

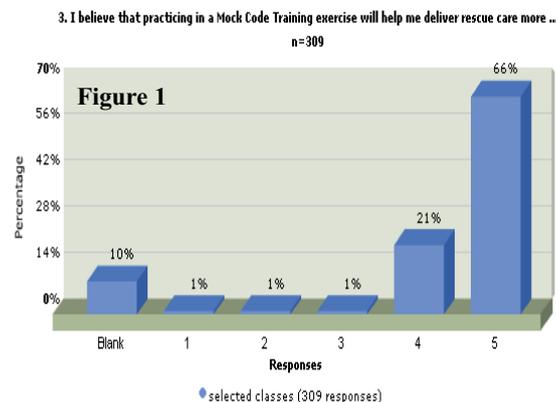
INTRODUCTION

Medical Emergency Teams (METs) are designed to provide critical care at the point of need outside ICUs. Unfortunately, time to effective management of critical situations by METs may be inhibited by lack of training for the first staff arriving at the scene (medical-surgical personnel). Early problem recognition, appropriate initial interventions, and rapid defibrillation for sudden cardiac arrest are skills medical-surgical nursing personnel need to facilitate life-saving measures. The “First 5 Minutes™” was developed for non-ICU personnel to: 1) assess and improve staff completion of key resuscitative tasks before MET arrival and 2) utilize high-fidelity simulation and cardiac arrest scenarios to facilitate learning.

Although we reference cardiac arrest in this report, the instructors used the First Five Minutes training for other related medical crisis as well. Some sample topics were: Chest Pain, PCA overdose and Mental Status Change.

METHODS

Subjects were medical-surgical and progressive-care nurses consenting to participate in our study involving responses to two simulated cardiac arrest scenarios with facilitator-led debriefing sessions after each. Data were collected on: 1) pre/post surveys to assess perceptions of simulation use for learning (n=205). See Figure 1; 2) pre/post tests to assess cognitive knowledge related to identification of crisis situations and implementation of appropriate emergency measures (n=205). 2; and 3) small group hands-on completion of selected emergency tasks in the first vs. second scenario (n=238). Simulation data were electronically obtained utilizing SimMan™ and recorded into a laptop computer with SimMan™ software.



RESULTS

The Positive perceptions related to simulation training all increased pre vs. post. The percent of those who “strongly agreed” they “felt comfortable managing patients before the arrival of the MET” doubled from 28% to 56%. Those strongly agreeing “the simulated experience would be realistic” increased from 44% to 64%. Correct answers to the test increased from 59% to 80% pre vs post (See Figure 2 for sample). The correct response to “where intubation supplies were kept” increased from 34% to 64%. Prior to training, only 45% correctly answered that defibrillator pads and not ECG leads should initially be applied to the patient. This increased to 79% after the session. The majority of nurses (71%) were aware of their ability to defibrillate without physician presence prior to training. Nevertheless, this improved to 88% after training.

There were improvements in the completion of all key resuscitative tasks from the first vs. second scenarios. 80.6% completion in scenario 2. Time to defibrillation, using the built-in AED feature of the monitor/defibrillator, improved by 38% in the second scenario (163 vs.101 seconds).

CONCLUSION

Discussion/Conclusions: Most staff attending the training sessions “strongly agreed” with statements related to a positive experience during the simulations. Participation in the simulated cardiac arrest scenarios improved staff knowledge of information related to emergency situations and completion of key tasks. The “First 5 Minutes” is an effective means of reviewing emergency response tasks and improving standardized behaviors in clinical environments. It has been effectively conducted in a variety of settings, e.g. Radiology, Clinics, and with student nurses preparing them for their clinical rotations. Retention data as well as clinical outcomes need to follow these findings.

Additional applications of the First Five Minutes concept can be developed / applied to any patient – provider interaction.

