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Awareness of Lower Silesian residents of first aid procedures and the use of Automatic External Defibrillator (AED) device

Świadomość mieszkańców Dolnego Śląska na temat udzielania pierwszej pomocy i używania AED

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Abstract

Recognizing the injured person and providing first aid is of key importance in the proper conduct of the survival chain. The aim of this study was to examine the awareness of Lower Silesian residents of first aid procedures and the use of Automatic External Defibrillator (AED) device. The study group consisted of 180 people of various ages, including 65 men and 115 women. 77 people from study group declared to have achieved higher education, 85 – average education, basic vocational education 10 and 8 – basic education For the needs of the study, an original, fully anonymous questionnaire was constructed and disseminated electronically through social media and discussion groups. The results of the survey showed, that the awareness of Lower Silesian residents about providing first aid and the usage of AED is not sufficient. Therefore, the first aid courses should address its important legal aspects, including issues related to the use of an AED.

Key words: first aid, AED, Lower Silesia Province

Streszczenie

Prawidłowe rozpoznanie osoby poszkodowanej i udzielenie jej pierwszej pomocy mają kluczowe znaczenie w prawidłowym prowadzeniu łańcucha przeżycia. Celem pracy było zbadanie świadomości u mieszkańców Dolnego Śląska na temat udzielania pierwszej pomocy oraz użytkowania automatycznego defibrylatora zewnętrznego (AED). Grupę badaną stanowiło 180 osób w różnym wieku, w tym 65 mężczyzn i 115 kobiet. W grupie badanej, wyższe wykształcenie zadeklarowało 77 osób, średnie – 85, zasadniczo zawodowe – 10 oraz podstawowe – 8 osób. Na potrzeby badania skonstruowany został autorski, w pełni anonimowy kwestionariusz ankiety, który został rozpowszechniony drogą elektroniczną, poprzez media społecznościowe oraz grupy dyskusyjne. Wyniki ankiety wykazały, iż świadomość mieszkańców Dolnego Śląska na temat udzielania pierwszej pomocy i użytkowania AED nie jest wystarczająca. W związku z tym, kursy udzielania pierwszej pomocy powinny poruszać jej ważne aspekty prawne oraz obejmować zagadnienia związane z użytkowaniem automatycznego defibrylatora zewnętrznego.

Key words: first aid, AED, sailors, drowning

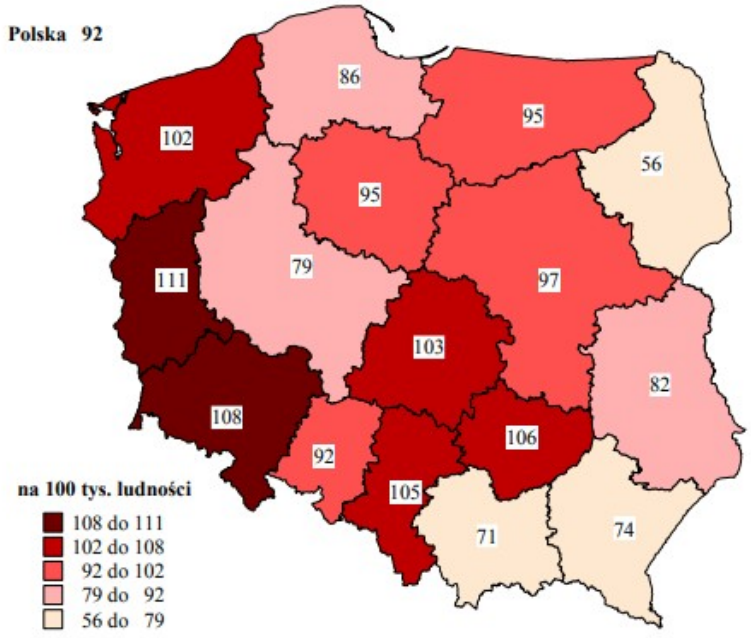
Admission

One of the main causes of deaths in Poland are cardiovascular disease and cancer, which comprise 70% of total deaths. For the third group they offend poisoning which comprise 6% of all deaths. You should not miss a fairly broad group of deaths for which have not been clearly defined cause. This group is defined by the International Classification of Diseases and Causes of Death was defined as "Section R". Group means the deaths for which no specific cause has been identified. In Poland, the percentage of decisions marked "chapter R" is one of the highest among the European Union countries.

Deaths of people aged 0-64 years as a result of cardiac diseases is definitely premature deaths - in 2013. There were over 30 thousand., Including over 23 thousand. men concerned. Cardiovascular diseases were in 2013. Cause nearly 30% of deaths in men (being the most important cause of their mortality) and more than 22% of deaths in women under the age of 65 years.

Mortality due to CVDs years are at a similar level and oscillate around the value of 90 100 thousand. population. In 2013. Per 100 thousand. deaths of persons aged 0-64 years, almost 92 were caused by cardiovascular disease. As mentioned earlier in this case there is a clear difference between the sexes - male ratio is more than three times higher than for women and 2013. It amounted to almost 140 (less than 44 for women).

