

# SOCIOLOGICAL RESEARCH OF STUDENTS FROM MEDICAL UNIVERSITY – VARNA TO DETERMINE THE LEVEL OF KNOWLEDGE AND READINESS FOR PROTECTION IN CASE OF DISASTROUS SITUATIONS

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## ABSTRACT

The sociological research is carried out by the method of individual inquiry with questionnaire, included 32 questions, with students of Medical University. In connection with presentation of the discipline Medicine of the disastrous situations (catastrophe), it is followed the raise of knowledge and the readiness for protection in case of disasters. Before the beginning of the teaching about Medicine of the disastrous situations the knowledge of the students about the questions connected with damages with radioactive substances chlorine and ammonia, are totally insufficient, especially at the foreign students. The level of the preliminary knowledge about the origin of the epidemics is higher. Better are the knowledge for the right attitude in case of danger of intestinal infectious diseases than the protection of air dropped infections. The preliminary subjective evaluation of the students for the lack of readiness for protection became positive and the self-confidence increase till 88,33% foreign students and 93,33% Bulgarian students.

**Keywords:** disaster medicine, protection in case of disastrous situations

## INTRODUCTION

The protection against catastrophes (disasters) is led in different directions: preliminary measures, prognosis, observation of the elemental process and active intervention on it, rescue operations, medical activities and other /3/. The level of the preliminary preparation and knowledge are of prime importance for survival and rendering help of the sufferers /4, 5/. The training and the practical preparation of medical students about the questions concern the protection and medical help in case of disastrous situations are of extreme importance. When the students in training are convinced of the necessity for precise knowledge, the process of teaching going easier and the gained knowledge are more lasting /1, 2/. The purpose of the research is observation, the level of raise of knowledge and readiness for protection in case of disaster, of students at the beginning and after the training at the discipline Disaster medicine.

## MATERIAL AND METHODS

The research is led in 09.2005 and in the end of 12.2005 at the Medical University – Varna. The sociological research is made by the method of individual inquiry with questionnaire with 32 questions. Twenty two questions are preliminary formulated and specified all possible answers. 5 questions are open and it is given a possibility for other

opinion and 5 questions are under the form of situation task. The principle of anonymity is observed, which make clear more objectively the thoroughness of knowledge about discussed problems and give more reliable rating for the readiness for protection.

The inquired persons are 120 students between 21-29 years from third course, subject medicine.

In the statistic processing of the results are used no parametric, alternative and graphical analysis.

## RESULTS AND DISCUSSION

At Table 1 is presented the number of the participants, distributed by sex and nationality. Table 1.

*Table 1*

Participants at the research						
	Number		Men		Women	
Total	120	100%	73	60,84%	47	39,16%
Bulgarian students	56	46,67%	21	17,50%	35	29,16%
Foreign students	64	53,33%	52	43,34%	12	10,00%

The distribution by sex is: 60,84% men and 39,16% women.

At the question “What kind of disasters do you know?” at the beginning of the training 66,67% of all give and enumerate several natural disasters and 40% know anthropological disasters too; in the end of the training 100% enumerate natural disasters and 93,33% anthropological.

The majority of the inquired put at the beginning like the biggest danger of disasters in Varna region – storms and hurricanes 51,17%; in the end of the training – landslides 66,67%. The evaluation the level of danger from anthropological disasters and in the both cases, the students mark like the biggest, the danger of chemical damages – 35%.

In the beginning of the training insufficient are the knowledge of the inquired refer to pollution with radioactive substances after damages in NPP (nuclear power plants), mainly in the group of foreign students. The answers of the question “Which of the following food products could be polluted in case of through out radioactive substances at the environment?” are presented at Table 2.

Table 2

Which of the following food products could be polluted in case of through out radioactive substances at the environment?						
Sort of products	Total		Bulgarian students		Foreigners	
	Milk and milk products	70	58,33%	50	41,66%	20
Bread and bread products	68	56,67%	49	40,83%	19	15,83%
Vegetable products	85	70,83%	55	45,83%	30	25,00%
Meat and meat products	65	54,17%	48	40,00%	17	14,17%

/P<0,05/ between the answers of the Bulgarian and foreign students in the end of the training.

