

WHOCC annual report について 2013

Activity 1(ID 1): To identify the conditions of daily living and health among survivors including vulnerable people.

The following is summary about the research conducted to identify the health conditions among survivors in 2013.

<Purpose> The survey was conducted to clarify the health and living conditions of the survivors living in temporary housing two years after the Great East Japan Earthquake.

<Method> A semi-structured questionnaire was utilized for data collection. The questionnaires included the following categories: 1) Demographic data such as age, gender, number of housemates, present illness, number of regular clinic visits, job situations before and after the earthquake disaster, situation of damage to home, life style habit such as drinking/smoking habit, appetite, consumption of snacks, sleep situation, methods of refreshment, persons to consult, finding joy in daily life, and participation in community activities, and 2) health conditions such as subjective symptoms, variation in body weight and disease, and 3) their health-related QOL. QOL was evaluated by the MOS 36-item Short Form Health Survey version 2 (SF-36v2 in Japanese). Survivors living at the temporary housings in District A were asked either to complete the questionnaire by themselves or to answer the questions in an interview. Their health-related QOL was also evaluated by using the SPSS statistics 17.0 was adopted for data analysis using the following methods: descriptive statistics, the t-test, one-way analysis of variance, and the χ^2 test. This survey was approved by Research Ethics Committee at College of Nursing Art & Science, University of Hyogo.

<Results> From December 10 to January 31, 2013, a semi-structured questionnaire survey on 435 residents aged 18 or over was conducted. Of the residents, 115 responded to the questionnaire. The response rate was 26.4%. Valid responses were obtained from 114 respondents. Valid response rate was 37.7% in males, and 62.3% in females. Their mean age was 68.9 ± 14.6 years, and those aged 65 years old and over accounted for 72.8%. In the evaluation of damage to their houses, 96.5 % reported their houses were completely destroyed, and 85.7% have decided where to move in the future. Their morbidity rate was 73.7% and mean of diseases number that one survivors had was 2.0 ± 14.6 . Suffering lifestyle related diseases (stroke, hypertension, heart diseases, diabetes and hyperlipidemia)

accounted for 64.3% and highest morbidity was hypertension (51.2%). Sixty three respondents (62.4%) complained of subjective symptoms. In response to the question about present health conditions, 69.3% of respondents answered “good” and 30.7% of respondents answered “not good”. There were no relevant between present health conditions and morbidity rate. On the other hand, there were relevant between present health conditions and subjective symptoms ($p<0.001$). People who have no subjective symptoms thought their good health conditions. On having fun in their daily life, there were 74.3% of the respondents and 70.2% of the respondents joined the community activities or events/group activities held at the temporary housing. On the relevant among the morbidity rate, presence or absence of subjective symptoms and present health conditions of the respondents joined the community activities, there were significant difference on the morbidity rate ($p=0.005$). The rate of people who have disease joined the community activities was higher than people who have no disease.

<Suggestions> The results show that the survivors living in temporary housing in District A continued to face health problems/issues which had been affected with before the earthquake. Especially, nurses should pay attention to people who have subjective symptoms on supporting life and health of survivors living in temporary housing. In addition, the possibility of promoting the health maintenance for people who had diseases would be suggested by holding activities or events which were related health because of high rate of people who have disease join the activities.

Activity 2 (ID 3): To validate existing guidelines for vulnerable people and nurses who care for them.

The following study was conducted to validate the guidelines for nurses taking care of pregnant and childrearing women.

<Purpose> The purpose of this study was to examine the usefulness of the guideline for pregnant women at the time of disaster and preparedness. The validation for usefulness was examined based on the experience of the Great East Japan Earthquake.

<Method> An interview was conducted for nurses who engaged in care for pregnant women and child-rearing mothers at medical facilities in the areas affected by the earthquake. The guideline titled as “Nursing Care for Pregnant Women, Postpartum Mothers, Newborns and Their Families - Be Prepared before Disaster Strikes.” It was consisted of 2 parts – in normal times and in disaster time-. In normal time, it constituted the preparedness which was “Prepare your ward during

normal times”. In disaster time, there were 6 components that were 1) Ensure safety, and offer a sense of security, 2) Nursing care for physical and mental health, 3) Adjusting your cognition, and support day-to-day life and health, 4) Caring for mental health, 5) Assisting labor outside of medical facilities and 6) Cooperation with the family members. This survey was approved by Research Ethics Committee at College of Nursing Art & Science, University of Hyogo.

