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CLARIFYING THE SITUATION OF THE VICTIMS WITH SPECIAL NEEDS ON EVACUATION SITE USING THE 7 LIVELIHOOD DOMAIN MODEL

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Abstract

The rapid pace of aging in Japan implies that the number of elderly persons requiring special care will also increase rapidly in the time of disasters. The sure sign of this state was seen in the recent two disasters occurred in Japan, which were received public attention as a social problem of suffering of the elderly. In the 2004 Niigata Flooding twelve of 15 fatalities were over 65 years. The Mid-Niigata Prefecture Earthquake caused over 1000 elder refugees staying in emergency shelters, who needed nursing care.

The Victims with special needs require the support for going through each phase; 1) move to evacuation site, 2) live in evacuation shelters, 3) live in temporary housings, 4) rebuild the life. The final destination of those supports must be the self-reliance efforts to realize rebuild the life after disaster; however, the process is never planned as the whole. At the time of the Niigataken Chuetsu-oki Earthquake in 2007 the local governments properly applied their experiences of the past two disasters to realize the intensive care of the victims with special needs through the whole process of rebuilding the life after disaster

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This study clarified the situation of the victims with special needs especially in the phase of living in the evacuation shelters through the activity of Japan Association of Certified Care Workers, which sent the professional volunteers to the disaster-stricken area of the Niigataken Chuetsu-oki Earthquake in 2007. We interviewed some of them to build the hypothesis and surveyed 50 of them to clarify the situation on the evacuation site. We also found the 7 Livelihood Domain JACCW Model could be used as the framework to support the victims with special needs after the disaster.

Sections

1. Support for victims with special needs during disasters in Japan

The fact that elderly persons accounted for more than half of the victims of storms and floods in Japan in 2004, and that the nation officially entered the era of the so-called "super-aged society" (i.e., those aged 65 or above accounting for 21% or more of the total population) in 2007, have prompted Japan to work towards establishment of a system for providing evacuation support and other assistance to the elderly and other victims with special needs at times of disaster. Between 2005 and 2007, the Cabinet Office announced a series of guidelines for local authorities to follow in terms of assisting victims with special needs during disasters.

The Niigataken Chuetsu-oki Earthquake, which struck in 2007, saw implementation of proactive and innovative measures to assist victims, particularly those who are vulnerable. A Local Welfare and Health Headquarters was established in a health center in the disaster area (Kashiwazaki City) where volunteers specializing in the fields of medicine, health, and welfare assisted victims, focusing on vulnerable persons. The main measures were: 1) establishment of nine welfare evacuation centers to assist the lives of vulnerable persons as evacuees, and 2) a health and welfare requirements survey conducted on all households in areas where damage was severe in order to ensure the safety of those afflicted by the disaster who remain at home.

In the Chuetsu Earthquake of 2004, volunteers with specialist knowledge entered the afflicted area mostly autonomously, and staff from local municipal authorities independently coordinated the activities of volunteers. While the support offered by the specialist volunteers were extremely effective for the victims, the role of managing the volunteers fell on local municipal authorities, and the disjointed nature of contact between the volunteers and the authorities made it difficult to strategically coordinate the relief effort. With such circumstances in view, the Niigataken Chuetsu-oki Earthquake in 2007 saw the prefectural authorities establish a Local Welfare and Health Headquarters and actively recruited specialist volunteers through industry organizations with an aim to strategically provide support for vulnerable persons while coordinating the overall relief effort. As a result, the relief measures were implemented with the participation of a total of 2,100 specialist volunteers in 19 days.

2. Assistance for victims who remained at home

The Local Health and Welfare Headquarters placed the confirmation of the safety of victims who remained at home as its first priority, and conducted a health and welfare requirements survey. All 24,424 households in the 15 particularly heavy-hit districts in Kashiwazaki City were surveyed over 19 days from July 21 to August 8. The survey was conducted by total of 1496 researchers, comprising health nurses, social workers, care workers, and teaching staff from nursing schools amongst others, divided into 720 teams (the majority of researchers were health nurses). As a general rule, a team comprising a pair of researchers visited a household with a pre-written questionnaire to obtain information such as previous medical histories, current medical treatments, and presence of any subjective symptoms with regards to the respondents and their families, and took separate details of any individuals who required assistance so as to ensure that they receive the necessary service. The survey

contributed in particular to the discovery of 293 individuals who required assistance as a matter of priority.