The knowledge of the inquired students about their behavior in case of damage and pollution of the air with chlorine and ammonia in the beginning of the course are insufficient. The results are presented at Fig. 1 and Fig. 2.

The knowledge for right behavior in case of pollution with chlorine and ammonia in the end of the course arise in the interval of 92-100%.

The level of knowledge in the beginning of the training is higher about the questions refer to arise of epidemics (Bulgarian and foreign students). According to 70,83% the biggest danger of arise of epidemics will be the use of biological weapon, according to 67,50% - the floods too.

About the question “Which are the possible ways for infection with biological weapon?” – 77,50% respiratory ways, 62,50% - skin and mucous membrane, 50% - alimentary and only 29,17% - by insects suck blood. The students are good informed in the beginning of the training that cholera – 68,33%, anthrax – 75% and plague – 70% are especially dangerous infections, controlled by World Health Organization (WHO).

Detailed analysis determine that the students` behavior in case of epidemic in the region, will be visibly incorrect and that will threaten their health. Completely incorrect 69,17% will leave the region in case of epidemic and that will lead to dissemination and change for the worse of the epidemic situation. 55,83% will act correctly – looking for means for prophylaxis and 37,50% - information and instructions.

Better are the preliminary knowledge for the right behavior in danger of intestinal infectious diseases: 87,50% know that they have to wash regularly their hands; 74,17% will execute good thermal treatment of the food; 61,67% will boil the water and 57,50% will regularly clean and disinfect the toilets. Less are informed for protection of air-dropped infections: only 61,67% will put cotton-gauze mask;

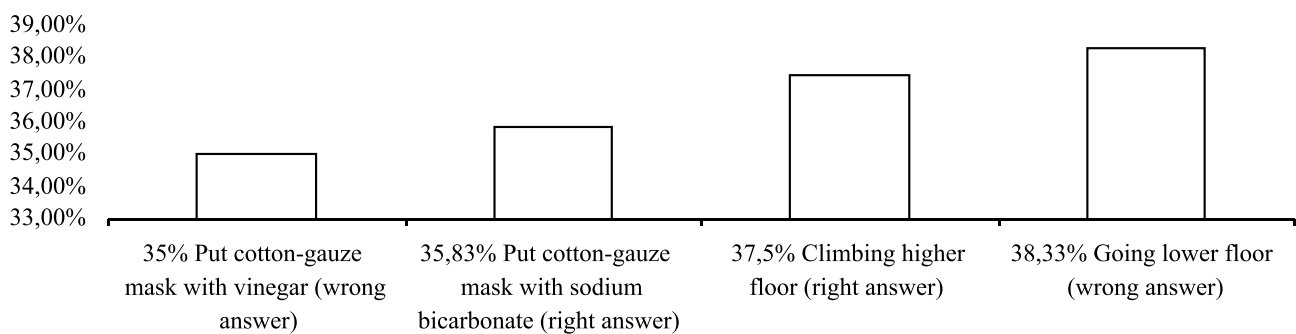


Fig. 1. In result of damage pollution of the air with chlorine at the region where you are appears. What is your behavior?

In the end of the course almost all are informed what have to be made in home conditions in doubt for pollution of food products with radioactive substances: 93,33% know that the products have to be washed lavishly with water; 83,33% - have to peel the surface and 70,83% will bone the meat, salt and boil with salt and soak in acetic solution. In the research there are not visible statistic differences

52,50% will immunize themselves with lymph; 35% will ventilate and disinfect; 31,67% will look for a medical help and only 10% will stay at their homes.

In the end of the training the knowledge of the inquired about the questions according to protection of epidemics are as follows: 90-95% for the foreign students and 95-100% for Bulgarian.

