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EVALUATION OF KERMANSHAH UNIVERSITY OF MEDICAL SCIENCES STUDENTS' KNOWLEDGE AND ATTITUDES REGARDING HEALTH MEASURES IN EMERGENCY SITUATIONS (2016)

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Abstract

From the past to the present, natural disaster has been considered as one of several factors threatening the health of human society. This issue not only in a country like Iran, but also in all parts of the world has been described as a critical issue. Organizing housing, health and nutrition conditions is one of the issues that addressing them is considered as a need and crucial measure after accidents and natural disasters. For applying these activities, there is need to the presence of health experts. The present study was carried out aimed to assess the knowledge and attitudes of students in Kermanshah University of Medical Sciences in the field of health interventions in emergency situations. descriptive-analytical study was conducted on 346 students in Kermanshah University of Medical Science in academic year 2015-2016. The participants were selected randomly and having ascertained validity of the questionnaire by the experts, the questionnaire was distributed among the students. The collected data was analyzed in SPSS-Ver16.The results showed that 40.2%of students have good knowledge, 32.2 % have moderate knowledge and 28.6%havepoor knowledge, as well as 84.7% of them have an intermediate attitude towards health actions in an emergency situation. Attitude had significant differences among women and men, and there was no significant between them in terms of knowledge. In terms of knowledge, a significant difference was observed between age groups, but significant difference was not observed in the attitudes at the level of $\alpha = 0.05$.Having a high level of knowledge leads to enhance quality of necessary measures in the event of an emergency. Due to the low level of knowledge of some of the students in this regard, adding training courses can have a significant impact on raising the levels.

Keywords: Knowledge, Attitude, Health Measures, Emergencies.

Introduction

Today, the world has undergone various events, which always threaten human and material resources. Although massive progresses of humans have increased somewhat his ability to deal with disasters and respond to unexpected disasters, but the man still has not been able to control the events correctly and completely (1).Therefore, every year 200 million people are involved in these disasters and hundreds of people die because of it (2). From41 types of natural disasters that occur around the world, 31 of them occur in Iran (3). In the past 90 years in Iran, the earthquake killed more than 180 thousand people. One of the obvious examples is the recent earthquake in Bam which had the strength of 6.5 on the Richter scale and more than 30 thousand people were killed and more than 10 thousand people were injured, and a significant number of deaths were due to the ignorance of people regarding health measures (4).Effects of natural disasters can persist long after the event, some of the most important effects of disasters on the environment include pollution of drinking water sources and destruction of shelter and displacement, disruption and disorder in solid waste disposal, increasing the carrier, The stench of human or animal bodies and excessive increase and growth of urbanization, and finally mental disorders. At Health Group of Crisis Committee, experts are responsible for managerial roles, coordinating and can have an important role on three strategies of the committee, namely enhancing people's knowledge and prevention of injuries, reducing the risk of accidents and increasing individual rehabilitation which involves three prevention levels (5-7).Due to the problems expressed, the need for training is felt in order to promote knowledge among the people. That is why, in various academic careers, the material in the form of courses, or courses with less volume among health disciplines has been included in the curriculum of students. In recent years, much research have been done both among students and among the employees of health care centers that show that knowledge of people regarding health measures in emergency situations is low. The importance of this issue led to, the present study to be implemented aimed to assess the knowledge of students studying in Kermanshah University of Medical Sciences in the field of health measures in the event of an emergency.

Material and Methods

The study is a descriptive-analytical work to survey knowledge of the students of Kermanshah University of Medical Science about nutrition and storing foodstuff in crises. Study population was comprised of all students of the university, and 346 students were selected randomly. The selected students were from Faculty of Medicine (25.1%), Faculty of Paramedicine (7.5%), Faculty of Nursing and Midwifery (19.7%), and Faculty of Health (23.3%), Faculty of Dentistry (18.6%), and Faculty of Pharmacology (5.7%). In this study, a researcher-made questionnaire was used to

gather and collect data. The questionnaire was designed in three parts: The first part included demographic information, the second part included 10 questions regarding the level of knowledge and Part III includes 10 questions about attitude. In section related to the level of knowledge, a score was assigned to each correct answer and zero was assigned to an incorrect answer. In section related to attitude, respondents used a 5-point Likert scale that it was shown by five items of (5) I totally agree, (4) I agree (3) I have no idea (2), I disagree (1) and I totally disagree (1). Using this scale, each respondent could gain a score between 10 and 50 for questions related to the attitude. For data analysis, SPSS version 16 was used. The standard deviation, one-sample t test, Mann-Whitney test, and kruskal Wallis test were used to compare the data collected.

