

Original article



EMERGENCY AND URGENT MEDICAL CONDITION - LEVEL OF AWARENESS AND THE NEED FOR ADDITIONAL KNOWLEDGE AMONG PEOPLE IN THE STARA ZAGORA REGION IN BULGARIA

Deyana Todorova, Teodora Todorova, Albena Andonova
Department of Health Care, Faculty of Medicine, Faculty of Medical & Education, Trakia University Stara Zagora, Bulgaria.

SUMMARY:

PURPOSE: The purpose of the present study is to determine the level of awareness among people about emergency and urgent medical care, as well as their need to obtain additional information.

MATERIAL AND METHODS: Data were collected through a questionnaire filled out by 312 random people living in the Stara Zagora region in Bulgaria. A pilot survey was conducted in the period of January-March 2024. The persons surveyed were from the Stara Zagora region, aged from 18 to 80 years old. The processing and analysis of the results were performed with Microsoft Office Excel 2010.

RESULTS: Emergency medical services are an important element of the healthcare system of any country, as they provide opportunities to respond to critical medical conditions and save lives. A number of the reviewed articles mainly described the reasons for using emergency medical care, and very little information on whether medical service users are aware of which condition is “emergency” and which is “urgent”. A large proportion of patients present to an urgent care center or emergency department with problems that can be managed at the emergency medical level.

CONCLUSIONS: The study shows a lack of public knowledge of emergency and urgent medical care, which in turn proves the need for interventions to improve public knowledge.

Keywords: Emergency, urgent, medical condition, Center for Emergency Medical Care, healthcare system,

INTRODUCTION

In the overall process of providing medical services to the population, the role of emergency and urgent care is extremely important.

Emergency medical services (EMS) are an important element of the health care system of any country, as they provide opportunities to respond to critical medical conditions and save lives.

Emergency medical services include rapid assessment, timely provision of appropriate interventions, and immediate transport to the nearest health facility in the best possible manner to improve survival, control morbidity, and prevent disability. [1]

According to Ordinance No. 3 of 2017 on the approval of the medical standard “Emergency medicine”: “Emergency patient” is anyone who has an emergency condition and therefore the need for urgent diagnostic and therapeutic actions or transport, which, if not acted upon immediately, would result in severe or irreversible morphological or functional damage to vital organs or systems or death. [2]

Bulgaria has long-standing traditions in the organization of medical assistance in emergency situations, and until 1995, this activity was an integral part of the general organization of state health care and was carried out by structures at the hospital facilities for “quick and urgent medical assistance”, to which one of the first national emergency numbers in Europe - tel. 150. The emergency medical care system has been functioning in its current form since 1996 when the 28 independent Emergency Medical Care Centers were established and the principle of dividing emergency medical care from the so-called “urgent” medical care. In the following years, significant reforms were carried out in outpatient and inpatient care, which completely changed the structure, organization, management and financing of the health care system. [3]

Thus, to date, in our country, there is a principle that separates “emergency” and “urgent” medical care, and the fi-

nancing of both types of care is arranged in such a way that it is not paid for by the patient who sought help. However, it is necessary to make a distinction between the two concepts of medical assistance, the meaning of which depends on the possibilities of providing timely medical assistance and the severity of the condition of the person in need.

There is a fundamental difference between an emergency and an urgent condition, and thanks to it, in all European countries, the medical circulation for the specialty has been created and actively applied, which, based on a code system, differentiates the different conditions of emergency patients and allows the teams to take more adequate actions.

The unclear distinction between the two specialized medical activities mainly stems from the unfinished reform in primary medical care and the established traditions in Bulgarian health care, on the one hand, and the difficult access to the Center for Emergency Medical Care (CEMC), on the other. Emergency medical care is part of the primary outpatient medical care and insurance and, if necessary, is fully charged as an obligation of the general practitioner. The provision of urgent medical care also requires a special recall regime (30 minutes) according to Article 12 of Ordinance No. 10, which medical facilities for primary outpatient medical care are unable to provide. [4]

A large part of foreign studies related to the provision of medical services are mainly focused on the problem of improper use of the services of emergency centers and departments of non-emergency patients. Such a problem inevitably exists in our country as well. A number of the reviewed articles mainly described the reasons for using emergency medical care, and very little information on whether medical service users are aware of which condition is "emergency" and which is "urgent". A large proportion of patients present to an urgent care center or emergency room with problems that can be managed at the emergency medical level.

