Effects of Mock Code Blue Simulations on Interdisciplinary Team Response and Confidence

Jillian Harper  
Fort Hays State University, jeharper2@mail.fhsu.edu

Christine Hober  
Fort Hays State University, clhober@fhsu.edu

Follow this and additional works at: https://scholars.fhsu.edu/sacad_2020

Recommended Citation  
https://scholars.fhsu.edu/sacad_2020/30

This Poster is brought to you for free and open access by the John Heinrichs Scholarly and Creative Activities Day (SACAD) at FHSU Scholars Repository. It has been accepted for inclusion in 2020 SACAD Entrants by an authorized administrator of FHSU Scholars Repository.
Effects of Mock Code Blue Simulations on Interdisciplinary Team Response and Confidence

Jillian Harper, FHNS & Lori Leiker, FHNS
Fort Hays State University, Department of Nursing

Abstract
Objective: To identify the relationship between performing mock code blue simulations and overall interdisciplinary response time and confidence.

Design: Quasi-Experimental, Descriptive
Setting: Hays Medical Center
Participants: Health Care Providers
Results/Conclusion: Pending results and data collection.

Introduction
Cardiopulmonary resuscitation (CPR) taught through traditional basic life support (BLS) training by the American Heart Association provides a foundation of skills for the interdisciplinary team when responding to a code blue. Despite this, the foundational skills learned in these classes can deteriorate within approximately 3 months due to infrequent use (Clarke et al., 2016). Furthermore, the average survival rate for a patient who experiences cardiac arrest during a hospital stay is 16% (Huseman, 2012). By implementing mock code blue simulations, interdisciplinary team response time and confidence level may increase (Herbers & Heaser, 2016; Lafranchi, 2013).

Purpose: The purpose of this study is to determine whether the implementation of mock code blue simulations can increase interdisciplinary team response and confidence during a code blue in acute hospital settings.

Key Terms
Mock Code Blue Simulation: A learning environment where code blue (cardiac arrest) emergency situations can be recreated and skills may be practiced without risk of patient injury (Lafranchi, 2013; McCoy et al., 2018).

Interdisciplinary Team: The interdisciplinary team includes health care providers who initiate the sequence and begin CPR if needed, a recorder, a team member responsible for gathering all necessary supplies, and others who help as needed (Lafranchi, 2013).

Framework
Benner’s (1982) From Novice to Expert model describes the growth of the interdisciplinary team from novice to expert following mock code blue simulations.

Methodology
Research Design/Interventions: Quasi-Experimental, Descriptive
Independent Variable: mock code blue simulation implementation
Dependent Variable: interdisciplinary team response time and confidence level

Proposed Research Question: How does implementing mock code blue simulations affect interdisciplinary team response time and confidence during a 3-month period?

Literature Sources
According to Lafranchi (2013) mock code blue simulations provided staff members with an opportunity to practice critical thinking, hone essential skills, and practice communication, without concern of failure. These life-like simulations allowed healthcare providers to become aware of their responsibilities, roles, expectations, capabilities, and limitations which, therefore, increased code blue response times and healthcare providers’ confidence. In an article published in the Journal for Nurses in Staff Development, current CPR training by the American Heart Association only occurs every 2 years which leads to the potential for decrease in skills retention among the interdisciplinary team members (Huseman, 2012). Implementing mock code blue simulations allows for the potential of less anxiety as skills are practiced on a mannequin in a controlled environment, as opposed to an emergency situation with a patient (Huseman, 2012).

Sample and Setting: The target sample includes healthcare professionals at Hays Medical Center.

Ethical Considerations
Seeking IRB full review from the Hays Medical Center, the Fort Hays State Department of Nursing, and Fort Hays State University.

Results/Findings
Projected Data Analysis Method
A dependent t-test will be used to analyze the response times both before and after initiating mock code blue simulation experiences. To analyze interdisciplinary team confidence level, a survey will be administered both before and after initiating mock code blue simulations and the data will be collected on an evaluation tool to analyze both positive or negative change.

Literature Findings
According to Huseman (2012), training positively affected interdisciplinary team response. From loss of pulse to initiation of chest compressions, the response improved from 0.867 minutes to 0.214 minutes following implementation of mock code blue simulations. In addition time for defibrillation and for first dose of epinephrine improved by 30% and 23% respectively (Huseman, 2012). In another study, it was found that interdisciplinary team confidence regarding overall participation in code blue situations improved from 82% to 98.8% based on a pre- and post-survey administered to approximately 90 interdisciplinary team members (Herbers & Heaser, 2016). Another study published by McCoy et al. (2018) found that simulations increased CPR performance and decreased the response time. Comparatively, the standard CPR group’s activation time was 79.5 seconds and the simulation group was 24.7 seconds (McCoy et al., 2018).

Discussion
Implications For Nursing
If implementation of mock code blue simulations is effective in improving interdisciplinary team response times and increasing confidence levels of these individuals, then these simulations should be implemented and emphasized both at Hays Medical Center and numerous other patient care areas.

Conclusion
Pending results and data collection. Other studies have found that mock code blue simulations decrease the response time and increase health care providers confidence levels.

For future research, it is recommended this study be conducted on a larger scale in urban areas, so that these findings can be applied to a greater population.

References


FORT HAYS STATE UNIVERSITY
DEPARTMENT OF NURSING
Forward Thinking. World ready.