Innovative Teaching Method in Emergency Response Education of Undergraduate Nursing Students

Disaster preparation and response has become a key component in baccalaureate nursing education. The American Association of Colleges of Nursing (2008) endorses and encourages the inclusion of disaster management education within course content. Typically, nurse educators have approached the concept of disaster response in didactic form. However, educators are now challenged to develop more effective teaching methods to educate nursing students in disaster management. According to Hutchinson et al. (2011), disaster training for prelicensure nursing students should include both didactic and simulated learning experiences. However, the problem with using a simulated disaster experience is its feasibility, which typically requires significant resources and faculty involvement for its design and implementation.

Tabletop methodology (TTM) is not an uncommon training strategy within organizations such as the Centers for Disease Control and Prevention, the American Red Cross, and the Medical Reserve Corps. A tabletop design involves an evolving hypothetical scenario of a disease outbreak or disaster, with facilitated group discussions and some level of collective decision making by participants. The unfolding scenario exercises the internal communication and coordination among disciplines within health departments or organizations, as well as the communication and coordination with partner agencies, such as health care facilities and emergency medical service agencies (Dausey, Buehler, & Lurie, 2007).

Method

The goal of this learning activity was to provide baccalaureate undergraduate nursing students with an opportunity to participate in and evaluate a simulated emergency response to a hepatitis A outbreak using TTM. After institutional review approval, 12 senior nursing students, who were enrolled in a community health course, participated in the exercise during one of their clinical days. A nursing faculty member, who is a public health nurse and experienced in using TTM, facilitated the activity. Each participant volunteered for a role in the exercise (e.g., incident commander, public information officer). The TTM followed a recent 2-hour class lecture on disaster preparedness and emergency management. Prior to the lecture and TTM activity, students were invited via e-mail to participate in a survey using Qualtrics software. The postsimulation survey was administered in a similar fashion after completion of the activity. The focus of the presimulation survey was to assess baseline understanding, and the post-simulation survey assessed knowledge gains related to disaster preparedness and management.

Survey items included constructs such as communicable disease response, role of the public health nurse in an emergency, and the disaster management cycle. During the face-to-face, 2-hour TTM, participants were provided with several chronological segments of a hypothetical hepatitis A outbreak located at their college via PowerPoint presentation. The unfolding case study was separated by a series of discussion points, which were facilitated by the nursing faculty member, and students were required to collaboratively respond to the evolving scenario at specific time points.

Results and Reactions

Participant self-reported knowledge was measured using a 17-item online survey that was developed by the nursing faculty (C.C.C.-S., C.E.T.). The individual participant reactions to the TTM were captured by an open-ended written paper evaluation that was completed immediately following the activity. Participant reactions elicited from these evaluations after the TTM included an overwhelmingly positive response and satisfaction with this learning method. Responses included, “I would have liked to have known what a table top activity was before the activity,” “I wished we had the PowerPoint slides from class to refer to,” “forced me to think about things I would not have considered,” and “I wished this method was used in other [nursing] classes.”

Postsimulation survey results demonstrated an increase in all 17 items. A paired t test analysis revealed significant knowledge gains ($t = 4.77, df = 19, p = 0.000$) after this educational activity. The preliminary data analysis suggests that TTP is an effective teaching strategy for developing emergency management skills among nursing students.

The study findings support TTM as a learning activity that promotes collaboration among students in problem solving and application of essential disaster management skills, and that even a brief TTM intervention produced significant improvements in individual student knowledge of disaster preparedness and emergency management. The limitations of this study include using a survey tool that had not been tested for reliability or validity, and a small homogenous sample.

This type of learning activity was not costly in terms of personnel, time, space, or technology. In addition, the versatility of the TTM has the potential for broad application in other courses and events that require interdisciplinary collaboration.

References


Cathleen C. Colleran-Santos, DNP, RN
csantos0706@curry.edu

Coleen E. Toronto, MSN, RN
Curtis College

The authors have not disclosed any potential conflicts of interest, financial or otherwise. doi:10.3928/01484834-20140722-11