<Results> Eleven nurses participated with consent. Nurses expressed which the contents in the guideline were suitable and were also useful under disaster situation. Furthermore, participants mentioned that the contents about “symptoms of physical and mental health when a disaster happens”, “nursing care for mental health” and “the health of nurses who are suffered from a disaster” were especially essential and beneficial for them to take care of pregnant women and others.

These results were disseminated to inside Japan by the Academic Conference and Journal of Japan Maternity Nursing. The result titled “The usefulness of the guideline for nurses who care for pregnant women and child-rearing mothers at the time of disaster” was published in the Journal. The results were also disseminated to inside and outside of Japan through our web site.

Activity 3(ID 4): To validate the core competencies for disaster nursing developed by WHO and ICN.

The disaster nursing competencies for undergraduate students was developed by our Center of Excellent program funded by Japanese Government in 2008. Based on our competencies, disaster nursing competencies for nurses were developed in relation with WHO, International Confederation of Nurses, and our Research Institute, University of Hyogo. Based on nursing practice at the time of the Great East Japan Earthquake and our research results explaining in another section of this report, the competencies were examined.

The prevention/mitigation competencies include 2 domains; one is “Risk Redaction, Disease Prevention and Health Promotion”, and the other is “Policy Development and Planning”. In Risk Redaction, Disease Prevention and Health Promotion, the following activities were included such as conducting the survey, providing health consultation and health education for survivors living in temporary housing (see details in reference to Activity 1, Activity 6, and Activity 8 in this report). One of roles in disaster nursing was participating in disaster planning (see details in reference to Activity 8). It was shown that disaster nursing competencies –“Participates in disaster planning and policy development” in “Policy

Development and Planning”. In “Policy Development and Planning”, there were “Describes the role of public health in disaster and how it relates to the nurse’s role”. The research for activities of support nurses coming from outside the disaster site (see details in reference to Activity 9) was represented the realistic nursing disaster competencies.

The preparedness competencies include 3 domains; “Ethical Practice, Legal Practice and Accountability”, “Communication and Information Sharing” and “Education and Preparedness”. The research for validation of guideline (see details in reference to Activity 2) and the health consultation for survivors living in temporary housing (see details in reference to Activity 1) and the research for support nursing activities (see details in reference to Activity 9) to survivors suggested the “Accountability”. In the research for network-systems (see details in reference to Activity 4), the supportive network system was created to adjust itself to the needs of nursing at the disaster sites. This supportive network system has roles of coordination and provision information among the disaster response team. It was shown that disaster nursing competencies - “Communication and Information Sharing”. The conducting education programs for teachers/faculties and nurses (see details in reference to Activity 7) and educational programs for community people (details in reference to Activity 6) and the conducted research (details in reference to Activity 1, Activity 2, Activity 4 and Activity 9) supported contents of competencies in “Education and Preparedness”.

The response competencies include 4 domains; “Care of the Community”, “Care of Individuals and Families”, “Psychological Care”, and “Care of Vulnerable Population”. The activities of support nurses (details in reference to Activity 9) were fitted in “Care of Communities”. The survey for validation of guideline revealed how to care for Vulnerable Population, Individuals and Families. This survey explained the practical ways of “Care of Individuals and Families” and “Care of Vulnerable Population”.

“Long-term Individual, Family and Community Recovery” was one competency in the recovery/rehabilitation competency. The activities of support nurses (details in reference to Activity 9) were represented the “Long-term Individual, Family and Community Recovery”. In addition, the research and the health consultation for survivors living in temporary housing (see details in reference to Activity 1, Activity 6 and Activity 8) was also related this competencies.

On the other hands, the importance of the ability of stress management for nurses themselves was identified by research about support nurses activities (see details in

reference to Activity 9). The ability of stress management of nurses would be included in the disaster nursing competencies.

Activity 4 (ID 6) : To develop effective network-systems among organization related to nursing, such as professional organizations, Ministry of Health, University, Academic organizations, and other inter-professional organizations, such as Medical organizations, as well

A systematic literature review was conducted in order to identify an effective nursing supportive network system in disasters. In order to clarify how the effective network system of nursing support was constructed for the Great East Japan Earthquake (GEJE), two years of literatures including research papers concerning GEJE, GEJE reports edited by Japanese Nursing Association Publishing Company and organizations at the sites of disaster, materials from Japan Society of Disaster Nursing were analyzed. Until 30th Oct, 2013, 4614 titles related to “GEJE” were extracted. They were filtered using the keywords combination “GEJE / Supportive network / Nursing” and resulted in 66 titles.