Results

Girl and boy students constituted 68.5% and 31.5% of the population respectively. The selected students were from Faculty of Medicine (25.1%), Faculty of Paramedicine (7.5%), Faculty of Nursing and Midwifery (19.7%), and Faculty of Health (23.3%), Faculty of Dentistry (18.6%), and Faculty of Pharmacology (5.7%).

First, the percentage of respondents, and standard deviation of them were calculated for questions related to knowledge. For questions 5 and 10, this ratio is less than 0.5, and for other questions, this ratio is more than 0.5, respectively, among them, question 5 (method of waste disposal in emergency situations) with 44.2 percent had the lowest number of respondents, and question 6 (how to provide safe drinking water in emergency situations) with 75.1%, has had the largest number of respondents (table 2). Next, the z test was used, and the assumption of equality of these ratios with the value 0.5 (percent expected to respond in the event of responsiveness chance or ratio if the same proportion of people are aware and unaware) was performed, and showed that this assumption is rejected for all the questions, so we conclude that, subjects have insufficient knowledge of cases raised in all questions.

The results showed that the average level of knowledge about health measures in emergency conditions is equal to 5.90 and its standard deviation and changes range has been 2.27 and 10-1, respectively. Given that in this study, total level of knowledge knowledge equal to 6 or more was considered as diagnostic criteria for good level of knowledge, it was concluded that total knowledge of the participants about health actions in emergency situations is less than diagnostic criteria. Then, the Mann-Whitney test results showed that there were significant differences in the knowledge of girls and boys (p-value = 0.664).

In addition, the level of knowledge of the students who their school years were divided into two groups of over 4 years and under 4 years had been the same. Also, the Kruskal-Wallis test showed that there are significant differences exist

in terms of the level of knowledge among different schools. So, School of Dentistry had the highest mean scores and School of Paramedical had the lowest mean scores. Finally, students' knowledge with regard to age was also examined, and the results showed that there were significant differences in the level of α=0.05 (p-value = 0.001).It should be noted that the mean scores of students has increased with increase in age.

Table-1: The mean scores of students' knowledge about health actions in emergency situations in terms of age groups.

Index	Age category	
Knowledge	19-23	24-29
	232.49	165.14

Table -2: The mean scores of students' knowledge about health actions in emergency situations in terms of age groups in terms of faculty.

University faculties	Number	Mean scores of knowledge
Medical	88	221.51
Paramedical	86	132.65
Nursing	56	153.31
Health	70	169.18
Pharmacy	18	159.21
Dental	28	235.83

Table-3: Status of students' knowledge about health actions in emergencies and the results of one sample t-test.

No	Questions	Knowledge	Lack Of Knowledge	Level Of Knowledge	Standard Deviation	Significance Level
1	In emergency situations, prevention includes which of the following?	183	163	52.9	0.499	0.001
2	After the disaster, which of the following diseases most likely are epidemic?	228	118	65.9	0.474	0.001
3	Which one of the locations is suitable for the production and distribution of Food in emergency?	214	132	61.8	0.486	0.001
4	What are the features of Food distributed in emergency situations in the early hours?	240	106	69.4	0.461	0.001

5	Which method is best for waste disposal in emergencies?	153	193	44.2	0.497	0.001
6	Which method is best for providing safe drinking water in emergencies in the crowd in the early hours?	260	86	75.1	0.432	0.001
7	Which of the ways is the easiest method for disinfection of water by the people themselves in an emergency situation?	225	121	65	0.477	0.001
8	Which one of the following methods is the most appropriate way to combat mosquitoes in an emergency situation in the camps in the long time?	174	172	50.3	0.500	0.001
9	Where is the best point where health supervisor health in emergency situations with the least manpower can affect the food health?	197	197	56.9	0.495	0.001
10	In an emergency situation, Which of the ways is the easiest method for construction of waste disposal system?	169	169	48.8	0.500	0.001

The results showed that the average students' attitudes toward health measures in emergency situations is equal to at 33.45 with a standard deviation of 5.20, and changesrangehas been 22-50. By comparing this average withassumed average (expected value if the response based on luck to all questions is equal to 30), it was observed that, the attitude of students towards health measures in emergency situations has been higher than expected mean (assumed average).In addition, one-sample t test showed that the difference was significant (p-value = 0.001) and can conclude that the general attitude of the participants was positive about the issues raised.

Table-4: The students' attitude towards health actions in emergencies and one-sample t-test results.

