



# STUDY ON THE ATTITUDES OF MEDICAL PROFESSIONALS AND VOLUNTEERS FOR JOINT PARTICIPATION IN RESCUE OPERATIONS DURING DISASTERS AND EMERGENCIES

## M. Andreeva\*, G. Pavlova

Department of Health Management and Healthcare Economics, Faculty of Public Health "Prof. Dr. Tsekomir Vodenicharov, Medical University – Sofia, Sofia, Bulgaria

#### **ABSTRACT**

Coping with the increasing risks of disasters and emergencies requires effective coordination between different groups of professionals, including medical specialists and volunteers. The objective of this article is to examine the attitudes of medical personnel from various healthcare institutions and representatives of volunteer organizations regarding joint participation in rescue operations during disasters and emergencies. MATERIALS AND METHODOLOGY: Documentary, sociological, and statistical methods were used, along with graphical representation of results. Between April 2024 and March 2025, an online survey was conducted with 120 medical personnel working in various public health facilities providing field medical assistance and 155 rescue volunteers with different professional backgrounds. RESULTS: According to 90% of volunteers, the country does not have sufficient resources to deal with disaster situations without their help; 85% of volunteers and 75% of medical professionals state their willingness to work in collaboration; 67% of medical professionals and 83% of volunteers are of the opinion that there are difficulties in coordinating their actions; Conclusion: Despite the current legal framework for disaster and emergency management, there is a need for practical trainings to coordinate the actions of medical personnel and rescuers from volunteer organizations.

**Keywords:** disasters, emergencies, coordination, rescue operations

### INTRODUCTION

In the modern world, where the risks of disasters and emergencies are increasing, it is essential to ensure effective coordination among various groups of professionals, including medical specialists and volunteers. Despite the existing institutional organization, serious challenges remain in coordination and effectiveness during real emergency situations (1). There is a significant need for training activities aimed at improving coordination and collaboration between medical personnel and volunteers during disasters and emergencies (2). Natural disasters, mass accidents, military conflicts, and the COVID pandemic all necessitate efficient and timely actions that are coordinated and well-prepared in advance. The primary participants in providing first aid to

\*Correspondence to: Maria Andreeva, Department of Health management and healthcare economics, Faculty of Public Health "Prof. Dr. Tsekomir Vodenicharov, DMSc," Medical University – Sofia, 1000 Sofia, Bulgaria, +359878211668, E-mail: mariqzh1@abv.bg victims are medical specialists and responding volunteers (3, 4). They represent the first and most essential stage in reducing casualties and limiting damage (5). To achieve a truly effective organization, it is necessary to establish accessible, reliable, and sustainable conditions for the development of volunteerism. An integrated and multidisciplinary approach is increasingly necessary in emergency management. In this context, it is important to analyze the attitudes and readiness of the various stakeholders for joint action (6).

**Objective:** The objective of this study is to analyze the attitudes, perceptions, and readiness for joint participation of these two groups in rescue activities during disasters, and to identify opportunities to improve the process through mutual training and exercises.

## MATERIALS AND METHODS

Documentary and sociological methods were used. The study was implemented in two stages. An online questionnaire survey was conducted among 120 medical officers in different government medical facilities providing

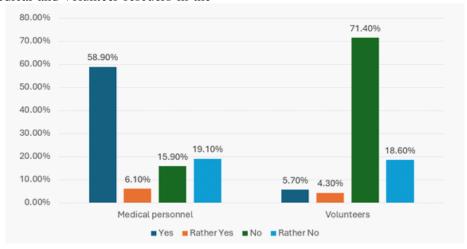
medical care to injured in field and medical facilities during April-December 2024. In December 2024-March 2025, another 155 volunteer rescue workers with different professions were covered in the survey. The questions cover topics related to resourcing, willingness to work together, problems in coordinating joint actions, and willingness to train.

The study does not claim to be representative, but it does provide an opportunity to analyze practical challenges and attitudes to joint action between medical and volunteer rescuers in the context of emergencies, with a view to taking action to increase effectiveness.

## RESULTS AND DISCUSSION

A total of 277 individuals participated in the study, including 189 men and 88 women. More than half of the women (63, or 71.6%) work in various healthcare institutions.

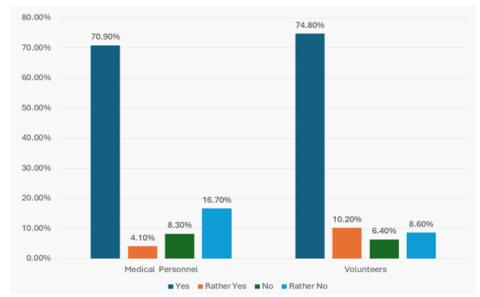
Human resource preparedness of the state to respond effectively to mass disasters and emergencies without the help of volunteers is illustrated in **Figure 1**.



**Figure 1.** Is the country resourced enough to cope with mass disasters and emergencies without the help of volunteers?

According to the study, nearly all volunteers (90% = 71.4% 'No' + 18.6% 'Rather No') believe the state lacks sufficient human resources to cope with mass disasters and emergencies without their assistance. In

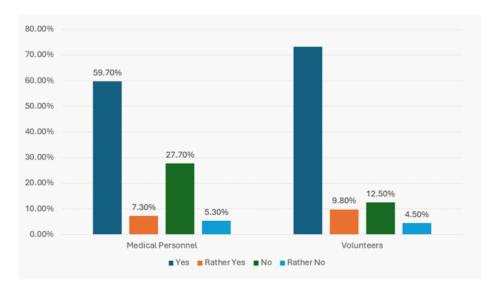
contrast, most medical professionals responded positively (65% = 58.9% 'Yes' + 6.1% 'Rather Yes') regarding the state's preparedness to manage such emergencies.



