

It's in the Bag: Personal Emergency Preparedness Training for Student Nurse Practitioners

DIANE K. PASTOR

Abstract

Background: Recent severe weather events and terrorist activities in the northeastern United States have highlighted the need for citizens to be prepared for sudden evacuation or to face potentially dangerous challenges in place. Evidence suggests that little is known about this content in graduate advanced practice nursing curricula.

Methods: Adult Health/Gerontology NP part-time graduate nursing students enrolled at a large northeastern U.S. academic medical center school of nursing were asked to access and apply evidence-based resources to develop a personal emergency kit to use for a sudden evacuation in case of a disaster in their communities. Guidelines included that the kit should be: (1) portable, (2) lightweight, (3) waterproof, and (4) developed with cost information reported. Students were expected to submit a narrative report about how evidence was located and used, the estimated costs of the kit's contents, and a final digital color photograph of the emergency kit. They were also asked to respond to four open-ended questions about this learning experience.

Results: Ninety-six percent of the sample ($n = 29$) was female with a mean age of 33 years, and mean duration of 9 years of practice as RNs. Mean total cost of the emergency kit was \$138.00. Using government and commercial websites, students included essential items in their kits. Photographs illustrating student examples of emergency kits were also submitted. Qualitative content analyses of open-ended questions identified three themes voiced by student participants.

Conclusions: Results of this educational experience can be translated into action by community clinicians, as they teach their clients about being prepared to either evacuate during a disaster, or to remain safely in place. The summative kit contents can be used as a template for preparing at home for emergency events.

Recent severe weather events and terrorist activities in the northeastern United States have highlighted the need for citizens to be prepared for sudden evacuation or to face potentially dangerous challenges in place. Preparing health providers with skills in comprehensive emergency preparedness is essential to help community residents to deal with these challenges. Primary care clinicians should be able to establish priorities and assist clients to be prepared for emergencies. This preparation should include individual preparedness centered on making an emergency kit for potential evacuation or safety in place.

How can primary care nurse practitioners assist their patients to be better prepared at home for emergency events or disasters? Nurses today must meet the challenges of responding to several types of potential disasters: natural, manmade, and technological disasters. In the United States, disaster content is included in the National Council Licensure Examination (N-CLEX) (National Council of State Boards of Nursing, 2006), but evidence suggests that little time is spent in teaching or learning this content during undergraduate nursing education programs. Little is known about educational preparation about emergency preparedness in graduate curricula for advanced practice nurses (Wiener, 2006). Therefore, this paper reports the results of an innovative course assignment for nurse practitioner (NP) students who were asked to prepare evidence-based emergency kits for personal emergency preparedness. Can the results of an innovative nurse practitioner (NP) student assignment inform primary care clinicians to assist their patients to be prepared at home for emergency events?

Personal Emergency Preparedness

Disaster education and preparedness experts have suggested field exercises to prepare nurses at all levels for sustained learning (Duarte & Haynes, 2005). Scott, Ross, Tueber & Seymore (2013) initiated an emergency preparedness training course designed to improve provider knowledge and skill in saving lives in a disaster. Twenty seven Veterans Hospital Administration health providers comprised the sample. Health providers were instructed in the need to provide organized and standardized responses to emergencies, and they practiced these skills using simulation. Results showed that this one-day course enhanced provider knowledge and skills in meeting patient care

needs during a simulated disaster. Emergency preparedness includes being prepared at three levels: (1) personal preparedness, (2) healthcare agency/institution preparedness, and (3) community preparedness. Community clinicians' roles include educating patients in emergency situations and reviewing the importance of current and reliable emergency patient contacts (Duchene, 2011). Communities, healthcare providers, and individuals/families all have been urged to take a more comprehensive look at their readiness for emergency events (Ross & Bing, 2007). In terms of education for personal preparedness, clinicians should confirm that their patients have a disaster survival kit (Ruder, 2012).