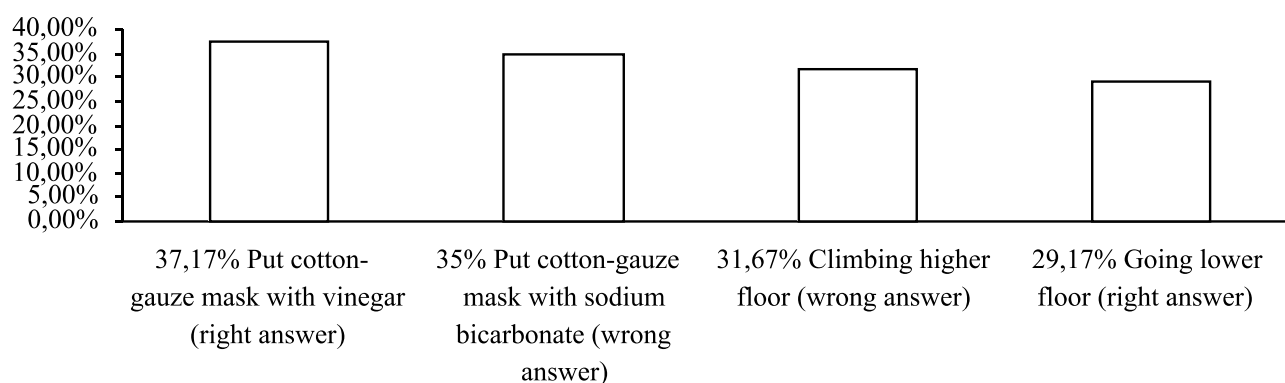


Fig. 2. In case of air pollution with ammonia, what you will do?

In the beginning of the course, particularly significant is the subjective evaluation of the students, about a readiness for protection in case of disastrous situations – more than 50% consider, that they are not prepared. Fig. 3

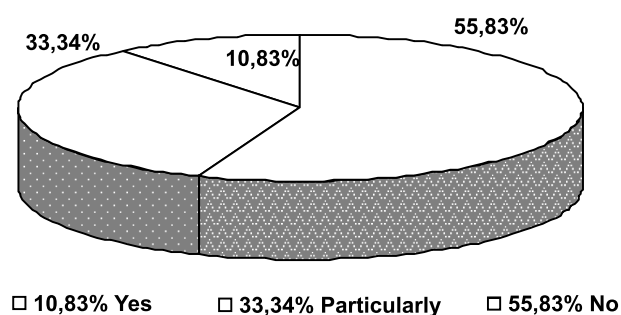


Fig. 3. Do you have readiness for protection in case of disastrous situations?

In the end of the training the self-confidence of the students increases and the subjective evaluation for protection in case of disaster is positive for 88,33% foreign and 93,33% Bulgarian students.

Predominant number (87,50%) want to have at their homes, means for protection like: cotton-gauze mask, medical goods, means for cleaning and disinfection in case of rise of epidemic or other disaster.

The majority of the inquired (83,33%) consider that it is necessary and obligatory, the knowledge of the population for protection in case of disaster to be raised: 12,50% - at will and only 4,17% do not consider raising of knowledge for necessary. Fig. 4

There are no visible differences at the answers of the inquired students according to their sex and age.

## CONCLUSION

1. Before the training to Disaster medicine, the students' knowledge is absolutely insufficient about questions,

according to damages and pollution with radioactive substances, chlorine and ammonia, especially of the foreign students. The right answers increase till 90-100% in the end of the course, without visible differences according to nationality.

2. Higher is the level of the preliminary knowledge about questions, according to rise of epidemics (all students). Better are the knowledge for right behavior in case of danger of intestinal infections disease than the protection of air-dropped infections.
3. There are not visible differences at the answers of the inquired students according to their sex and age.
4. The subjective evaluation for lack of readiness for protection, transforms into positive and the self-confidence arise till 88,33% foreign students and 93,33% Bulgarian students, after the training to Disaster medicine.
5. The majority of the inquired students (83,33%) consider that it is necessary and obligatory, the knowledge of the population for protection in case of disaster to be raised.

## LITERATURE

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