The results of the survey conducted in Kashiwazaki City revealed that the main issues facing those who required assistance were as follows:

[Care] Difficulties caused by service usage restrictions, inability to contact care manager.

[Mental health care] Insomnia, depression

[Medical Service] Interruption to medical treatment, worsening of chronic conditions

[Parenting] Child regression, child anxiety

[Disabilities] Uncertainties of being at home after leaving care facilities

[Intractable Diseases] Care difficulties even for day service / day hospital users

<Others> Problems with daily life (e.g. unable to bathe / tidy) etc.

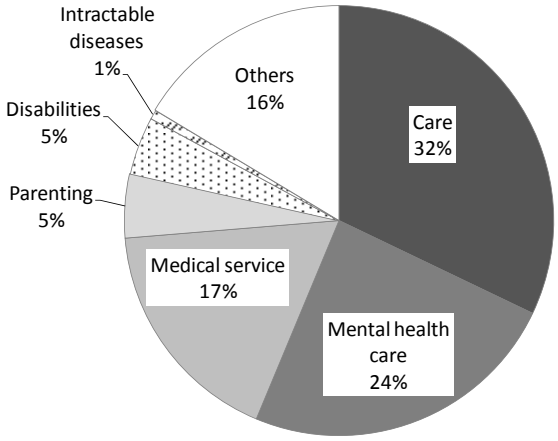

Figure1. The results of the survey conducted in Kashiwazaki City

3. Dealing with vulnerable persons at evacuation centers

Welfare evacuation spaces, which have a better environment in comparison to regular evacuation spaces, are facilities that are set aside for use by those who require special assistance at times of disaster. Specifically, welfare evacuation spaces are allocated one specialist for approximately every ten vulnerable persons, and items required by vulnerable persons are provided by the state. However, as of 2007, advance designations of welfare evacuation centers had not been in progress. This was because local authorities lacked understanding of the type of environment required due to lack of previous experience. In the aftermath of the Chuetsu-oki offshore earthquake, Niigata prefectural authorities and the local municipalities in the afflicted area actively worked to secure welfare evacuation spaces, resulting in the establishment and operation of nine welfare evacuation centers. These welfare evacuation centers were used over a total of 46 days by 2335 people. The Chuetsu - oki earthquake was the first full-scale establishment of welfare evacuation centers in Japan.

4. Activities of specialist volunteers

In this paper, the situation surrounding persons requiring special assistance during disasters in terms of evacuation life assistance is uncovered through activities of volunteer care workers from the Japan Association of Certified Care Workers (JACCW) who worked in the areas afflicted by the Niigataken Chuetsu-oki Earthquake. The JACCW is a professional body of nationally certified care workers who, as specialists in the care industry that supports

the aging society, engage in care services for the elderly and the disabled in care facilities and hospitals or through home care 5). The JACCW's activities in the areas struck by the Great Hanshin Earthquake in 1995 prompted it to commence dispatchment of disaster relief volunteers. A group interview was conducted on several care workers who worked as specialist volunteers in disaster-afflicted areas in order to comprehensively uncover the conditions of evacuation lives of victims, particularly those of persons requiring special assistance, as observed by the workers through their activities in the afflicted areas.

The seven livelihood domain model, proposed by the JACCW, are used to model concepts that represent the target framework for supporting those requiring special assistance. In addition to food, clothing, and housing, which represent the fundamentals of living, the model further assesses physical health, mental health, family relationships, and social relationships in order to establish the state surrounding the mind and body as well as the family and social backgrounds of users. These are used to analyze the causes and backgrounds of difficulties facing the users in order to deliver solutions. From the point of victims, disasters are events that destroy or alter their lives. After saving the lives of the victims in the aftermath of the disaster, there is a need to comprehensively and objectively determine, using the seven livelihood domain model, aspects of their livelihoods that still have potential and areas where they require assistance in order to recover.