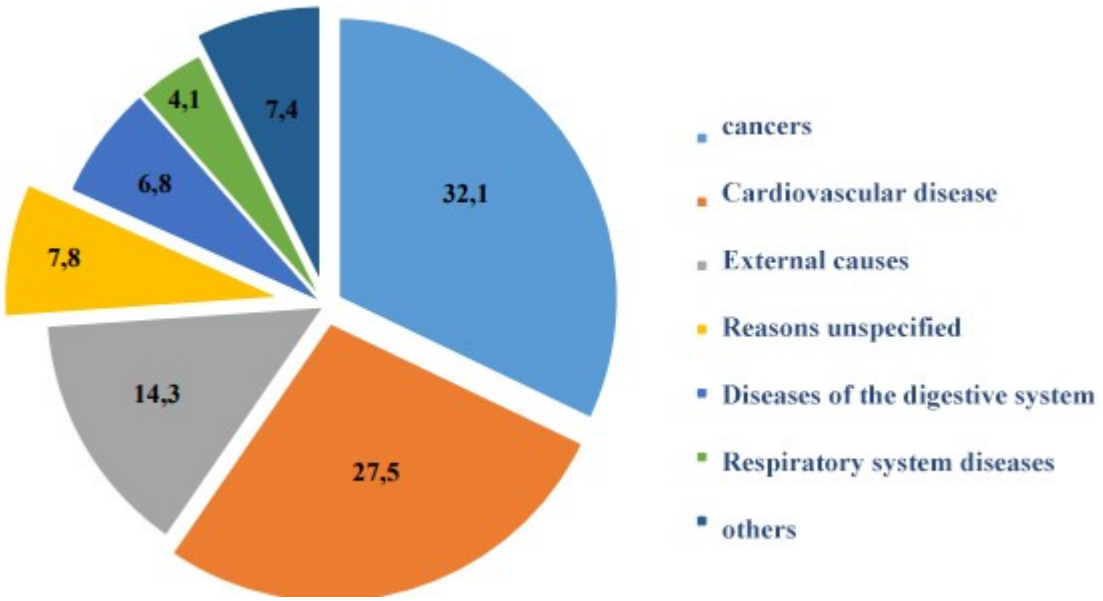
Among the specific causes of cardiac responsible for the deaths of people before the age of 65 years in the first place is coronary heart disease. In 2013. She was the cause of more than 30% of all deaths from CVD in this age group. Due to ischemic heart disease have died prematurely over 9 thousand. people, including more than 7 thousand. men. Further, a large group of cardiac causes are cerebrovascular disease (18% of deaths due to CVD) to 2013. Gave rise to 5.5 thousand. deaths under the age of 65 years. And in this case they are more likely to affect men (3.7 thousand. Deaths) than women (1.8 ths.).



Pic. 1. Deaths caused by diseases of the circulatory system of the division of the province in 2013. The age range 0-64 years.

Source: http://stat.gov.pl

Most cases of deaths caused by cardiovascular diseases has been observed in the south-western part of Polish. Lower Silesia found
until the second and amounted to 108 cases per 100,000 population.



Pic. 2. Mortality people in 2013 with the division on the causes of death for people in Poland in the range of 0-64 years.