<Results> Through analysis of these resources, it was found the supportive network system was created to adjust itself to the needs of nursing at the disaster sites. The network needs during the disaster were categorized into five types as follow. The support network for the needs of “the evacuation of patients” were created among already existed networks and spontaneously created network worked together effectively. In the “support to the local nurses,” support service window and resident coordinators were set as a channel between outer supportive networks and inner networks in order to support a new expanded network. For the “Continuity of medical care,” the new networks were born due to the cooperation among local existing networks, organizations, and medical personnel in the area. By supply of satellite phones, direct negotiation of the medical staff, and outside supporters, “transportation of patients out of the disaster area” were carried out smoothly. In the “daily life support and care for people in the disaster areas,” the nurses in the disaster areas worked as coordinators to cooperate with the support nurses, so supportive networks both inside and outside of the disaster areas could work appropriately to the needs of people.

These results were disseminated in the 3rd international conference of the World Society of Disaster Nursing (WSDN).

Activity 5 (ID7) : To develop methods of effective provision of information/knowledge to disaster affected countries through APEDNN in collaboration with WHO-WPRO

On the methods of gathering/sharing information, there were 3 ways; personal network, formal network and accessible public information sources such as web pages including Government or Non-Governmental Organizations. On the methods of distributing information, sending emails through the existing network and the existing web page were beneficial ways.

When Typhoon Haiyan happened in November, 2013, in order to gather information about disaster area was useful to access personal and formal networks. The networks included the Asia Pacific Emergency and Disaster Nursing Network (APEDNN), Global Network of WHO Collaborating Centers for Nursing and Midwifery, and personal network. Furthermore, several universities which were a member of the Asia Pacific Emergency and Disaster Nursing Network (APEDNN) and Global Network of WHO Collaborating Centres for Nursing and Midwifery were contacted to accumulate their activities related to Typhoon Haiyan and to seek possibility of collaboration work.

To gather the information in Japan, web pages which were World Health Organization (WHO), WHO-Western Pacific Regional Office (WPRO), Office of the United Nations High Commissioner for Refugees (UNHCR), UN Office for the Coordination of Humanitarian Affairs (UNOCHA), UN Children's Fund (UNICEF) and Philippines Government were accessed. The information was summarized, and brief reports were distributed through the Web page of our Research Institute. These summary reports were useful and valuable to understand the situation at the disaster site.

The Graph structural analysis for tweet as the other method to identify a reliable data source related to disaster affected area was utilized. On the Typhoon Haiyan in November 2013, tweets of "Twitter" were analyzed by graph structural analysis. Three information sources received attention were identified. These information sources were major news media in Philippines. In challenges for the future, an effectiveness of this method will be validated at the time of future disaster. Furthermore, it is necessary to build mechanism to be shared the identified reliable media resource for nurses taking care of survivors in disaster affected area.

Activity 6 (ID8) : To conduct and disseminate training/educational programs for mitigation of the impact of disasters on community members, particularly those

most vulnerable, including: elderly, children, bearing and rearing women, and disabled.

Three educational programs were conducted in Japan. Health education program for survivors in Kesenuma city where had seriously damaged by the Great East Japan was conducted with faculties of Miyagi University. The second mitigation education program was for elementary school students. The third program was mitigation education for junior high school teacher.

Health education programs for survivors living in temporary housing were developed based on nursing activities after the Great East Japan Earthquake and the research results of health and living conditions among survivors. Nursing activities in Japan included health examination, health consultation, and Mini-lecture about health. Six educational programs in order to maintain good health among survivors at temporary housing after the disaster were provided. The titles of educational programs were the follows: “Lecture of arterial sclerosis”, “Lecture of heat exhaustion”, “Health consultation”, “Lecture of dementia”, “Lecture of relaxation”, and “Measurement of physical fitness and Health consultation”. Each session of the programs lasted fifteen or twenty minutes. Total number of participants was 98 people. On the effects of programs, participants more kept attention to their physical conditions, and changed their life styles in temporary housing after disaster. Through health consultations provided nurses, survivors paid more attentions to own health conditions, and improved their self-care ability.

In addition, the disaster mitigation education was conducted to the elementary school students in summer school. The contents of education were “what is and how to use an automatic external defibrillator (AED)”, “How to do Basic Life Support (BLS)” and “How to evacuate to safety areas during disaster”. Children were interested in AED and BLS and manipulated AED/BLS with each other. It was realized that the summer school was good opportunity for education to elementary school students in community.

