

Selected aspects of a survey on providing first aid among the population of Świętokrzyskie Voivodeship

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Summary:

Introduction. There are various reasons for providing first aid. Sometimes aid provider may be motivated by an unselfish will to help another person, while in other situations such a person may be reluctant to provide aid due to the worry of their own health or fear of hurting the victim. The aim of this study was to evaluate the knowledge of psychological aspects of providing first aid among the population of Świętokrzyskie Voivodeship.

Material and methods. The study covered 296 residents of Świętokrzyskie Voivodeship. A questionnaire was the tool for conducting the survey. The study was carried out in 2011.

Results. Twelve per cent of the survey participants had undergone training in providing first aid, while 96% declared the will to participate in such training. Events in which providing first aid was necessary had been experienced by 25% of the study subjects. Main motives for providing aid originated from the will to do so and the possibility of requiring such aid by the participants in an undetermined future. The most significant concern in providing aid was the possibility of hurting the victim (71%). Sixty-one per cent of the participants were not familiar with the term AED.

Conclusions. The surveyed group of residents of Świętokrzyskie Voivodeship did not have sufficient knowledge of providing first aid. There is a need of implementing educative actions in providing first aid and using automated external defibrillators among the population of Świętokrzyskie Voivodeship

Key words: first aid, society, knowledge, motives for providing first aid.

Introduction

Ensuring the security of citizens constitutes one of the essential functions of the state. To this end, emergency services and units are formed, which are responsible for providing specialized aid for people in life-threatening emergency situations [1]. Nevertheless, we need to realize that a certain amount of time passes from the emergency call until emergency service arrival.

In Poland, the Legislature has appointed every witness of an emergency situation as responsible for providing first aid to the victims. Regulations on this responsibility may be found e.g., in Article 4 of the State Medical Emergency Service law, as well as in Article 162 of the Criminal Code [2, 3]. One has to bear in mind that in the case of a sudden cardiac arrest implementing basic life support techniques (external chest compressions and/or rescue breathing) is of key importance, as every minute of delayed resuscitation commencement results in a 10–12% decrease in the chance

of survival of the victim [4–10]. Therefore every citizen should ideally have theoretical knowledge of first aid and be capable of implementing that knowledge in practice.

Regretfully, no reports on psychological aspects of providing first aid by bystanders may be found in the literature. Hence it seems rational to continue the studies allowing both the evaluation of the knowledge of first aid among the residents of Poland and determination of attitudes accompanying first aid providers. The aim of this study was to evaluate the knowledge of psychological aspects of providing first aid among the population of Świętokrzyskie Voivodeship.

Material and methods

The study covered 296 residents of Świętokrzyskie Voivodeship. Their age ranged from 23 to 46, with the average age of 29.62 ± 6.09 years. The majority of the participants had a driver's licence (74%). More than half lived in the city (63%). What is more, most of the study subjects possessed an academic degree (67%).

A diagnostic survey was employed in the study as a research method. Information was gathered using a questionnaire composed of a socio-demographic part (5 questions) and a theoretical part (12 questions), thanks to which the respondents could describe their views and attitudes to providing first aid.

The studied material was transformed using Microsoft Excel and analysed using the STATISTICA 8.0 software package. The normality of distribution of the data was assessed using the p significance level obtained via the Kolmogorov–Smirnov test. Cases of normal distribution were additionally analysed using paired Student's t-test. The results were deemed statistically significant at $p < 0.05$.

Results

The first introductory question asked to the study subjects was whether they had participated in a first aid course. Among 296 study participants only 35 (12% of the studied group) had taken part in such a course. However, 96% of the respondents declared the will to receive such training if a possibility occurred. Moreover, the study

subjects were asked to express their views on the statement that “first aid courses and trainings are necessary and every person should participate”. As many as 270 study subjects agreed with the above statement, whereas 26 declared having no opinion.

According to the data obtained in the study, 25% ($n=74$) of the participants had experienced an event in which providing first aid to a victim was necessary. Such aid had been delivered only by 56 of them. Study subjects who had provided first aid indicated a possibility that they might need such help themselves as the main motivating factor (87%), as well as the will to help (13%). The same respondents indicated fear (61%) and the possibility of hurting the victim (39%; $p < 0.001$) as the main difficulties in providing first aid. Those who had had such experiences were asked whether they could count on other bystanders' help during their actions. Fifteen confirmed having received immediate support from other witnesses, while in 19 cases such support was only granted on explicit request. In 22 cases of requested support, nobody granted it despite the presence of many bystanders.