Several studies have identified the nurse's role in emergency management efforts. Jagim (2007) investigated the nurse's role in emergency preparedness training and planning and advised that nurses keep abreast of new resources in disaster planning and implementation. Gebbie and Qureshi (2002) identified core disaster competencies for nurses that included identifying and locating an agency's emergency response plan. Cole (2005) identified nurse practitioners as important sources of information in helping develop disaster plans for families and communities. Nurse practitioners can assist clients in personal disaster preparedness by discussing emergency supplies and plans. Pontus (2006) presented an overview of the disaster preparedness program developed by the Massachusetts Nurses Association and encouraged nurses to develop both a personal and a family disaster plan. Perhaps Spellman (2006, p. 1) said it best: "As NPs continuously develop their role in primary health care, it is essential that they also offer their unique talents, skills and abilities to... integrate their abilities into emergency and disaster response plans."

Methods

Recently, the northeastern U.S. region experienced both a hurricane (Super Storm Sandy on October 29, 2012) and a blizzard (Winter Storm Nemo on February 9, 2013). At a large northeastern medical center's school of nursing, graduate NP students were reporting to their faculty mentors that many local residents were asking primary care practitioners how to be better prepared for weather-related disasters. The NP students noted that having an evidence-based resource to use as a teaching tool in clinical practice would be beneficial for their patients. As graduate course coordinator of

a clinical course for NP students during spring semester 2013, I decided that a timely project was to have students find evidence-based resources to create a personal emergency kit, to be used as a teaching project with their patients. The project reported here investigated whether the use of an innovative self-directed learning strategy would promote knowledge development for Adult Health/Gerontology student NPs in the area of personal emergency preparedness. If it was possible to promote knowledge development with NP students who were being educated to work in primary care settings, it was hoped that the results of this experience might inform the work of primary care NP clinicians, to provide an evidence base from which community clinicians could teach their patients about personal emergency preparedness.

This self-directed learning assignment was developed as part of the final semester for graduating NP students attending a hybrid graduate program in the northeastern U.S. during spring 2013. This sample consisted of twenty nine (29) Adult Health/Gerontological NP part-time graduate nursing students who were enrolled in their final clinical semester. In self-directed learning, learners take the initiative to diagnose their learning needs, identify resources for learning, select and then implement learning strategies. Students were asked to access and apply evidence-based resources to develop an emergency kit for one person to use for a sudden evacuation in case of a disaster in their communities. They were given several guidelines so that the kit should be (1) portable, (2) lightweight, (3) waterproof, and (4) developed with cost information reported. Students were expected to submit a narrative report about how they searched for evidence, how evidence was located and used, the estimated costs of the kit's contents, and a final digital color photograph of the emergency kit. They were also asked to respond to four open-ended questions about this learning experience. Students submitted this assignment in the university-developed electronic learning management system. A copy of the assignment and grading rubric is included in *Table 1*.

Table 1: Emergency Kit Assignment and Grading Rubric

<ul style="list-style-type: none"> Your assignment is to build your own personal emergency kit to prepare for a disaster, including: (1) a list of what is included, (contents) (2) why it is included (your rationale, based on evidence cited), (3) the reference(s) used to build your kit in APA 6th ed. format, and (4) the cost of each item and the total cost for your kit. Please submit this assignment, along with a photograph of your completed kit, according the guidelines included in our electronic course site for this course. Please also answer the four (4) questions in the electronic course site about this experience. 	
Grading Rubric	
Use of a variety of evidence based resources	<i>2 points</i>
Rationale supports kit contents	<i>2 points</i>
Cost data included	<i>1 point</i>
Narrative synthesizes evidence coherently	<i>2 points</i>
Photograph clearly documents kit contents	<i>2 points</i>
APA references included	<i>1 point</i>
TOTAL	<u> </u> /10 points

Results

Ninety-six percent of the sample (n=29) was female with a mean age of 33 years, and mean duration of 9 years of practice as RNs. Most students were currently employed as professional registered nurses in inpatient settings while attending graduate school. In this program, students generally spent 3 years pursuing graduate nursing education on a part-time basis. For this assignment, the mean total cost of the emergency kit contents was \$138.00. Using government and commercial websites, students included essential items in their kits. A listing of the websites used as resources to construct the kits is included in *Table 2*.