The tendency to increase the annual demand for urgent and emergency care is observed both in developed countries and in Bulgaria.

Studies from the USA, Canada, England and Australia report that demand for emergency department services has increased by 3% to 6% each year. [5]

The growing demand for emergency and urgent care is associated with a number of consequences - overcrowding and overloading of emergency departments, increased costs of emergency services, as well as patient waiting times.

PURPOSE AND TASKS

The purpose of the present study is to determine the degree of awareness of people regarding emergency and urgent medical care, as well as their need to obtain additional information through a survey:

- the legal provisions in force for emergency and urgent care in the country;
- among people regarding their level of awareness of emergency and medical assistance;
- about people's need for additional information related to emergency and urgent care and when and how they can seek it.

MATERIALS AND METHODS

For the purposes of the study, a questionnaire was developed, including 11 closed-ended questions. The survey was conducted online in an electronic environment, with data collection forms, through the Google Forms application, as well as in paper form. All respondents have expressed their voluntary consent to participate, as indicated on the first page of the survey card. Selection is random. The respondents were a total of 312 people, men and women, aged from 18 to 80 years old, living in the Stara Zagora region. The research was conducted from January to March 2024.

The following statistical methods were used:

I. Descriptive statistics

Univariate frequency tables for the categorical variables with the calculation of:

- absolute frequency – number of valid answers for each category of the variable;
- relative frequency – the percentage of valid answers for each category of the variable from the total number;
- the percentage of valid answers – the percentage of valid answers for each category of the variable from the number of valid answers;
- cumulative percentage – the cumulative percentage of all categories of the variable.

2. Two-dimensional frequency tables for the categorical variables (Cross tables 2x2 and nxn - depending on the categories of the variables) with the calculation of number and percentage of the total number.

II. Graphical Analysis:

- pie and bar charts of the distribution for the categorical variables.

A significance level of the null hypothesis $p < 0.05$ is considered a statistically significant result.

The processing and analysis of the results were carried out using Microsoft Office Excel 2010.

RESULTS

Socio-demographic characteristics of the examined persons: The total number of participants in the present study is 312, with more than half being women – 68,9%, the highest percentage is in the age group 18-40 years – 68,8%. A considerable part – 51,9% have secondary and higher education. Table 1 presents the distribution of the respondents included in the study according to 3 of the main identification features: gender, age and education.

Table 1. Distribution of respondents by main identification characteristics (in number and %)

| Signs and varieties | Number (n) | Relative share (%) |
|------------------------|------------|--------------------|
| Total | 312 | 100 |
| Gender | | |
| Women | 215 | 68,9 |
| Men | 97 | 31,1 |
| Age | | |
| 18-30 y. | 149 | 47,6 |
| 31-40 y. | 66 | 21,2 |
| 41-50 y. | 29 | 9,4 |
| 51-60 y. | 25 | 8 |
| 60 years and more | 43 | 13,8 |
| Education | | |
| Primary | 22 | 7,1 |
| Mainly | 10 | 3,3 |
| Average | 118 | 37,7 |
| Higher and semi-higher | 162 | 51,9 |

Currently, emergency medical care in Bulgaria is provided by personal general practitioners, receiving funds for this from the National Health Insurance Fund (NHIF). The rules for the organization and management of emergency care are, to some extent, underestimated and unclear due to the fact that it is not independently separated in the health care system. At the moment, it is part of the primary outpatient care and insurance and, if necessary, is fully charged as an obligation of the general practitioner. Primary care physicians are trained to treat acute and chronic illnesses through a holistic, patient-centered approach.

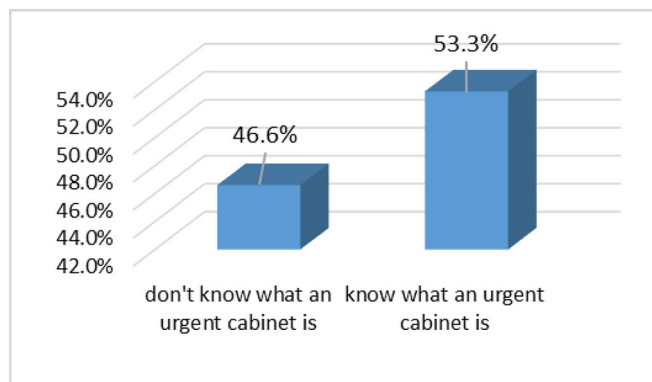
The survey found that 53,3% of all respondents surveyed were somewhat aware of the emergency room their GP contracted with. They know they can visit if needed after hours and on weekends, although 31,6% have never had to visit an emergency office. The level of awareness is highest (31,2%) among the lowest age group (18-38 years) and decreases gradually with increasing age.

