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Enhancing Community Safety Through Basic Life Support (Bls) Training: A Study at a Multi-Specialty Hospital, Kochi

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ABSTRACT

Medical emergencies, especially out-of-hospital cardiac arrests (OHCA), necessitate a swift response. Basic Life Support (BLS) training equips everyday individuals to take immediate action during such crises, which can be crucial in saving lives prior to the arrival of professional medical assistance. This research, carried out at a multi-specialty hospital in Kochi, assesses the effectiveness of the “Befirst” training program, which focuses on community-based BLS education. The results reveal an increase in awareness, confidence, and readiness among participants, while also identifying areas that require enhancement in the training process. These findings advocate for the incorporation of BLS training into public health frameworks and emphasize the need for improved training resources and increased frequency of sessions.

Keywords: Basic Life Support (BLS), CPR, Emergency Preparedness, Community Training, Multi-Speciality Hospital, “Befirst” Program

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INTRODUCTION

Medical emergencies can arise unexpectedly in various everyday settings, such as homes, schools, and public areas. In many instances, prompt action by bystanders can significantly influence the outcome, potentially determining life or death. However, a lack of awareness, training, and self-assurance often impedes effective responses from bystanders. The "Befirst" initiative, launched by a multi-specialty hospital in Kochi, seeks to fill this void by providing education and training to community members on Basic Life Support (BLS) techniques, which encompass CPR, choking management, and the use of AEDs. This study examines the results of the Befirst training program and suggests practical measures to enhance emergency preparedness within the community.

STATEMENT OF THE PROBLEM:

Even with emergency services accessible, the lack of prompt intervention from bystanders still leads to avoidable deaths. There is a notable deficiency in the community's ability to respond adequately to medical emergencies, primarily due to inadequate training and a lack of awareness. This research explores how organized Basic Life Support (BLS) training programs, like “Befirst”, can improve community responsiveness and preparedness for emergencies.

OBJECTIVES OF THE STUDY:

1. To identify how "Befirst" training impacts communities.
2. To assess awareness levels enhanced through training.
3. To recommend strategies for improving BLS training programs.

REVIEW OF LITERATURE

1. **CPR Training in Schools – Baldi et al. (2020):**

Baldi and colleagues conducted a comprehensive study in European schools to evaluate the impact of CPR training among students. Their research found that students who received CPR training showed significantly improved theoretical knowledge, heightened confidence, and a stronger willingness to perform CPR during emergencies. The findings underscore the importance of incorporating Basic Life Support (BLS) education into school curriculums from an early age. By equipping young individuals with life-saving skills, this initiative has the potential to create a new generation of proactive bystanders who can improve survival rates in out-of-hospital cardiac arrests (OHCA). The authors strongly advocate for policy-level changes to make CPR training a mandatory part of school education.

2. **Hands-Only CPR in Communities – Bobrow et al. (2011):**

Bobrow et al. explored the effect of simplified CPR techniques—specifically hands-only CPR—on bystander response rates in community settings. The study, conducted in Arizona, found that teaching laypersons chest compression-only CPR led to increased participation in emergency situations and significantly improved survival rates for OHCA patients. Simplifying the training by removing the mouth-to-mouth component reduced hesitation and fear among non-medical individuals. This approach made CPR more approachable and acceptable, particularly in high-stress situations. The findings have since influenced public CPR campaigns worldwide and support the idea that even brief, simplified training can have a large-scale public health impact.

3. **Incorporating AED in BLS Courses – Wik et al. (2002):**

Wik and colleagues examined the effects of including Automated External Defibrillator (AED) training in BLS programs. Their research showed that participants trained to use AEDs were more confident and effective during real-life emergencies. This training led to quicker defibrillation and better coordination in response efforts, both of which contributed to significantly improved survival outcomes. The study highlights the importance of pairing CPR with AED training to ensure that first responders can fully utilize all available resources during cardiac arrests. AED training not only enhances technical skills but also boosts psychological readiness among responders.

4. **Refresher Training Improves Skill Retention – Yeung et al. (2017):**

Yeung et al. conducted a systematic review to evaluate the long-term effectiveness of different CPR training schedules. They found that shorter, more frequent refresher courses were substantially more effective at maintaining BLS and CPR proficiency over time, compared to traditional one-time training or annual re-certifications. Even low-dose, high-frequency sessions—lasting just minutes—proved beneficial in reinforcing both the theoretical knowledge and practical skills required during emergencies. This finding is particularly useful for designing training for healthcare professionals, but it also supports community-level strategies for maintaining widespread CPR competency.