Table 2: Websites Used to Construct Emergency Kits

American Red Cross: www.redcross.org/
Build A Kit: www.ready.gov/build-a-kit/
Consumer Reports: www.consumerreports.org
Department of Motor Vehicles (DMV): www.dmv.org/
Emergency Nurses Association (ENA): www.ena.org/
Federal Emergency Management Agency (FEMA): http://www.fema.gov/
New York City Office of Emergency Management: http://www.nyc.gov/html/oem/html/get_prepared/supplies
New York State Division of Homeland Security and Emergency Services (OEM): www.dhSES.ny.gov/oem
U.S. Department of Health and Human Services, Centers for Disease Control and Prevention (CDC): www.cdc.gov/
U.S. Department of Homeland Security: www.dhs.gov/

The summative composition of these kits can be found in *Table 3*.

Table 3: Personal Emergency Kit Contents

Drinking water (1 gallon per person per day)
Ready-to-eat nonperishable lightweight foods
Cash or credit cards (although only two students found evidence suggesting approximately \$100 per person for three days)
Cell phone with solar charger
Sleeping bag or blanket
Tools: manual can opener; battery operated flashlight and radio; extra batteries whistle; face mask and duct tape; a local map; trash bag; matches/lighter/candles
First aid kit with one week supply of medications
Change of clothing
Personal hygiene items (travel size)
Important documents, including identification and medical records

NOTE: Several students suggested adapting the kit contents to the special needs of special populations (disabled, pediatrics, and geriatrics), while others included kit contents for their pets.

Photographs illustrating several student examples of emergency kits can be found in *Figure 1*.

Figure 1:



Qualitative content analyses of the four open-ended questions included in this assignment identified three themes voiced by student participants: (1) a sense of vulnerability; (2) learning to help clients with personal emergency preparedness; and (3) a valuable and unique learning experience. The principal investigator then met with several students as key informants after these themes were developed, to verify the validity of our findings (member checking).

Theme #1: A Sense of Vulnerability

Students reported their awareness of being vulnerable, both personally and professionally in relation to risks for potential disaster. Many of them lived locally and experienced the devastating effects of severe weather recently. Some had become

displaced due to weather related losses and were struggling with personal, school, and employment responsibilities. They had also learned that many of their family members and neighbors had experienced harm during the weather events. Comments included these:

Given the recent weather emergencies in the tri-state area, it is important to know what you need for a disaster, and where to access information.

If you have to leave and evacuate as we did (during Super Storm Sandy), know where you can go. Set up a plan with friends or family in case of emergency, or know where your evacuation/shelter is.

During Hurricane Sandy our radio was our lifeline to information since there was no electricity. It seems that everything we own uses electricity.

Theme #2: Learning to Help Clients with Personal Emergency Preparedness

Students reported they gained valuable information for teaching preparedness as NPs in community and primary care settings. They believed the assignment encouraged them to access and evaluate useful data to construct a template of a personal emergency kit. They commented:

I will admit that when given this assignment I felt it was busy work but after doing the research and creating this kit I have a much different opinion. I felt it was a worthwhile assignment and will definitely help me guide my patients in their emergency planning.

As NPs in primary care settings, we should teach prevention including disaster preparedness. Something as simple as providing examples or photos of what can be included in a kit can encourage patients to plan for emergencies.

It is of a great value to have an emergency kit in an NP practice to educate patients on what to do and what to have in a kit in case there is a disaster because the first 48 hours of any disaster are the most crucial.