Among 18 study subjects who did not attempt to provide first aid to a victim requiring it, the most potent demotivating factor was fear and the worry of hurting the victim (74%), lack of appropriate theoretical and practical knowledge (16%), as well as the worry of contracting an infectious disease potentially carried by the victim (10%; $p < 0.001$).

The author also asked the participants for an opinion on the most significant concerns regarding the act of providing first aid in emergency situations. The most common answer was the worry of hurting the victim (71%), lack of knowledge (19%), and the worry of getting in contact with the blood and other body fluids of the victim (10%, $p < 0.001$). Detailed distribution of the given answers is presented in Figure 1.

Another question regarded an assessment, whether the respondents would deliver first aid to a victim requiring it if they possessed specialist knowledge on the topic. A clear will to provide such aid was expressed by 82% of the study group. The answer “rather would” was indicated in 9% of cases. Similarly, 9% of the participants

declared that their providing first aid would depend on the circumstances ($p < 0.001$).

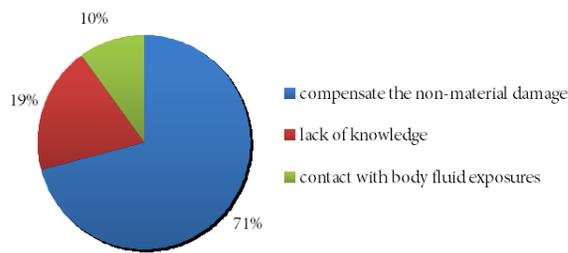


Figure 1: The most significant worries related to providing first aid.

Awareness of the consequences of denying first aid to a person in a life-threatening emergency situation was declared by less than 17% of the study subjects. As for the knowledge of the consequences for the victim, 80% of the respondents stated knowing them ($p < 0.001$ for both questions).

The participants were also asked whether they would like to be provided with first aid in the case of a sudden life threat and 74% of them answered affirmatively (regardless of the rescuer’s skill level), while in 20% of cases the respondents would only accept first aid from a person with adequate knowledge of the topic. Eight per cent of the study group replied that they would not like to be provided with first aid ($p < 0.001$; Fig. 2).

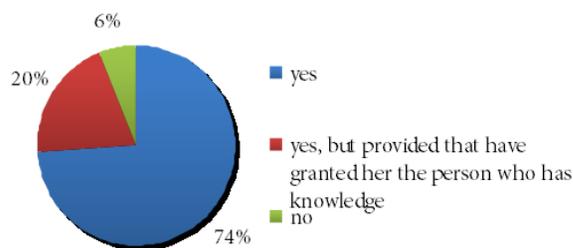


Figure 2: Answers to the question: “Would you like to be provided with first aid?”.

The final question asked to the participants was whether they would be able to use an automated external defibrillator (AED) in the case of witnessing a cardiac arrest, if such a device was available. Fifty-four study subjects (18%) answered affirmatively (they would use an AED). A vast majority of the respondents ($n = 180$; 61%) declared possessing no knowledge of AED use. Twenty-one per cent would not use an AED in the case of a sudden cardiac arrest in a victim ($p < 0.01$).

Discussion

Legal obligation of providing aid to a person in a life-threatening emergency situation is put on every resident of Poland. Regulations on this responsibility may be found e.g., in Article 162 of the Criminal Code, according to which a person who will not provide help to another person in a situation potentially resulting in death or a serious injury, while being able to do so without risking their own or other people’s lives, is subject to imprisonment of up to 3 years [2]. Common regulations on the obligatory aid have also been included in the State Medical Emergency Service law. Article 4 thereof is less restrictive than that of the Criminal Code.

