

HOW ARE WE CHANGING OUR ATTITUDE TOWARD ELIMINATION PROBLEM IN DISASTER PREPAREDNESS AFTER THE GREAT EAST JAPAN EARTHQUAKE?

Hypothesis / aims of study

Following a series of large-scale earthquake, such as Great Hanshin-Awaji earthquake and several great earthquake, there has been increasing interest in disaster-related morbidity and mortality among citizens in Japan. However, there have been very few reported on health damage with environmental issues including inadequate toilet and water supply after disaster. Faced with the Great East Japan Earthquake and Disaster (GEJED), which occurred on 11 March 2011, several organizations and professionals called for attention about elimination problem such as urinary incontinence or bowel dysfunction. The aim of this study is to assess the attitude of citizens for disaster preparedness toward elimination problem before and after this catastrophe.

Study design, materials and methods

We are giving public program for citizens taking up "Continence care in disasters" in Aichi prefecture, centre part of Japan, predicted great earthquake occurrence within a couple of decades. We requested the participants to respond to a questionnaire in order to assess the attitude on continence preparedness for disasters. The questionnaire included questions about continence problems of them or their families, special care for those problems and their preparedness for disaster in action. We carried out this questionnaire survey at following each venues, Aichi in 2005; group A, Aichi in 2012; group B, Tokyo in 2012; group C (they had experience strong earthquake with GEJED in Tokyo, east part of Japan).

Results

Completed questionnaires were received from 157/120/164 in group A / B / C, respectively. The percentage of respondents aged 60 or over is 28.9% / 32.9% / 25.4% in group A / B / C, respectively. Table 1 shows their continence problem. Those who have consulted medical services are 8.3% / 9.4% / 5.0% in group A / B / C. Table 2 shows their disaster preparedness in action. The rate of those who prepare portable toilet is increasing after GEJED in each of group B and C, but still lower than each rate of preparation for food and water. Meanwhile each rate of preparation for absorbent products is not increasing significantly.

Table 1 Continence problem(%)

Q: Do you have any elimination problem? (multiple answers allowed)				
Answer	Group A	Group B	Group C	
None	46.5	70.7	68.3	
Pollakisuria	24.2	9.8	10.0	
Urinary incontinence	4.5	8.5	2.2	
Urinary difficulty	2.5	3.7	3.4	
Constipation	14.0	6.1	1.7	
Feecal incontinence	0.0	2.2	0.0	
Diarrhea	4.5	3.7	10.0	
Flatus incontinence	5.0	8.5	3.4	
Familial problem	7.6	8.5	5.0	

Table 2: Disaster preparedness in action(%)

Q: What are you preparing for disasters in action? (multiple answer allowed)				
Answer	Group A	Group B	Group C	
Store foods and drinkable water	54.1	54.9	70.1	
Securing furniture (cabinets, bookcase, etc.)	36.3	36.6	43.0	
Store daily life water stock	31.2	35.4	35.3	
Keep fire extinguisher	24.8	23.2	15.2	
Plan for contacting with my family during a disaster	19.7	36.6	26.7	
Prepare extra prescription medication	10.7	15.9	10.1	
Prepare menstrual sanitary pad	8.0	9.8	3.3	
Prepare portable toilet	7.0	22.0	30.3	
Prepare absorbent products for adult	6.4	13.4	0.3	
Diapers for infant	2.1	2.4	3.3	

Interpretation of results

The questionnaire revealed that the rate of disaster preparedness on continence care is still low after one of the most powerful earthquakes in recorded history. It is possible they have inadequate basic knowledge of continence care in daily life and emergency status.

Concluding message

Immediately after the earthquake, a number of problems related to medical care became apparent because of infrastructure damage. The environmental issues aggravate toilet activities not only for invalid people but also for healthy people. Urinary incontinence or bowel dysfunction have negative impact on the quality of life (QOL) during life recovery processes after disaster

and affect sanitation. Despite the experiences of devastating disaster, they have not prepared adequately for their elimination for disaster. Continence care also should be more informed and educated for public as disaster preparedness.

Disclosures

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