



Contents lists available at ScienceDirect

Journal of Acute Disease

journal homepage: [www.jadweb.org](http://www.jadweb.org)

Medical emergency research <http://dx.doi.org/10.1016/j.joad.2015.04.004>

## Determination of individual preparation behaviors of emergency health services personnel towards disasters

Hüseyin Koçak<sup>1</sup>, Cüneyt Çaliskan<sup>1\*</sup>, Edip Kaya<sup>2</sup>, Ömer Yavuz<sup>1</sup>, Kerim Hakan Altintas<sup>3</sup>

<sup>1</sup>Canakkale Onsekiz Mart University, Health of School, Emergency and Disaster Management Department, Canakkale, Turkey

<sup>2</sup>Hacettepe University, Public Health Institute, Ankara, Turkey

<sup>3</sup>Hacettepe University, School of Medicine, Public Health Department, Ankara, Turkey

### ARTICLE INFO

#### Article history:

Received 21 Apr 2015

Received in revised form 23 Apr 2015

Accepted 26 Apr 2015

Available online 9 Jul 2015

#### Keywords:

Disaster preparedness

Ambulance

Individual preparation behaviors

EMS staff

### ABSTRACT

**Objective:** To determine certain behaviors regarding preparation of Canakkale 112 ambulance service personnel towards emergency situations and disasters.

**Methods:** This study is an epidemiological descriptive study. The population of the study consists of 281 people working for Command Control Center and Emergency Medical Services Station of Canakkale 112 Ambulance Service. About 176 people agreed to participate in the study were interviewed within the scope of the study. Necessary information was obtained by a survey. In the statistical analysis of the study, descriptive statistics, Mann–Whitney, Kruskal–Wallis and *Chi-square* tests were used.

**Results:** The participation rate of the study was 62.6% (176 people). The participants were in the range of 17–64 years of age. The average age of the participants was (31.6 ± 9.1) years. About 54% of the participants (95 people) were under the age of 29 and 54% of them (95 people) were male, 23.3% of them (41 people) held a bachelor degree and 35.7% (63 people) of them were Emergency Medical Technicians, respectively. In the study, a statistical relationship was found between some questions of the survey and some variables such as age, gender, degree, membership status for non-governmental organizations, experience of emergency situations, being trained against disasters and desire to have such a training ( $P < 0.005$ ).

**Conclusions:** As a result of the study, a significant relationship was found between being trained related to disaster and emergency situations and development of positive attitudes about training for disasters and emergencies. This indicates that people, no matter what educational level they are in, have to be trained for disasters and emergencies.

## 1. Introduction

Disasters are natural, technological or human related events affecting human lives by interrupting their daily lives and social activities and causing physical, economic and social losses. Disaster cannot be overcome by means and resources of a community; however, they often need help from outside<sup>[1]</sup>. People had to face both human related and natural disasters all

over the world. However, especially in recent years, there is a rapid increase in the frequency of occurrence of disasters and loss of property and lives due to these disasters<sup>[1–5]</sup>.

20th century is called “century of disasters” due to the disasters occurred in this century and tragedies took place after these disasters<sup>[6]</sup>. In the first quarter of 21st century, the public has witnessed a large number of large-scale disasters. In 2004, the earthquake happened in Indonesia with a magnitude of 9.1 and tsunami caused by this earthquake in Indian Ocean caused about 230000 casualties in 14 countries. Eight months after this incident, America was exposed to one of history's most severe hurricanes. Katrina Hurricane killed 1883 people and resulted in 125 billion US dollars economic damage<sup>[7]</sup>. Another earthquake with a magnitude of 9 happened in Japan in the month of March in 2011. In addition, Fukushima Nuclear Power Plant was

\*Corresponding author: Cüneyt Çaliskan, Canakkale Onsekiz Mart University, Health of School, Emergency and Disaster Management Department, Canakkale, Turkey.

Tel: +90 (286) 218 00 18 26 30

Fax: +90 (286) 218 1379

E-mail: [caliskan007@hotmail.com](mailto:caliskan007@hotmail.com), [cuneytcaliskan@comu.edu.tr](mailto:cuneytcaliskan@comu.edu.tr), [cuneyt.caliskan@hacettepe.edu.tr](mailto:cuneyt.caliskan@hacettepe.edu.tr)

Peer review under responsibility of Hainan Medical College.

damaged by the earthquake and has led to radioactive contamination. In addition to these, many earthquakes, hurricanes, typhoons, floods, forest fires and so on occurred in this period<sup>[8]</sup>.

The substantially increased devastation caused by the disasters led governments and international organizations to find alternative solutions. In particular, as a result of the studies conducted by the United Nations, policies created in order to prevent losses caused by disasters were adopted all over the world and implemented as far as possible<sup>[9]</sup>. The ultimate aim of these policies is to bring communities become more resilient against disasters. One of the most important aspects of a disaster resistant community is individuals prepared for disasters. Taking personal precautions against disasters by each individual and making the necessary preparations allow sustaining lives by reducing death and injuries that may arise after the disaster<sup>[10–12]</sup>. However, preparation of people who have responsibilities in the field of disaster and emergency response is more important since they directly affect the lives of others besides themselves.