Almost half of the respondents, 46,6%, do not know what an urgent office is and are not informed.

Emergencies are related to complications that have occurred and carry a potential risk of injury. With them, patients require quick, but not immediate, medical attention.

Data from this study are presented in Figure 1.

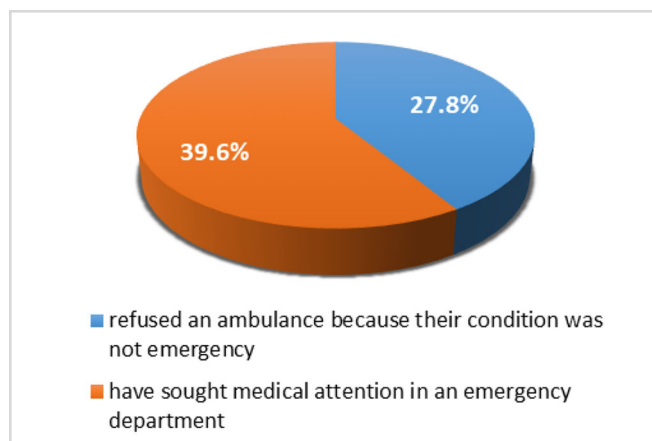
Fig. 1. Knowledge of what an urgent cabinet is



Most of the respondents, 67,4%, fell into a situation of incorrect use of the services of emergency centers and emergency departments.

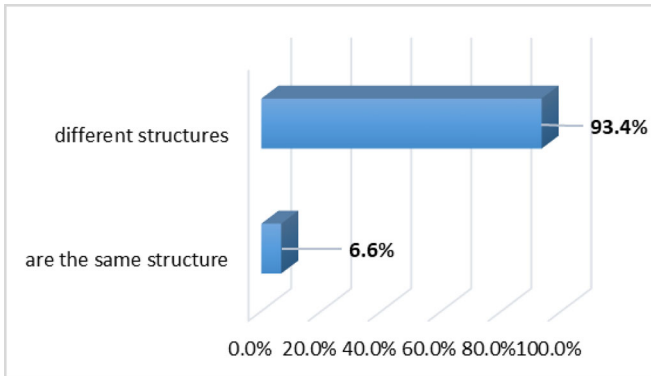
Of these, 27,8% sought emergency medical assistance by calling 112 and were refused an ambulance because their condition was not urgent, and 39,6% sought medical assistance in an emergency department, being directed to a personal physician or emergency room. as they did not know other places to go for their current health problem. The main reason for their visits was a viral cold.

Fig. 2. Incorrect use of emergency center and emergency department services



A strong impression is made by the results obtained when asking the question: "Do you think there is a difference between a Center for emergency medical care (CEMC) and an emergency department (ED)?" where almost all respondents (93,4%) answered that there is certainly a difference, but unfortunately they do not know and are not informed well enough about what it is. The remaining 6,6% are categorical and believe that these are the same structure, regardless of the activity they perform.

Fig. 3. Is there a difference between a Center for emergency medical care and an emergency department?



Emergency departments are quick and reliable and provide easy patient access to the health care system. They provide visits on the “treat and release” principle, which does not exceed 60 minutes.

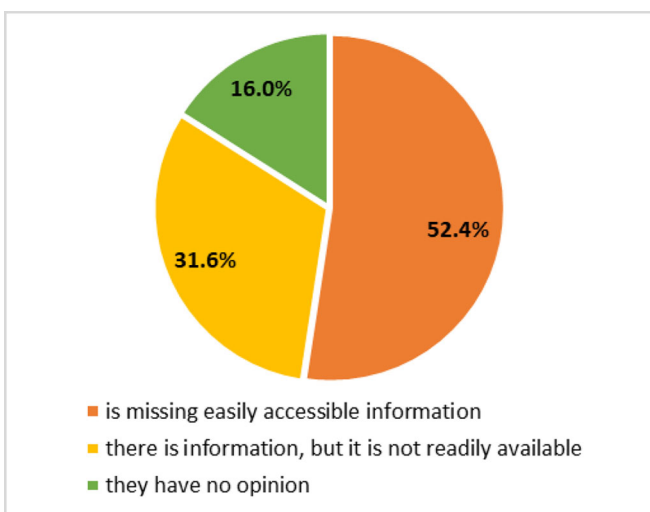
It is important to understand the answer to the question of why patients make clinically unnecessary use of health services. We found the answer related to access to information in the next question related to their awareness.