Furthermore, the disaster mitigation education was conducted for junior high school teacher. These teachers had the disaster mitigation education classes that were opened for elementary/junior high/high school teacher who came from whole of Japan. (Detail in reference to Activity 7)

Activity 7 (ID9) : To develop and conduct training/educational programs including formal and continuing programs for fostering of trainers in health emergency management.

There are two education programs designed for teachers and/or for nurses. After the Great East Japan Earthquake, it had increased educational needs for nurses. The extension course titled as “The education methods of disaster nursing” was conducted to teachers/faculties, and nurses. The courses were divided into 2 parts; educational contents in disaster nursing and educational method on disaster nursing education. The contents included that basic knowledge of disaster nursing, disaster nursing competency, vulnerable people with special needs and nursing care for them, disaster mitigation education, and others. The education methods included knowledge of lecture, practice, seminar, or simulation method. Faculties and teachers participating in this course mentioned contents of the course were useful for them.

Based on the research results conducted by us, additional contents for training/educational programs are suggested. Nurses dispatched to disaster area are required the ability of need assessment, ability of coordination, ability of stress management by themselves, and ability of human relationship development. A detail of research was referring to Activity 9.

On the other educational program, junior high school teachers trained by our educational program provided mitigation education to their junior high school students. This program was consisting of 2 parts. One was the lecture about disaster, the situation in disaster, and care for people. The other was seminar using simulation method. It was the game called community leader game. Students assumed as community leader and seek support from ordinary people, public administrators, and others under disaster situation. Junior high school teachers had the disaster mitigation education classes that were opened for elementary/junior high/high school teacher who came from whole of Japan. It has the potential of expanding the disaster mitigation education for various age schools in whole of Japan.

Educational programs for the relief nurses were developed and provided by the Hyogo Nursing Association and our Research Institute. The program was divided into 2 steps; Basic session and Follow up session. Basic session was conducted in 2012. In 2013, participants learned hospital disaster preparedness and building a network among neighboring hospitals in the follow up session. A detail of activity is refer to Activity 8. This lecture will need to refine for distributing all over the world.

Activity 8 (ID11): To clarify roles and functions of nurses by disaster cycle

Disaster cycle was included 3 phases – response phase, recovery/rehabilitation

phase and preparedness phase. In response phase, ICN Framework of Disaster Nursing Competencies provided nurse's role which were "Identifies the changing needs of survivors and revises plan of care as required", "Teaches survivors' strategies for prevention of disease and injury" and "Collaborates with the existing health care community for health maintenance and health care". In response phase, It was revealed in research that support nurses coming from outside the disaster site played roles which were "establishing a base of operations and a system" and "sharing information among public health nurses at the disaster site".(A detail of activity are refer to Activity 9).

In recovery/rehabilitation phase, ICN Framework of Disaster Nursing Competencies provided nurse's role which were "Identifies the changing needs of survivors and revises plan of care as required", "Teaches survivors strategies for prevention of disease and injury" and "Collaborates with the existing health care community for health maintenance and health care".

Our Institute and Miyagi University conducted a survey and health consultation to identify health/living condition and needs of survivors living in temporary housing in cooperation with Miyagi University in last year. In addition, health education and health consultation were hold 6 times in one year. Through the survey, health consultation and health education, nurses knew the survivors needs and had a chance to teach strategies for prevention of disease. It was clarified the nursing roles that were assessment for needs of survivor, advance of survivors' health and giving the health education. Furthermore nurses established a network to assist survivors among relevant organization and community. These activities showed how to act nurse's role in disaster recovery/rehabilitation phase and provided good practices. Details of activity are referred to Activity 1 and Activity 6.

In disaster preparedness phase, nurses have one of roles to participate in disaster planning in ICN Framework of Disaster Nursing Competencies. Hyogo Nursing Association joined Hyogo Disaster Planning Committee and our faculties also participated the Committee as disaster nursing specialist.

The educational training for nurses was provided by the Hyogo Nursing Association and our Research Institute. Nurses participating the training created the disaster response manual of owns hospital, and they discussed how to do effective preparedness with the disaster response manual. Furthermore, they discussed how to build a network of neighboring hospitals in this program. Through this program, they were clarified the roles of nurses in disaster preparedness phase that were "participation of the disaster planning" and "building network". In

addition, nursing association has a role that they give disaster mitigation education for nurses.

Activity 9 (ID13): To identify activities among support nurses coming from outside the disaster site

When Great East Japan Earthquake happened, Hyogo prefecture and cities/towns dispatched about 1600 public health nurses to the area affected by the Great East Japan Earthquake (Kesenuma city, Minamisanriku-cho, and Ishinomaki city in Miyagi Prefecture). These nurses kept records about their activities. One thousands seventy two activity logs and reports of public health nurses between 10 days and seven months after the disaster that were analyzed to identify their activities.