Theme #3: A Valuable and Unique Learning Experience

Students also wrote about what they learned in completing this unique evidence-based self-directed learning project:

The experience of putting this kit together was beneficial. By having to do it myself, I can see the value of teaching my patients how to do this for themselves.

My family and I had a great time putting our new and improved kit together. My little one saw it more as an adventure than a crisis. Perfect!

I never thought about this, because as an RN working in a hospital I have access to unlimited supplies. But in my primary care work site, resources are limited for patients and families.

Once I started preparing the bag, I realized I was inadequately prepared during the previous disasters!

Conclusion

Primary care NPs have strengths in care planning, relationship building, taking a holistic approach to care and acting as role models. The findings of this project can be used by to educate community clients about personal emergency preparedness. The NP students who constructed evidence-based personal emergency kits have supplied a template for use by home clinicians in practice, to teach clients how to be better prepared to either evacuate or to shelter in place during emergencies. These findings therefore add to the repertoire of skills for home care community practitioners to promote personal safety and quality of life for their patients. The need for disaster preparedness is a reality. Extreme weather events and potential terrorist activities are continuing threats to personal and community wellbeing. While many rely on the thought that government and public health agencies will take care of us, it may be two to three days before agencies can mobilize response in disasters (Spain, Clements, DeRanieri & Holt, 2012). Individuals must be prepared to take care of themselves either by remaining in place with provisions or by evacuating and taking emergency provisions with them.

About the Author: Diane K. Pastor, PhD, MBA, NP-C is Associate Professor of Nursing at the University of North Carolina Wilmington, College of Health and Human Services. Contact Dr. Pastor at pastord@uncw.edu

Keywords: emergency preparedness; emergency kits; community care

References

Cole, F. (2005). The role of the nurse practitioner in disaster planning and response.

- Nursing Clinics of North America*, 40, 511-521. doi: S0029646505000216
- Duarte, V. & Haynes, L.C. (2006). Disaster preparedness: "As common as CPR".
Clinical Simulation in Nursing Education, 2, e53-e57. doi: S1876139909004526
- Duchene, M. (2011). Emergency management in action: Surviving a flood. *Home Healthcare Nurse*, 29(6), 383-387. doi: 10.1097/NHH.0b013e31821b72b8
- Gebbie, K.M.& Quershi, K. (2002). Emergency and disaster preparedness: Core Competencies for nurses. *American Journal of Nursing*, 102, 46-51. doi: 00000446-200201000-00023
- Jagim, M. (2007). Emergency preparedness response: building infrastructure. *Journal of Emergency Nursing*, 33(6), 567-570. doi: 10.1016/j.jen.2007.08.013
- Pontus, C. (2006). Disaster preparedness: an all-hazards approach for nurses. *Massachusetts Nurse*, 77(8), 7. Retrieved from http://www.researchgate.net/journal/0163-0784_The_Massachusetts_nurse
- Ross, K.L., & Bing, C.M. (2007). Emergency management: Expanding the disaster plan. *Home Healthcare Nurse*, 25(6), 370-377. doi: 10.1097/01.NHH.0000277684.58551.d4
- Ruder, S. (2012). Emergency preparation for home healthcare providers. *Home Healthcare Nurse*, 30(6), 355-362. doi: 10.1097/NHH.0b013e3182348a37
- Scott, L.A., Ross, T., Tueber, J. & Seymore, A. (2013). Competencies during chaos: life-saving performance of patient care providers using a multi-actor, competency-based emergency preparedness curriculum. *Annals of Emergency Medicine*, 62(4s), S160. Retrieved from: <http://0-www.sciencedirect.com.uncclc.coast.uncwil.edu/science/article/pii/S0196064413009499>
- Spain, K., Clements, P.T., DeRanieri, JK.T., Holt, K. (2012). When disaster happens: Emergency preparedness for Nurse Practitioners. *Journal for Nurse Practitioners*, 8(1), 38-44. doi: 10.1016/j.nurpra.2011.07.024

Spellman, J. (2006). Overview and summary: emergency preparedness: planning for disaster response. *Online Journal of Issues in Nursing*, 11(3).