**Figure 2.** Do government institutions have sufficient material preparedness to cope with mass disasters and emergencies?

Material resource preparedness of the state institutions is reflected in **Figure 2.** Over half of the surveyed volunteers (73% = 59.4% 'No' + 13.6% 'Rather No') state that the state's material provision is insufficient. A quarter of medical staff (25% = 10.9% 'No' + 14.1% 'Rather No') share this opinion.

There is a significant difference in the assessment of resource readiness between medical personnel and volunteers, which may be due to lack of awareness among respondents or perspectives shaped by long-term observations of institutional reactions.



**Figure 3.** Do medical professionals and volunteers have the readiness to work in collaboration in disaster and emergency settings?

Regarding readiness for joint action (**Figure 3**), both groups expressed positive attitudes. 75% of medical staff (70.9% 'Yes' + 4.1% 'Rather Yes') and 85% of volunteers (74.8% 'Yes' +

10.2% 'Rather Yes') are willing to cooperate in emergency scenarios, despite communication challenges (**Figure 4**).

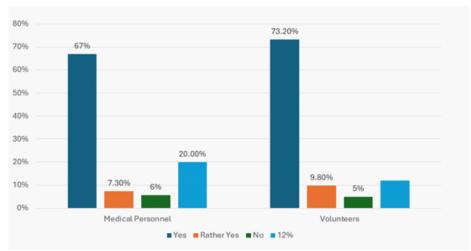


Figure 4. Are there challenges in communication and coordination in disaster and emergency settings?

67% of medical professionals (59.7% 'Yes' + 7.3% 'Rather Yes') and 83% of volunteers (73.2% 'Yes' + 9.8% 'Rather Yes') recognize difficulties in organizing communication and coordinating their joint efforts in crisis situations.

Almost all respondents expressed interest in participating in joint training activities (**Figure 5**). 95% of volunteers (81.2% 'Yes' + 13.8% 'Rather Yes') and 85% of medics (72.8% 'Yes' + 12.2% 'Rather Yes') indicated willingness to participate. Notably, 10.3% of medical professionals responded negatively compared to only 2.6% of volunteers.

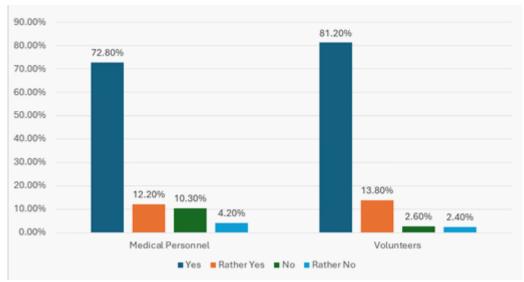


Figure 5. Willingness to participate in joint training actions.

Survey results highlight the importance of collaboration between medical professionals and volunteer organizations in aiding disaster victims. There is a high level of awareness about the benefits and significance of future joint efforts.

However, key differences remain between the two groups concerning perceptions of institutional readiness. These likely stem from differences in experience: medical professionals have more direct access to state resources, while volunteers often rely on self-funding and encounter less state support.

Another major distinction is the typical environment in which help is provided—medical staff mainly work in facilities, while volunteers often work in field conditions in remote areas. Volunteers also report lacking logistics, equipment, and first-aid knowledge, all of which are critical for timely and quality assistance.

A major priority issue for both groups is the lack of effective communication. This deficit stems from accumulated factors: absence of standardized procedures, unclear distribution of responsibilities, limited access to joint training, and differences in operating principles. Volunteers often rely on improvisation and flexibility, while medical professionals adhere to strict protocols and standards.

Without a pre-established, rehearsed action plan, mistakes and inefficient resource allocation occur, leading to delays and lower quality results. Therefore, despite the overall positive attitude in both groups, some skepticism exists about overcoming the challenges.

#### **CONCLUSION**

Based on surveys conducted with representatives from both groups, the study provides a reliable foundation for conclusions and recommendations. The data indicate that practical implementation of legally regulated activities encounters several challenges, including a lack of sufficient information about opportunities for joint work, ineffective communication and interaction mechanisms, a deficit in adequate first-aid training for volunteers, and limited resources. The absence of adequate mechanisms and effective management of joint processes between the two groups is a major barrier to the efficiency of rescue operations. The expressed interest and willingness for joint training by a significant number of volunteers and medical professionals indicates strong potential for improved collaboration. This can help overcome existing problems, build more robust knowledge bases, strengthen communication, and foster effective joint efforts (3).

Furthermore, joint training provides a reliable method for developing cohesive teams with mutual trust—an essential factor that should be considered foundational for creating sustainable cooperation models.

The development of national plans and strategies for joint preparation of medical professionals and volunteers is of fundamental importance. It is highly recommended to conduct regular training sessions and field exercises involving both groups. Creating standardized operational procedures for coordination and communication should be a top priority.

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Support from relevant institutions, and the actual provision of that support, should remain a pressing issue on the public agenda, especially given the increasing frequency and severity of disasters affecting larger populations.

practical. action-oriented approach of systematization training stages and emergency responses. use of interdisciplinary teams, and timely actions at the institutional level—are key to building a stable system for collaboration between medical and volunteer groups.

### FINAL RECOMMENDATIONS

Despite the existing legal framework and the institutional organization at the national level for managing disasters and emergencies, there is a clear need for regular practical training to coordinate the actions of medical personnel and volunteer rescuers. Only in this way can a rapid and effective response to future emergencies be ensured—reducing the likelihood of a crisis and minimizing losses and damage.

The most important element for both groups is the protection of human life, and this guiding principle must serve as a strong foundation for all future joint activities.

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