Table1. Activity areas of Care workers

Assistance	Activity	#	%
Prevention	Prevention of disuse syndrome	24	48
Bathing	Assistance in bathing by undressing and dressing them	20	40
	Assistance in bathing by guiding them	19	38
	Direct assistance in bathing	16	32
Detect needs	Communicating with the victims to establish their needs	15	30
	Participating in the survey to establish the needs of those who remained at home	13	26
Bathing	Assistance in taking fluid after bathing	12	24
	Assistance in setting table	12	24
	Assistance in cleaning table	10	20
Environment	Assistance in organizing environment in shelters	9	18
Toileting	Assistance in toileting by guiding them	8	16
Bathing	Keeping watch at the time of bathing	8	16
Eating	Disseminating food and materials	7	14
	Direct assistance in having food	6	12
	Making observations about the health condition	6	12
Bathing	Assistance in dry bathing	6	12
Prevention	Assistance in exercising for care prevention	6	12
Toileting	Direct assistance in toileting	5	10
	Assistance in cleaning up portable toilets	5	10
	Making observations about the health condition	4	8
Bathing	Making observations about the health condition	2	4

5. Details of activities of specialist volunteers

Fifty individuals who participated as care work assistance volunteers were asked about the location and details of their activities. It was revealed that 37% of the respondents participated in care work support in regular evacuation centers, 23% participated in care work support in welfare evacuation centers, 21% participated in the safety confirmation survey conducted on victims who remained at home, and 10% participated in care work support in care facilities and institutions.

The 50 individuals who participated as care work assistance volunteers were asked "What specific activities did you participate in?" to obtain responses about the types of activities that they carried out in the afflicted areas. The responses were arranged in order of frequency and

divided into categories. The activity that the largest number of volunteers participated in was prevention of disuse syndrome (24 respondents), followed by assisting patients in bathing by undressing and dressing them (20 respondents), guiding them (19 respondents) and through direct assistance (16 respondents). This was followed by communicating with the victims to establish their needs (15 respondents) and participating in the survey to establish the needs of those who remained at home (13 respondents). The effective method of bathing assistance is for the carer to provide comprehensive assistance from undressing and dressing, guidance, direct bathing assistance, hydration, and keeping watch, to making observations about the health condition of the patient, with the same carer making continual observations over an extended period of time; however, the questionnaire revealed that this type of assistance was not necessarily made available in the disaster-afflicted area.

6. Status of disaster victims in terms of the seven livelihood domains.

The Japan Association of Certified Care Workers (JACCW) established the concept of the livelihood domain model for defining its sphere of activities. The Model is called "The 7 Livelihood Domain Model", which consisted of 7 elements should be focused on; Clothing, Food, Housing, Physical Health, Mental Health, Family Relationship, Social Relationship. We also found the 7 Livelihood Domain JACCW Model could be used as the framework to support the victims with special needs after the disaster.

Figure 2. The conceptual scheme of Care Workers

6.1. Clothing

Lack of access to clean clothes was the issue that was most commonly cited by care work support volunteers as a problem that faced disaster victims, with 46% of the total considering it to be a problem. While laundry facilities were available in some evacuation centers, they were not in others, and this was the only response which almost 50% of all respondents regarded as an issue that required addressing.

Table2. Victims' condition (Clothing)

Victims' Condition（Clothing）	%
Lack of access to clean clothes	46
Lack of any change of clothes	24
Unable to purchase any clothes	20

6.2. Food

There were no aspects which more than 50% of all respondents thought to be a problem for the disaster victims. The most commonly cited problem was that the food was not nutritionally balanced (38%), followed by the supplied food not catering for restrictive diets (34%).

Table3. Victims' condition (Food)

Victims' Condition（Food）	%
Food was not nutritionally balanced	38
Supplied food not catering for restrictive diets	34
Unable to purchase any food	24
Not to drink enough fluid	18
Pattern of meals is not suitable for victims	18
Way of conserving food was not appropriate	14
No opportunity of setting/clearing table by oneself	10

6.3. Shelter

The issue that was most commonly cited by care work support volunteers to be a problem facing disaster victims was the lack of privacy, with 64% of all respondents considering it to be a problem. This was the only response that more than 50% of the respondents regarded as an issue that required addressing.

