

ATTITUDE TOWARD ELIMINATION PROBLEM IN DISASTER PREPAREDNESS

Hypothesis / aims of study

Earthquakes have caused more than a million deaths and more than a billion dollars in property loss in the past 20 years worldwide. Japan is known for its high earthquake risk. Recently, after the Great Hanshin-Awaji earthquake in January 1995, disaster-related morbidity and mortality is highlighted, such as crash syndrome, posttraumatic stress disorder (PTSD), acute respiratory infections and gastroenteritis, etc. We can get much information calling for attention to several medical problem after disaster. However, there are very few reported on environmental issues including inadequate toilet and water supply after disaster, those lead to 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.

Study design, materials and methods

We are giving seminars on several issues of continence care for citizens once a month. We run a public program for them July 2005, taking up "Continence care in disasters". This program brought together 254 people, and we requested the participants to respond to a questionnaire in order to assess the attitude on continence preparedness for disasters. The questionnaire included questions on their interests about disaster prevention and continence care, medical problem of elimination of them or their families, special care for those problem and their preparedness for disaster in action.

Results

A total of 158/254 questionnaires were returned. Of the respondents to the questionnaire, 23(14.5%) were 30 years and younger, 31(19.6%) were forties, 47(29.7%) were fifties and 54 (34.2%) were 60 years and older. 86(54.4%) answered they were interested in both of disaster prevention and continence care (Table 1). 127(80.3)% answered "I think it is important to handle toilet problem in disaster". 50(31.6%) were suffering from urinary symptoms (incontinence, pollakisuria, voiding difficulty) and 28(17.7%) were suffering from bowel dysfunction (constipation, faecal incontinence) but only 16(10.1%) consulted medical services. Table 2 shows their disaster preparedness in action. 85(53.8%) prepared foods and drinkable water, and 49(31%) prepared daily life water. Meanwhile only 11(7%) prepared portable toilet and 10 (6.3%) prepared absorbent products for adult. The rate of disaster preparedness on continence care revealed low.

Interpretation of results

It revealed that they have not prepared for elimination in disaster actually, even though many of participants are interested in continence care in disaster.

Concluding message

Immediately after the earthquake, a number of problems related to medical care became apparent. Infrastructure are severely damaged: electricity service is out, water and gas services are disrupted throughout the town. These 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 frequent experiences of large-scale earthquake, they have not prepared adequately for their elimination for disaster. Continence care also should be more informed and educated for public as disaster preparedness.

Table 1: The interest of respondents

Q: What category are you interested in?	
I'm interested in both of disaster prevention and continence care	86(54.4%)
I'm interested only in disaster prevention	38(24.1%)
I'm interested only in continence care	27(17.1%)
I have no interest in both categories	7(4.4%)

Table 2: Disaster preparedness in action

Q: What are you preparing for disasters in action (multiple answer allowed)?	
Store foods and drinkable water	85(53.8%)
Securing furniture (cabinets, bookcases, shelves to the wall, etc.)	57(36.1%)
Store daily life water stock	49(31.0%)
Keep fire extinguisher	39(24.7%)
Plan for contacting with my family if separated during a disaster	35(22.2%)
Prepare extra prescription medication	16(10.1%)
Prepare menstrual sanitary pad	15(9.5%)
Prepare portable toilet	11(7.0%)
Prepare absorbent products for adult	10(6.3%)
Diapers for infant	5(3.2%)

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HUMAN SUBJECTS: This study was approved by the Nagoya University Graduate School of Medicine Ethics Committee and followed the Declaration of Helsinki Informed consent was obtained from the patients.