NURSE PARTICIPATION IN CONTINUING EDUCATION IN DISASTER NURSING IN TAIWAN

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The country of Taiwan is extremely vulnerable to natural disasters. A global risk analysis of natural disaster hot spots identified Taiwan as the number one country with the greatest risk of exposure to at least 4 natural disasters, and it ranks among the top 10 countries at relatively high mortality risk from multiple hazards as well.[1] In the past 2 decades alone, the country has experienced a number of devastating disasters including earthquakes, typhoons, floods, infectious diseases outbreaks, and aircraft accidents. Nurses constitute the largest number of health care providers playing decisive roles in all 4 phases of disasters management: mitigation, preparedness, response and recovery.[2] Therefore, nurse competency in responding to all phases of disasters is critical. This competence can be cultivated and enhanced by providing disaster nursing education, the importance of which has been addressed by nursing societies and entities around the world.[2,3]

Research suggests that although nurses recognize the importance of disaster education, only a limited number of nurses have actually received disaster education.[4] Despite the many major disasters experienced in recent years and the well-defined significant risk of exposure to all types of disasters, very limited disaster nursing continuing education has been provided in Taiwan. Additionally, information regarding issues surrounding disaster nursing education in the country is sparse.[5,6] Recognizing the importance of disaster nursing education, and having a desire to better prepare nurses to function effectively in all phases of disaster, the Taiwan Nurses Association (TWNA) launched a disaster nursing continuing education series in 2012.

The objectives of the disaster education series are to familiarize participants with the nursing roles and responsibilities in disaster situations and to prepare nurses for playing crucial roles in all phases of disasters. The course has been offered annually at various locations throughout Taiwan to nurse members of TWNA with free access. Course materials are provided at the TWNA Disaster Nursing Committee Web site after the face-to-face courses are offered. Course content is aligned with all 4 phases of disaster management. Detailed course information is summarized in Table 1. Although the continuing education courses have been provided for several years, participant-specific information was limited. To ensure that the education is meeting its goals and to guide future development and promotion of disaster nursing continuing education, a study was conducted to delineate relevant issues regarding disaster nursing education in Taiwan. This article describes our findings and their implications.

Method

STUDY DESIGN AND DATA SOURCE

The study involved completion of an anonymous survey questionnaire by nurse attendees after each 8-hour TWNA disaster nursing course held during the period of 2012-2015. A total of 1817 participants in 18 continuing education courses were surveyed. Two courses were taught in 2012; 4 in 2013; 8 in 2014; and 4 in 2015. Two data elements were collected: workplace and nursing specialty. This study was conducted in accordance with the TWNA Human Subjects' Committee review processes.

DATA ANALYSIS

Descriptive statistics of the total number and percentage were used to quantify workplace and nursing specialty. Data

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TABLE 1
Taiwan Nurses Association disaster nursing continuing education course content

Phase of disaster	Topics
Mitigation	Epidemiology and risks of the disasters
	Management recourses of the national and community disasters
Preparation	Exercise of the disaster preparation plans
	Ethical, legal, and liability issues in disasters
	Gender and cultural consideration and needs
	Personal preparation and protection in various disasters
	Communication and sharing of the information
Response	Disaster assessment and community resources management
	Infection control and management principles in disasters
	Initial aid and disaster triage
	Interaction with and support for disaster victims
	Physical, mental, and family care of the disaster victims
	Care to vulnerable groups and their families
	Health care models in disasters
Recovery	Recovery of the individual, family and community
	Referral resources and long-term care in disasters
	Records and research in disasters

were analyzed using Statistical Package for the Social Sciences (SPSS) version 22 (IBM Corp, Armonk, NY).

Results

The findings of this national study show that the overwhelming number of course attendees were hospital-based nurses (n = 1558, 85.7%). This finding was consistent across all of the years studied (see Table 2). Workplaces having the fewest attendees each year were public health centers, long-term care centers, and schools. The major specialties of hospital-based attendees were emergency/critical care (n = 556, 30.6%), followed by medical (n = 304, 16.7%) and surgical nurses (n = 217, 11.9%; see Table 3). It should be noted that the category emergency and critical care is combined because nurses who work in emergency also work in critical care units; these 2 specialty areas will be separated in future studies.

Discussion

The study findings that course attendees were predominantly hospital-based nurses and that nurses employed in public health centers, long-term care centers, and schools had the smallest attendance warrants attention. Interna-

tional scholars have recommended that disaster responses by the nursing workforce should not rely solely on hospital nurses.[5] Reliance on hospital nurses to respond to disasters may be problematic for 2 reasons. First, hospital nurses are always enlisted to respond to disasters and already have professional obligations to provide care for hospitalized patients. As a result, the workloads of hospital nurses increases and the effectiveness of the health care service in disasters is ultimately reduced. Second, the health care needs

TABLE 2
Disaster nursing course attendee workplaces

Workplace	Year				
	2015	2014	2013	2012	Total
Hospital	362	585	288	323	1558
Clinic	14	25	14	19	72
PHC	0	2	0	1	3
LTC	5	15	7	4	31
University teacher	10	34	11	17	72
School nurse	0	7	1	3	11
Others	13	29	15	13	70
Total	404	697	336	380	1817

LTC, Long-term care; *PHC,* public health center.

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