The results of the analysis revealed the following challenges according to the period experienced by nurses who provided support from the outside of the disaster. Immediately after the disaster occurred, challenges in the early stage of providing support included, “establishing a base of operations and a system” and “sharing information among public health nurses at the disaster site.”

Challenges experienced during the first month following the disaster included, “the sharing of information between public health nurses from prefectural health centers and cities in the disaster area,” “sharing of information between support teams and other professionals,” “ascertaining the needs of all the shelters set up because of the serious damage,” and “implementing measures for the prevention of infectious diseases at shelters.”

The challenges experienced 1 to 3 months following the disaster included, “summarizing the results of nursing activities performed at shelters and other locations,” “securing health care support staff for shelters,” and “providing mental and physical support to staff members in the disaster area.”

The transfer of survivors to temporary housing began two and a half months after the disaster, and the related challenges included, “developing a support system for people living in temporary housing” and “developing a public health activities system, following the withdrawal of outside support during the reconstruction period.”

The challenges experienced irrespective of the period included, “conflicts between public health nurses involved in deciding the activity,” and “deficiencies of health activities in local community from normal times.”

2. Please briefly describe your collaboration with WHO in regards to the activities of the WHO collaborating center during the past 12 months (e.g. means of communication, frequency of contact, visits to or from WHO). Please feel free to mention any difficulties encountered (if any) and to provide suggestions for increased or improved communication (if applicable).

Western Pacific Regional Office of WHO published the bulletin report which is “NURSES AND MIDWIVES IN ACTION DURING EMERGENCIES AND DISASTERS – Case Studies from the Western Pacific Region”. One article in the bulletin was reported by our institute, Dr. Yamamoto and others, titled as “The 2004 Mid-Niigata Prefecture Earthquake: The Role of Nurses in Addressing Women’s Health Needs after Disaster”. It showed collaborations with WHO in order to share the experience and to disseminate the knowledge based on the research results in the world.

There is WHO Kobe Research Center in Kobe city closed to our Institute. Our university were making plan that was internship in WHO Kobe Research Center and WHO Pacific Region as the education for following generation nurse.

3. Please briefly describe any interactions or collaborations with other WHO collaborating centers in the context of the implementation of the above activities (if any). If you are part of a network of WHO collaborating centers, please also mention the name of the network, and describe any involvement in the network during the last 12 months.

Our WHO Collaborating Centers (WHOCC) joined the Global Network of WHO Collaborating Centers for Nursing and Midwifery. They have the meeting twice of year. Last meeting of the Global Network of WHOCC for Nursing and Midwifery was held in Kobe and our WHOCC supported for holding meetings. In this year, executive director of our WHOCC was involved in planning the meeting and will join the Global Network Meeting to develop and to activate the network in Coimbra, Portugal. In addition, quarterly journals named “LINKS” were published by Global Network of WHO-CC and reports of our activity were published in LINKS to disseminate the knowledge of disaster mitigation and nurses’ role in disaster.

The other network was the Asia Pacific Emergency and Disaster Nursing Network (APEDNN; <http://www.wpro.who.int/hrh/documents/apednn/en/>). The APEDNN have a meeting once of year in members. In every year, faculties joined

the meeting and gave a presentation to members or had a booth for disseminating our guidelines for vulnerable people and nurses who care for them, and the disaster mitigation education in APEDNN meeting. In addition, executive director of our WHOCC was involved in planning the meeting.

On the other collaboration with WHO-CC, the Hong Kong Polytechnic University provides disaster nursing education as summer program for undergraduate and graduate students, and nurses. Hong Kong Polytechnic University, University of Urumqi, and our Institute provided summer courses on disaster nursing for undergraduate and graduate students, and nurses in 2013. Dr. Yamamoto, Executive director of our WHOCC worked cooperatively for holding the course, and provided lectures in summer course at Urumqi, China.

In the other collaboration work, the School of Nursing Peking Union Medical College and our Research Institute supported the Chinese Nursing Association as the host of the third International Conference of World Society of Disaster Nursing. One thousand five hundreds nurses joined the conference coming from Korea, Indonesia, United Kingdom, United of America, Germany, Thailand, China, Swiss land, and Japan. There were 8 keynote speech, around 150 presentation including oral and poster presentations. In this conference, it was good chance to share the experience and knowledge and to make a network related to disaster nursing. Furthermore, it was provided a good opportunity to heighten the interest of disaster nursing in China.