RESEARCH METHODOLOGY

RESEARCH DESIGN: Descriptive research

SAMPLING METHOD: simple random sampling

SAMPLE SIZE: 169

METHODS OF DATA COLLECTION: Structured questionnaire

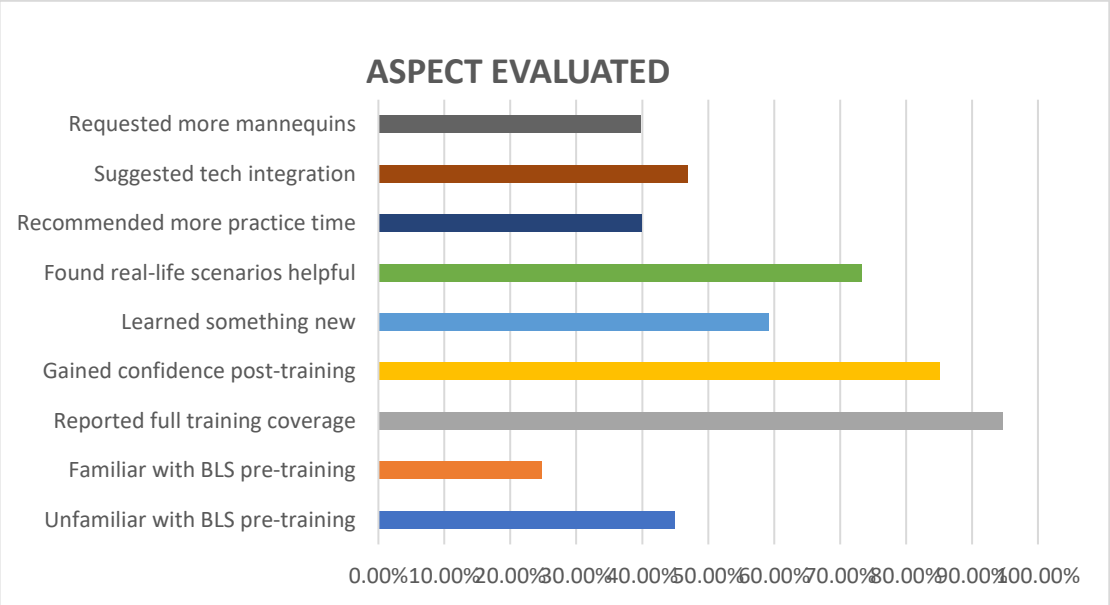
ANALYSIS: simple percentage analysis

ANALYSIS

Table showing the aspects evaluated in the study

ASPECT EVALUATED	RESULT
Unfamiliar with BLS pre-training	44.97%
Familiar with BLS pre-training	24.85%
Reported full training coverage	94.67%
Gained confidence post-training	85.20%
Learned something new	59.17%
Found real-life scenarios helpful	73.37%
Recommended more practice time	40.00%
Suggested tech integration	47.00%
Requested more mannequins	39.76%

Chart showing the aspects evaluated in the study



FINDINGS

- 44.97% of the community were not familiar with befirst before the training.
- 59.17% has reported that they have learned something new during the training.
- 85.20% reported that they are confident in performing befirst in real life situations through the training.
- 39.76% of community indicates a recommendation to enhance the quantity of mannequins.
- A recommendation of 40%indicates the need to enhance the duration of hands-on practice.
- A total of 47% recommend incorporating video classes and presentations into the training program.

SUGGESTIONS

- Increase time for hands-on practice to improve skill retention.
- Use high-fidelity mannequins with real-time feedback on compression depth and rate.
- Conduct quarterly or biannual refresher sessions instead of one-time training.
- Implement post-training assessments after a few months to track retention.
- Introduce virtual reality (VR) or augmented reality (AR) simulations for immersive learning.
- Offer step-by-step video guides for post-training reference.
- Work with government to make befirst training mandatory in schools and workplaces.
- Promote public awareness campaigns about the importance of CPR and AED use.

CONCLUSION

Basic Life Support (BLS) training plays a critical role in equipping individuals with essential life-saving skills, including cardiopulmonary resuscitation (CPR) and the use of automated external defibrillators (AEDs). This study highlights the importance, impact, and areas for improvement in BLS training, based on participant feedback and research findings.

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