Health Security and Nursing model on disaster risk reduction with a community monitoring of their daily life

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Aim

Extract the “disaster mitigation nursing indicator” contributed by Nursing activities from global trends as well as lessons learned in past disasters.

Develop the Rapid needs assessment tool of disaster with daily community diagnosis.

Goal

To build a DRR nursing model that contribute to human security.
HUMAN SECURITY MEASURES

now or never
Review from Great East Earthquake and Tsunami

**HEADQUATER**
- Dispatch relief squad
- Multiple cooperation
- Support of supporters
- Outreach

**COMMUNITY**
- Information confusion
- Operational coordination
- Evaluation of living environment
- Article management
- Needs assessment
- Vulnerable
  - Pregnant woman
  - Elderly
  - Dementia
  - Alien
  - Stranded commuters
  - Survivor in small evacuation center

**SHELTER**
- Hygiene management
- Evacuation of outpatient
- Active listening
- Medical assistance
- Psychological care
- Digital divide

**HOSPITAL**
- Chronic disease
- Medication
- Under-nutrition
- Pressure ulcer
- ADL decline
- Hypothermia
- Pneumonia
- Emergency delivery

**Global**

**Population**

**Individual**
- Acute
- TIME
- Reconstruction
<Past Achievements>
Immediate Needs Based

- Focused on Relief in **Acute Phase**
- Vertical Support in Disaster Cycles
- **Individual-based** Support
- **Organization-centered** Decision-making
- DMAT • Training Dispatched Nurses
- Lessons from Past Disaster Relief Work

**Challenges & Tasks**
Long-term, Social Problem-Solving beyond Organizational Level

- **Long-term Recovery Plans**
- **Community-based Disaster Reduction Plans**
- **Seamless & Continuous Support**
- Comprehensive approaches to individual, family, and community problems
- **Policy Proposal** from Empirical Evidences
- **Change Organization-Centeredness**
- Review Disaster Ethics
- **Experimental & Innovative Practices**

PARADIGM SHIFT

The importance of nursing activities with bird's-eye view focused on living environment primary health care of shelter
Disaster risk reduction (DRR) is.....

- the concept and practice of reducing disaster risks through systematic efforts to analyze and reduce the causal factors of disasters. Reducing exposure to hazards, lessening vulnerability of people and property, wise management of land and the environment, and improving preparedness and early warning for adverse events are all examples of disaster risk reduction.

Lesson learned from 3.11
Data collection of the damage = slow to assess
Utilization rapid monitoring data for the health crisis → urgent need
Human security was threatened
Lesson learned from Typhoon in Philippine

• **2014 Summer,** We visited a barangay in Novaliches, Quezon City in the aftermath of Typhoon Mario. In the afternoon, the group went to Fort Santiago in Intramuros, Manila for a taste of Filipino history.
Survey results from data collected during Typhoon Mario

Local Barangay staff were contacted by phone and explanatory meetings held at Barangay offices. Five shelter managers were interviewed; they received 325 individuals and 30 families.

Result>>>Larger evacuation center have equipment
But enough in number?

Kanbara et al, 33th Japan Association for International Health, March 2015
# 1-2 FOCUS INTERVIEW WITH FIRST RESPONDER AT THE TIME OF TYPHOON YOLANDA
Temporary shelter

EpiNurses of will register information after the disaster.

EOC: Emergency Operation Center
MOH WHO

District Hospital, Citizens

Health Security Indicator
Living Environment, Preventable Symptom

Robust network not by office but Nurse
Simulation

Preparation
• Based on the map, to create an virtual disaster scenario, DRR plan and manual for nursing

Intervention
• Roles disaster countermeasures headquarters, designated shelter, emergency shelter, relief's
• From disaster countermeasures headquarters, and originated the situation
• In accordance with timer scenario, analyze the information in the disaster countermeasures office
• Survey and analysis of pre, post intervention

Construction of nursing model on disaster risk reduction with a community monitoring of their daily life
Case study 1
Community in Japan Tsunami Prone Area

Demonstration in
Yokohama and Kochi

SHEREPO Training and Workshop in Japan
(November 2014)
The Tacloban City Deployment of eBayanihan-SHEREPO started with a presentation by Ma. Regina Estuar, PhD of Project eBayanihan and Sakiko Kanbara of SHEREPO to Hon. Alfred Romualdez, City Mayor of Tacloban, Leyte.
The presentation was followed by Hon. Romualdez’s sharing of the city’s experiences at the wake of Typhoon Haiyan (Yolanda) and how the city has since worked towards recovering from the said disaster. Dr. Estuar and Dr. Kanbara also responded to the mayor’s questions regarding the systems (eBayanihan and SHEREPO).
After the presentation to the Mayor, the team commenced the training and simulation workshop with the participants, which include members of TACRU (Tacloban City Rescue Unit), a Tacloban CDRRMO representative, a TOMECO-PNP representative, City Health Office representatives, and barangay officers (captains and treasurer) from Brgy. 5-A and Brgy. 95.
New Challenge for Nepal Earthquake 2015

• We seek to provide an open framework that can easily provide APIs (application programming interface) for integration with others as well as provide APIs for data integration and data sharing with other health sectors, MoH and WHO. The framework start creating Rapid Analytic Tools in excel spreadsheets delivered in layman’s terms for Nepali nurse by using paper and ICT.
Approach

- Nurses observe the living environment of shelter, assess symptom of communicable diseases by consultation and measuring.
- Data aggregation was reported by Epinurse who trained on workshop in advance.
- The most critical challenge is data collection to generate reasonable information that can be used in predicting whether something is likely to occur.
- Focused on the most common health conditions encountered after a disaster, to prevent communicable disease earlier than detecting outbreak.
# Steps in ensuring communicable disease control in emergencies

## Step 1. Conduct rapid health assessment

<table>
<thead>
<tr>
<th>When</th>
<th>By whom</th>
</tr>
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<tbody>
<tr>
<td>After April 25</td>
<td>Health professionals</td>
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- Identify main disease threats, including potential epidemic diseases
- Obtain data on the host country, on the country of origin of displaced persons and on the areas through which they may have passed
- Identify priority public health interventions
- Identify the lead health agency
- Establish health coordination mechanisms

## Step 2. Prevent communicable diseases

**A. Select and plan sites**  
**ASAP August**  
**By Relief Nurses**

- Ensure adequate water and sanitation facilities
- Ensure availability of food
- Control vectors
- Implement vaccination campaigns (e.g. measles)

## 3. Set up surveillance/early warning system

- Detect outbreaks early
- Report diseases of epidemic potential immediately
- Monitor disease trends

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**WHO: A field manual - Communicable disease control in emergencies**  
http://www.who.int/diseasecontrol_emergencies/publications/9241546166/en/
From Now

**JAPAN**

University of Kochi (UK)

日本チーム (J) ①

- ナース
- パブリックヘルス
- アンthropology

大学院の教育者

日本チーム(J)

- ナース
- パブリックヘルス
- ナースチーム

日本チーム(J)

ナースチームのナース

ナースセンター(アナリスト)

MOH, WHO

ネパールチーム

ネパールチームのナース

日本チーム

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Expected Outcome

• Through mutually complementary engagement by the global research teams in the calm period of time before a disaster occurs, it will be possible to conduct quick comparative evaluation of health conditions and needs from the perspective of normal, everyday life even within the time constraints imposed by a large-scale disaster.

• This study will be able to show that this very activity will contribute to a reduction of the effects of disasters as a disaster simulation, and that it will drive the wide use of the system in the countries of Asia where natural disasters occur frequently.
Thank you!