

A STUDY ON 999 CALLER ACCEPTANCE FOR ONLINE CPR TREATMENT BY MEDICAL COORDINATING CENTRE (MECC) AT TERTIARY HOSPITAL: A NARRATIVE REVIEW

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INTRODUCTION: Cardiac arrest is a sudden loss of heart function and the leading cause of out-of-hospital deaths worldwide. Studies have shown that immediate bystander cardiopulmonary resuscitation (CPR) greatly increases the chances of survival, as brain damage can occur within minutes without oxygen. One way to deliver bystander CPR is with dispatcher assistance, whereby the dispatcher provides instructions for the caller to perform CPR until revival or emergency medical services arrive.

AIM: This research aims to assess the rates of caller acceptance to perform CPR with dispatcher instructions, as well as determine the factors impeding caller acceptance rates.

METHODOLOGY: Databases such as Google Scholar, OVID Medline, PubMed, Embase, and Scopus were utilized to perform this review. Search words related to 'online CPR', 'dispatcher-assisted CPR', and 'caller acceptance for online CPR' were used. All articles after 1985 reporting on caller acceptance to perform CPR for out-of-hospital cardiac arrests were selected.

RESULTS: In total, 12 articles were reviewed. Caller acceptance rates ranged from 89% to 5.2% across all the studies, demonstrating high variability in caller acceptance rates. The main factors found to hinder bystander response were the caller thinking that the patient has already passed, the inability to perform CPR due to the caller being in a remote location from the patient or having physical limitations, the bystander already knowing how to administer CPR, or the caller having emotional distress.

CONCLUSION: Dispatcher-assisted telephone CPR significantly increases bystander response rates, improving patient outcomes. Standardized protocols are essential to address challenges like caller rejection and inconsistent instruction. While caller acceptance rates have been on the rise in recent years, future research needs to be conducted focusing on overcoming the barriers to bystander responses for online CPR.

Keywords: online CPR, caller acceptance, out-of-hospital cardiac arrests