Table4. Victims' condition (Housing)

Victims' Condition（Housing）	%
Lack of privacy	64
No enough bedding to maintain good health	28
Not well-establised living space for each victim	26
Temperature or humidity was not appropriate	18
Not good enough condition for Moving around	16
Living space in the condition of poor hygiene	12
There was the difference in level on the floor	10

6.4. Physical health

With regards to physical health, the issue that was most commonly cited by care work support volunteers to be a problem facing disaster victims was the lack of opportunity to move the body. This was considered to be a problem by 52% of all respondents. This was the only response which almost 50% of all respondents regarded as an issue that required addressing.

Table5. Victims' condition (Physical Health)

Victims' Condition（Physical Health）	%
Lack of opportunity to move the body	26
Suffering poor health	20
Lack of access to primary care docto	17
Lack of enough opportunity of bathing	17
Having problem in excreting	12
Having diseases	11
Having pain	10

6.5. Mental health

Insomnia caused by anxiety was the issue that was most commonly cited by care work support volunteers to be an issue facing disaster victims, with 56% of all respondents considering this to be a problem. This was followed by build-up of stress due to unfamiliarity with communal living arrangements. Insomnia caused by anxiety was not particularly discussed in detail during the group interview, but many respondents raised this issue.

Table6. Victims' condition (Mental Health)

Victims' Condition（Mental Health）	%
Insomnia caused by anxiety	56
Getting stressed out to living togher in shelters	52
Feel unmotivated because of protracted life as evacuees	44
Remain deep in the shock by the earthquake	40
Feel conflict because of expecting return to the condition before the earthquake but it was impposible	34
Be left bihind out of the movement toward rebuilding their lives	30
Want to discuss about their problems but cannot	30
Tolerating lower living situation	30

6.6. Relationship with family

There were no issues which were cited by more than 50% of respondents to be a problem facing the disaster victims. The issue that was most commonly cited to be a problem was changes to relationships within family (36%), followed by victims not wishing to burden their children (34%).

Table7. Victims' condition (Family Relationship)

Victims' Condition（Family Relationship）	%
Aggravating relations with family retionship	36
Hesitating to cause children into any trouble	34
strengthen the bonds between family members	32
Adding to his caretakers' burden	30
Become clinically evident everyday problems about family relations	22

6.7. Relationship with society

With regards to relationship with society, there were no issues which were cited by more than 50% of respondents to be a problem facing the disaster victims. The most commonly cited issue was the unavailability of services that are normally available (38%), followed by family members losing their jobs as a result of the workplace suffering damage from the earthquake (34%).

Table8. Victims' condition (Social Relationship)

Victims' Condition（Social Relationship）	%
Not Receive everyday services in welfare program	38
Losing jobs	32
No opportunity of going out	28
Any friends not visit shelters	28
Feel lonely	26

7. Summary

The most crucial problem that was revealed was that frameworks for providing assistance that aims towards rebuilding of independent lives in the next stage after the evacuation stage were not shared among relief workers nor had there been such a system in place. Specifically, although Local Welfare and Health Headquarters and administration departments (i.e., prefectural and municipal authority staff) played a role of co-ordinating the allocation of tasks to care work volunteers, the staff lacked sufficient knowledge in the field of welfare; this resulted in undermining of the effectiveness of task allocation. A further factor that undermined the effectiveness of the relief effort was the fact that while other professional bodies (such as nurses) were also active, there was a lack of opportunity for such groups to communicate effectively between each other so as to co-ordinate their efforts.

In the future, it is necessary for specialist volunteers in the fields of medicine, health, and welfare, to 1) refine their respective skills in providing assistance to disaster-afflicted areas and organize them in a way that can be shared, and 2) develop specific means through which specialists in each field can remotely share information in the field about disaster victims (i.e., those receiving assistance), and through which users without specialized knowledge can transmit information.

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