Retrieved from: [http://0-](http://0-ehis.ebscohost.com.uncclc.coast.uncwil.edu/ehost/detail?sid=752f087e-36cd-4510-9f5a-d9f0886b7e19%40sessionmgr4004&vid=5&hid=4105&bdata=JnNpdGU9ZWZWhvc3QtbGl2ZQ%3d%3d)

[ehis.ebscohost.com.uncclc.coast.uncwil.edu/ehost/detail?sid=752f087e-36cd-4510-](http://0-ehis.ebscohost.com.uncclc.coast.uncwil.edu/ehost/detail?sid=752f087e-36cd-4510-9f5a-d9f0886b7e19%40sessionmgr4004&vid=5&hid=4105&bdata=JnNpdGU9ZWZWhvc3QtbGl2ZQ%3d%3d)

[9f5a-](http://0-ehis.ebscohost.com.uncclc.coast.uncwil.edu/ehost/detail?sid=752f087e-36cd-4510-9f5a-d9f0886b7e19%40sessionmgr4004&vid=5&hid=4105&bdata=JnNpdGU9ZWZWhvc3QtbGl2ZQ%3d%3d)

[d9f0886b7e19%40sessionmgr4004&vid=5&hid=4105&bdata=JnNpdGU9ZWZWhvc3QtbGl2](http://0-ehis.ebscohost.com.uncclc.coast.uncwil.edu/ehost/detail?sid=752f087e-36cd-4510-9f5a-d9f0886b7e19%40sessionmgr4004&vid=5&hid=4105&bdata=JnNpdGU9ZWZWhvc3QtbGl2ZQ%3d%3d)

[ZQ%3d%3d](http://0-ehis.ebscohost.com.uncclc.coast.uncwil.edu/ehost/detail?sid=752f087e-36cd-4510-9f5a-d9f0886b7e19%40sessionmgr4004&vid=5&hid=4105&bdata=JnNpdGU9ZWZWhvc3QtbGl2ZQ%3d%3d)

Wiener, E. (2006). Preparing nurses internationally for emergency planning and

response. *The Online Journal of Issues in Nursing*, 11, (3). Retrieved from:

[http://0-](http://0-ehis.ebscohost.com.uncclc.coast.uncwil.edu/ehost/detail?vid=9&sid=752f087e-36cd-4510-9f5a-d9f0886b7e19%40sessionmgr4004&hid=4105&bdata=JnNpdGU9ZWZWhvc3QtbGl2ZQ%3d%3d)

[ehis.ebscohost.com.uncclc.coast.uncwil.edu/ehost/detail?vid=9&sid=752f087e-](http://0-ehis.ebscohost.com.uncclc.coast.uncwil.edu/ehost/detail?vid=9&sid=752f087e-36cd-4510-9f5a-d9f0886b7e19%40sessionmgr4004&hid=4105&bdata=JnNpdGU9ZWZWhvc3QtbGl2ZQ%3d%3d)

[36cd-4510-9f5a-](http://0-ehis.ebscohost.com.uncclc.coast.uncwil.edu/ehost/detail?vid=9&sid=752f087e-36cd-4510-9f5a-d9f0886b7e19%40sessionmgr4004&hid=4105&bdata=JnNpdGU9ZWZWhvc3QtbGl2ZQ%3d%3d)

[d9f0886b7e19%40sessionmgr4004&hid=4105&bdata=JnNpdGU9ZWZWhvc3QtbGl2ZQ%3](http://0-ehis.ebscohost.com.uncclc.coast.uncwil.edu/ehost/detail?vid=9&sid=752f087e-36cd-4510-9f5a-d9f0886b7e19%40sessionmgr4004&hid=4105&bdata=JnNpdGU9ZWZWhvc3QtbGl2ZQ%3d%3d)