The majority of respondents – 52,4% believe that there is a lack of easily accessible information for people about when a condition is an emergency and when it is urgent, according to 31,6%, there is information, but it is not easily accessible to everyone, and only 16,0% do not are interested and have no opinion.

83,0% of all respondents need additional information about in which cases and with which symptoms they should call 112, visit an emergency room or go to an emergency department.

The need for additional information is highest among people with primary, primary or secondary education. Only 28,8% of respondents with secondary or higher education need one.

Fig. 4. Why do patients make clinically unnecessary use of health services?



The analysis that presents the results of the question: “How would you prefer to receive more information?” is important.

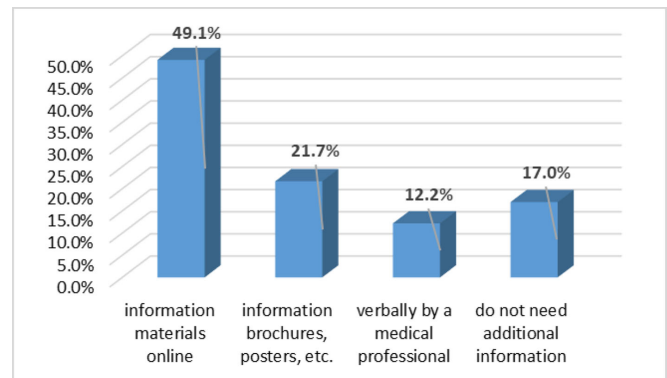
-with information materials online and in social networks- 49,1%

- through information brochures, posters and manuals on paper – 21,7%

-verbally, I prefer to be informed by a medical person- 12,2%

Only 17,0% feel confident and do not need additional information.

Fig. 5. How would you prefer to receive more information?



DISCUSSION

According to Ordinance No. 10 of 31.05.1994, emergency medical assistance is a medical activity for providing urgent medical assistance to sick and injured persons whose lives are not directly threatened but need medical assistance in a short period of time in order to prevent further development and complication of the disease. Emergency medical assistance is provided without fail and at any time of the day to all those in need. [6]

Since the mid-1940s, there has been a steady increase in emergency department visits. It is estimated that patient visits to emergency departments due to non-urgent complaints are between 33% and 50%. [7]

In a large percentage of cases, patients do not have the competence to judge the urgency of their condition or the condition of their loved ones.

A 2013 USA study found that at least 30% of all emergency room visits were non-emergencies. Using emergency care for non-emergencies can lead to excessive health care costs, unnecessary tests and treatments, and weaker patient-primary care provider relationships. [8]

According to Ordinance No. 25 of 04.11.1999, emergency medical assistance is the main activity for providing emergency medical assistance to sick and injured persons in a condition directly threatening their lives. [9, 10]

Emergency department overcrowding has been an identified problem in the US since the mid-1980s, is increasingly occurring in developed European countries,

and has even been described as a global public health problem. According to literature sources, part of the increased demand is due to patients with primary care problems who use the services of emergency centers and emergency departments to access medical care and treatment. Although for a large part of these patients (10%-60%), the health problem can be solved with the help of lower services in the primary care setting. [5]

The results show that only one-third of the 102 respondents (32,6%) are familiar with the term emergency medical assistance and have sought it by calling 112 or in an emergency department.

CONCLUSION

The conducted research allows the following conclusion to be made:

Society does not know what emergency and urgent medical care are. It is necessary to increase the health culture of citizens by informing the population about which condition is emergency and which is urgent.

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Address for correspondence:

Deyana Todorova
Department of Health Care, Faculty of Medicine, Trakia University Stara Zagora;
11, Armeyska Str., Stara Zagora, Bulgaria.
E-mail: deyanatodorova@abv.bg,