In Article 4, the Legislature has stated that whoever notices persons in a life-threatening emergency situation or becomes a witness of an event leading to such a situation, as much as their capabilities and skills allow them to, is obliged to take actions aimed at an effective notification of the services legally responsible for providing aid to persons in a life-threatening emergency situation [3]. Obligations of the residents of Poland result from the aforementioned laws. It needs to be emphasized that a person providing first aid is considered as a rescuer and is eligible for legal protection, similarly to public services and according to Art. 115 §13 of the Criminal Code, for the time of performing rescue operations. Although legal regulations regarding the obligation to provide first aid have been clearly expressed in legislative acts, Polish society possesses little knowledge on that topic. Studies conducted by the author seem to confirm this assumption, as only 17% of the study subjects were aware of the obligation to provide aid to persons in a life-threatening emergency situation and the consequences of failing to do so. Twenty-five per cent of the entire study group had experienced a situation, in which such aid should have been delivered.

However, only 56 respondents managed to do so. The motives of their actions were mainly focused on the possibility of being in such a situation themselves in an undetermined future, but also on an unselfish will to help another person. Among the main reasons for failing to provide help, fear and the possibility of hurting the victim were the most common. Psychologically, the key element affecting the will to provide first aid

is the support of other people while taking the aforementioned actions [11–13]. In only 9 cases in the study group, the respondents could count on the support of other witnesses.

Either in Poland or other European countries, a commonly accepted procedure of patient handling in the cases of life-threatening emergency situation (particularly those involving cardiac arrest) has been implemented by the European Resuscitation Council [5, 8, 14]. These guidelines, as in the case of the ACC/AHA guidelines, are established on a basis of the so-called evidence-based medicine (EBM) [6, 15]. Such an approach ensures selecting the most effective procedure supported by numerous clinical studies. The newest guidelines have been in force since 2010 and constitute a basis for many courses and trainings in providing first aid, applying basic resuscitation techniques, or using automated external defibrillators [6, 10, 15]. Among the study group, only 12% had participated in courses on that topic. Despite this low percentage (in the study group) of the residents of Świętokrzyskie Voivodeship who received such training, it has to be mentioned that 96% of the study subjects declared the will to participate in the courses of first aid.

The above mentioned State Medical Emergency Service law has introduced a definition of first aid which still remains in force and reads that first aid is a “group of actions aimed to rescue a person in a life-threatening emergency situation, taken by a person present at the site of the event.” [3] By analysing the above definition it may be noticed that the Legislature has not precisely identified the actions matching the definition of first aid. Therefore it seems justified to presume that first aid encompasses all actions taken without the use of any devices (except the means of personal protection), according to the international BLS (Basic life support) scheme, which comprises basic resuscitation techniques [10, 11]. However, article 3, clause 7 of the State Medical Emergency Service law allows the use of medical devices and commonly available medicinal products while performing actions matching the definition of first aid [3].

As has already been mentioned in the introduction, early execution of the first aid procedures is of key importance in every case of a

life-threatening emergency situation, including cases of cardiac arrest, in which basic life support procedures are vital [16], especially because every minute of delayed resuscitation commencement results in a 10–12% decrease in the chance of survival of the victim [7, 8, 17, 18]. The knowledge of this fact was reported in 80% of the study subjects.

We all need to be aware that we might become witnesses of a sudden cardiac arrest. This dramatic situation requires not only an immediate introduction of basic life support techniques and summoning help, but also performing early defibrillation procedures and advanced cardiopulmonary resuscitation techniques by qualified medical personnel [19, 20]. To allow the possibility of performing a quick defibrillation, the worldwide Public Access to Defibrillation (PAD) programme was implemented [22, 23]. As is indicated by the name, the programme is meant to serve a wider availability of automated external defibrillators, which may be operated by anyone. Automated external defibrillator is fully autonomous and guides the rescuer step by step through the first aid procedure.

According to the ILCOR/AHA/ERC international guidelines, AEDs should be maintained in places, in which the probability of occurrence of a sudden cardiac arrest is higher than once in two years [19, 24]. Following the Public Access to Defibrillation programme, the location of the devices should enable their use within less than 3 minutes. Analysis of the study results indicated a scarce level of knowledge of AED use among the respondents. As little as 18% of the participants declared that they would use an AED in the case of witnessing a cardiac arrest. What raises a concern is the fact that despite the increasing AED availability in Poland, as much as 61% of the respondents had no knowledge of the use of an automated external defibrillator.

Conclusions

In the studied group, the residents of Świętokrzyskie Voivodeship did not have sufficient knowledge of providing first aid.

There is a need of implementing educative actions in providing first aid and using automated external defibrillators among the population of Świętokrzyskie Voivodeship.

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