved competency in:

- Scene safety assessment
- Recognition of cardiac arrest
- Pulse assessment
- CPR initiation
- Rescue breathing
- AED utilization
- Continuation of CPR

The findings support the effectiveness of hands-on simulation in developing psychomotor competency.

## DISCUSSION

The present study demonstrated substantial improvement in both theoretical knowledge and practical competency following the structured teaching programme.

The findings are consistent with previous national and international studies that reported significant improvement in BLS competency following structured educational interventions. The results reinforce the importance of periodic training and retraining for healthcare personnel to ensure retention of life-saving skills.

Simulation-based teaching enabled participants to practice critical life-saving skills in a controlled environment, improving confidence and competence. These findings reinforce current recommendations from international resuscitation councils advocating frequent retraining and competency assessment.

## Recommendations

1. Mandatory BLS certification for all healthcare personnel.
2. Annual refresher courses and recertification.
3. Incorporation of simulation-based learning into routine training schedules.
4. Regular mock codes and resuscitation drills.
5. Establishment of hospital-wide competency assessment programmes.
6. Multicentric AFMS studies with larger sample sizes.
7. Evaluation of long-term knowledge and skill retention following training.

## CONCLUSION

The structured teaching programme was effective in significantly improving knowledge and practical skills regarding Basic Life Support among healthcare personnel.

The study highlights the importance of regular educational interventions and simulation-based training in maintaining competency for emergency response. Improved BLS proficiency among healthcare personnel can contribute to reduced mortality and better patient outcomes in cardiac arrest situations.

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