The staff of emergency medical services is one of the most important people needed in emergency situations and especially disasters. These people have an important role in terms of providing emergency services immediately after disasters, and then delivering these services in the field hospitals as well as improving health level of the public. The staff of emergency medical services should train other people in terms of preparation for emergencies and disasters. In other words, the level of preparedness of emergency medical services personnel is a factor affecting the number of deaths and injuries caused by disasters. This study was designed to determine some behaviors of Canakkale 112 ambulance service personnel towards emergency situations and disasters.

The main aim of having emergency personnel who have certain responsibilities and roles in the society, and keeping people prepared for emergency situations and disasters is minimizing the damage caused by disasters. The systematic

diagram given in Figure 1 shows the conceptual framework of a person's individual preparation process against disasters. Disaster preparedness process program consists of five dimensions: policy development, legal arrangements on local, regional and national scale; vulnerability assessment, determination of damage may be caused by potentially dangerous situations; disaster planning, taking measures, giving response and improvement efforts against designated hazards in accordance with available resources; education and training, development of knowledge and skills of individuals against the dangers; monitoring and evaluation, including testing of prepared plans with real-time applications and elimination of deficiencies<sup>[13]</sup>. Education and training are divided into three size in itself as institutional, social and individual preparation process. The individual preparation process and conceptual framework that forms the main logic of the study is given under education and training section of preparation process for disasters (Figure 1). The individual becomes aware of the danger that could harm him/her first, and determines the preparation options by analyzing the danger. Thereafter, tools that can minimize the danger are equipped, and relevant training programs are received. Resources obtained are used when the danger is encountered and preparations get started for future disasters.

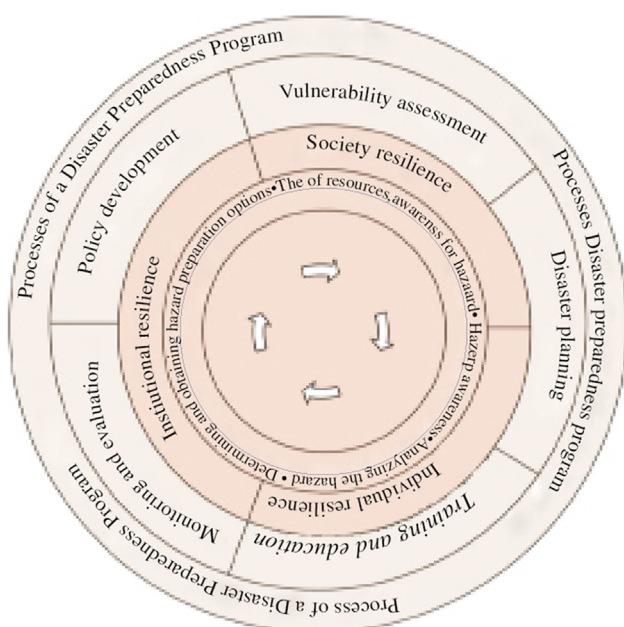
Health workers and their families should be safe for health workers in order to produce services after disasters. They do have a responsibility of encouraging people to be trained and be well-prepared for emergency situations and disasters in the pre-disaster period. In society, the awareness of being prepared for emergency situations and disasters should be the life style of individuals to create the culture of “safe life”. This concept should be a part of people's lives by converting knowledge into behaviors. Basic information about disasters should be taught to everyone and appropriate behavioral changes should be provided<sup>[13]</sup>. Thus, life and property losses caused by disasters can be reduced. Simple measures that can be taken in the pre-disaster period may help to survive in the aftermath of a disaster. For example, the fall of goods that are not fixed may cause injuries and even deaths during a disaster<sup>[13,14]</sup>. In the Marmara earthquake, 50% of the injuries and 3% of the deaths were caused by the displacement of the non-structural materials<sup>[5]</sup>.

The participation of all segments of society, formation of awareness and behavior changes are needed in order to cope with disasters. The vulnerability of the population against disasters can be reduced by taking necessary precautions with conscious individuals and making preparations to minimize the damages<sup>[5]</sup>.

Although disasters are frequently encountered in Turkey, the absence of disaster preparedness and precautions as well as the lack of disaster culture are conditions reducing the society's resistance to disasters. In a personal level, the lack of education, illiteracy and ignoring the importance of safety are other challenges restraining the preparations<sup>[13]</sup>.

## 2. Materials and methods

This descriptive study was conducted with Command Control Center and 17 EMS stations of Emergency Medical Services of Canakkale 112 Ambulance Service. Data were collected from 176 (62.6%) people accepted to participate in the survey in December 2011 by sealed envelope technique. The preliminary testing of the survey was conducted at Hacettepe University



**Figure 1.** Individual disaster preparedness process program. Source: Adapted from Mark E. Keim and Paul Giannone<sup>[13]</sup>.

Download English Version:

<https://daneshyari.com/en/article/3475179>

Download Persian Version:

<https://daneshyari.com/article/3475179>

[Daneshyari.com](https://daneshyari.com)