Developing a Questionnaire for a Factual of the Kumamoto Earthquake: Working Toward a Hospital Support System

Tomoko Hashizume\(^1\), Kazuko Komori\(^2\), Toru Hirokawa\(^2\), Mitsuru Uekado\(^2\), Hiroshi Utsunomiya\(^2\), Satoshi Katsuyama\(^3\), Ariko Noji\(^1\)

\(^1\)Graduate School of Nursing, Chiba University, Chiba, Japan
\(^2\)Japanese Red Cross Society, Healthcare Service Headquarters, Tokyo, Japan
E-mail: t-hashizume@chiba-u.jp

Abstract ID 228

Introduction:
The disaster rescue operations of the Japanese Red Cross Society were not expected to include continuing the operation of hospitals in the disaster area from immediately after the disaster and for the long-term. However, many staff members were affected by the Great East Japan Earthquake in 2011 and continuing hospital operations became difficult. Rather, hospital support had to be provided to them. As the support system was inadequate and another earthquake could occur at any moment, a support system for hospitals in disaster areas became necessary.

Objectives:
To develop such a system, we will create a questionnaire related to the conditions of the staff members supporting hospital A and the hospital-support conditions one year after the disaster. This will serve as a foundational resource.

Methods:
During the activities conducted after the Kumamoto earthquake, two issues were found: 1) identifying the best form of support to avoid burdening the hospitals, and 2) establishing coordination between the support staff and the hospitals. Our team consists of members who have experienced these issues in the field and at the head office. We used a substraction method to develop the questionnaire.

Results:
Issue 1 was divided into education system, activity content, and lifestyle preparation. “Education system” was subdivided into “research effectiveness” and “dispatch experience.” Issue 2 was divided based on the roles of head office staff, hospital-support coordinators, and managers, and managers’ roles were subdivided into “before dispatch” and “after dispatch.” A pre-test was conducted—items related to the evaluation of training were extracted from the free response section and a career development ladder was added to “education system.” (Figure 1).

Conclusion:
Six fields were defined, with up to four questions for each. The questionnaire consisted of 13 questions. We will use this questionnaire for a factual investigation into the response to the Kumamoto earthquake.

Keywords:
Disaster rescue operations, hospital assistance for disasters, factual survey, developing a questionnaire

<table>
<thead>
<tr>
<th>Theme</th>
<th>Establishment of the system to support a hospital during disasters</th>
</tr>
</thead>
<tbody>
<tr>
<td>Issue(2)</td>
<td>How to support hospitals while avoiding burden on the hospitals in the damaged district</td>
</tr>
<tr>
<td>Fields(6)</td>
<td>Educational system</td>
</tr>
<tr>
<td>Effect of the training</td>
<td>Experience of disasters aid</td>
</tr>
<tr>
<td>Participation results to training</td>
<td>Experience and result of disaster aid</td>
</tr>
<tr>
<td>Quality of the training</td>
<td>Career development ladder of the educational system</td>
</tr>
<tr>
<td>Questions (13)</td>
<td>Place of activity</td>
</tr>
</tbody>
</table>

Figure 1. Substraction for Establishment of the system to support a hospital during disasters