No	Question	Positive Attitude	No Comments	Negative Attitude	Average	Standard Deviation	The Significance Level
1	Is cutting off water and electricity in the event of an emergency, makes providing healthy foods more difficult?	72	211	63	3.62	1.25	0.001
2	Does natural ventilation inside the tent is	42	96	20	3.6	1.004	0.001

	the best method of ventilation?			8	3		
3	Does open steep channel is enough in an emergency situation in order to distract wastewater from latrines?	124	95	127	2.93	1.0	0.001
4	Dose being clear spring water in emergency situations can be considered as safe drinking water?	132	62	152	3.12	1.22	0.001
5	Does laboratory controls on food and water in emergency situations is difficult?	80	72	194	3.44	1.11	0.001
6	Dose the camp should be large for ease of service and control of communicable diseases?	89	111	146	3.16	1.21	0.001
7	Does the soil should be used to cover in the waste disposal method in the trenches after each use?	66	133	146	3.34	1.09	0.001
8	Dose it is better that smaller tents be used in each camp in emergency situations?	94	56	196	3.45	1.25	0.001
9	In emergency situations most of the time, does filling the lands by waste for final disposal is the best method?	107	94	145	3.23	1.26	0.001
10	Does boiling method for providing safe drinking water in camps for health officials is the easiest way?	70	80	196	3.5	1.15	0.001

Then, the Mann-Whitney test results showed that there was significant difference in the attitude of male and female students about health actions in emergency situations (p-value = 0.001). Comparison of mean scores shows that the attitude of the boys has been better than girls. Additionally, the attitude of students who their school years are divided into two groups of over 4 years and 4 years was the same (p-value = 0.815). Also, the Kruskal-Wallis test showed that there wassignificant difference in relation to the attitude of students in different schools, so that students of School of Health had the highest mean scores and medical school's students had the lowest mean scores (p-value = 0.034). Finally, the attitude of students according to age was also studied, the results show that, it was not significant at 0.05 = α. Finally, Kendall test was used to assess the relationship between the level of knowledge and attitude variables. To do this, the variable of attitude was divided into three groups: those with positive, neutral and negative and the level of

knowledge variable was divided into three people with good, moderate, weak knowledge,test results showed that there was no statistically significant relationship between the level of knowledge and students' attitude (p-value = 0.936). In other words, it can't be said that, whatever the level of knowledge is increased, his attitude will be more positive or more negative and vice versa.

Discussion

Results of this study showed that less than 50 percent of students have a good knowledge and positive attitude about health actions in emergencies.In a study conducted by the Hashemi et al (2011), the resulting data showed that, there was a significant difference between the level of knowledge of experts in Tabriz health centers and level of knowledge of experts in the province centers. In addition, there was a significant relationship between knowledge and education and workplace. As well as there was not found a significant relationship between the knowledge of environmental health experts with their experience in health centers (8). According to the study of Imani et al (2011), the level of knowledge of 3.2 percent of nurses about crisis management was very much, 16.6% was high, 52.3% was moderate and 27.9 percent was low. It also noted that there is a direct relationship between the level of knowledge of people and their education, type of shift work, participating in crisis maneuvers and membership in the crisis committee (9). Study conducted by VosoughiNeary et al. (2011), showed that 11.2 percent of students had good understanding, 766.7T had moderate knowledge and 22.1 percent had poor level of knowledge as well as 76.4% had intermediate attitude towards health actions in emergency (10).Study of AsleHashemi (2009) didn't show any significant change in the level of knowledge and attitude of subjects in the control group due to lack of intervention, but mean knowledge ofsubjects in the case group a fundamental was increased 12.97 compared to pre-interventionstage through training health measures in emergency situations, and average attitude of case group through education was improved57.86% compared to pre-intervention stage(11). Study of Vosoughi (2012) showed that 43% of staff had good knowledge, 46% had moderate and 11% had poor knowledge as well as 50% had an intermediate attitude towards health actions in emergency. There was no significant difference in terms of knowledge between the different levels of education. Both in terms of knowledge and attitude, there was no significant difference between different age and educational groups at a significance level of 0.05 (12). Among the subjects, 60 percent believed that the tents used in emergencies in addition to the natural ventilation need secondary conditioning. Only 25 percent of people were agree with this issue that a big camp can facilitate serving and control of communicable diseases, and 42 percent of the people were opposed to it. The residents of the camp opposed also 56 percent of the people to the use of boiling method as the only way for purifying

water.Overall, of the total number of students in the study, 76% had good and moderate knowledge. While this amount represents the appropriate level of knowledge in the desired community, therefore, to raise this level, and thus provide more quality services, there is need to provide more educational measures in the form of various activities such as curriculum, educational pamphlets for people.

Conclusion

Having a high level of knowledge leads to enhance quality of necessary measures in the event of an emergency. Due to the low level of knowledge of some of the students in this regard, adding training courses can have a significant impact on raising the levels.

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