Source: http://stat.gov.pl

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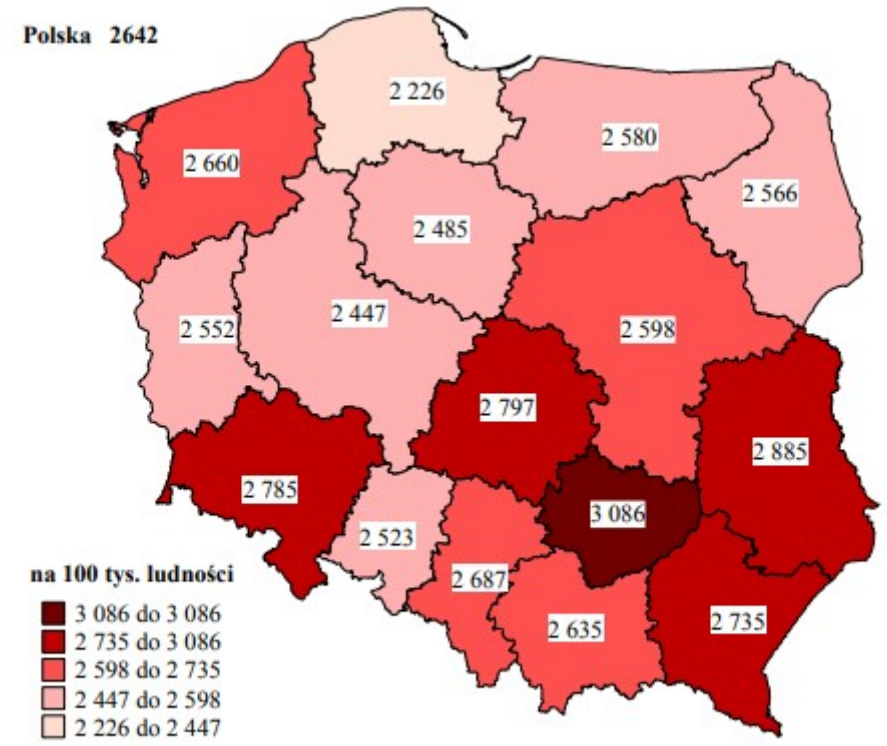
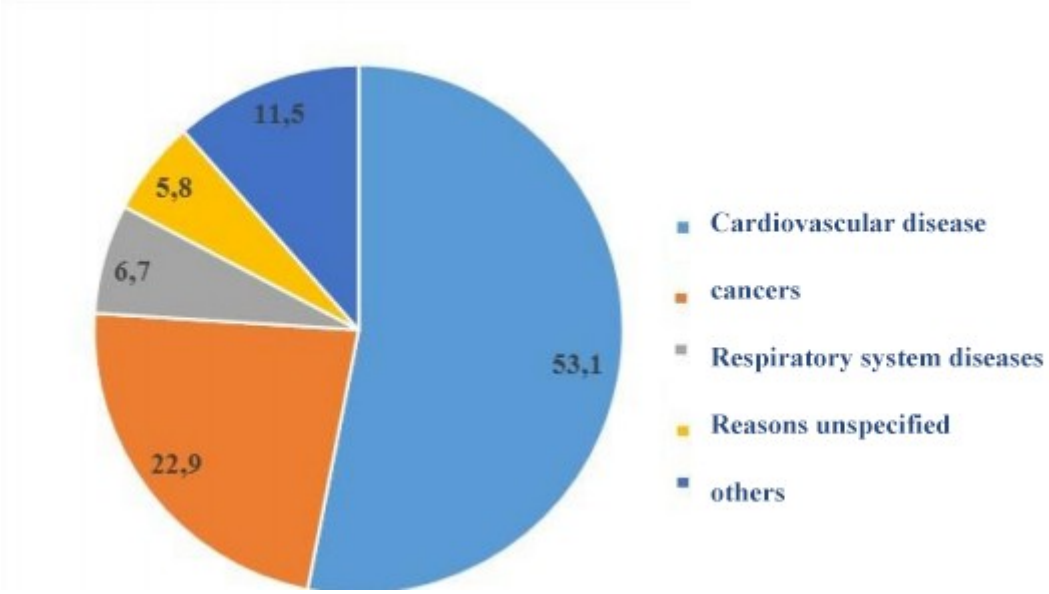


Pic. 3. Deaths due to diseases of the circulatory system of the division of the province in 2013. The age range of 65 years or more.

Source: http://stat.gov.pl

Mortality of older people with cardiovascular disease varies between regions (Figure 3). In most regions the number of deaths due to cardiac causes more than half of all deaths in the region's population. The highest rates in this record świętokrzyskie (59%), podkarpackie (57%) and Lublin (57%). The lowest share of deaths from CVDs among the elderly are listed in Pomorskie (48%) and Wielkopolskie (49%).

The mortality rate varies by age - in 2013. Died more than 277 thousand. People aged 65 years and more, and they accounted for approx. 72% of all the dead. The overall death rate in the elderly (calculated on 100 thousand. Population) stood at approx. 5000. In contrast, showing mortality rate due to cardiovascular diseases was in 2013. 2600 - accounting for more than half (53%) of all deaths the elderly. (Fig. 4)



Pic. 4. Mortality people in 2013 with the division on the causes of death in Poland for people between 65 and more years.

Source: http://stat.gov.pl

The distinction between the concepts of CPR and resuscitation

Both concepts are derived from Latin. The term comes from the word resuscitation resuscitare and means to revive, renew. Whereas the term comes from the word resuscitation reanimatio, which means a return to life or return to life fully [1].

Cardiopulmonary resuscitation is a team of medical activities aimed at maintaining or restoring the victim's vital signs, in the case of sudden cardiac arrest. The result can be carried out resuscitation to restore vital signs without regaining consciousness. [2] In a situation where the victim is restored circulation and breathing, and central nervous system recover normal functions, we can talk about effective zreanimowaniu victim. Both concepts methods to save the lives of the same, and their distinction is obtained the final result.

Effectiveness taken actions rescue is subsidiary from their carry out a correct and from the point at which they started [3,4].

Factors that affect the final end result of CPR present themselves as the so-called. "Chain of survival", which consists of four cells.

The dying process can be divided into three periods:

- And this period of loss of vital signs, which starts from one of the vital systems.

- Second period is clinical death, sometimes under optimal conditions, it is reversible.

NDE time is determined by the time of death of the cerebral cortex (3-4 min).

- III period leads to irreversible shutdown operations and subsequent brain

structures system.

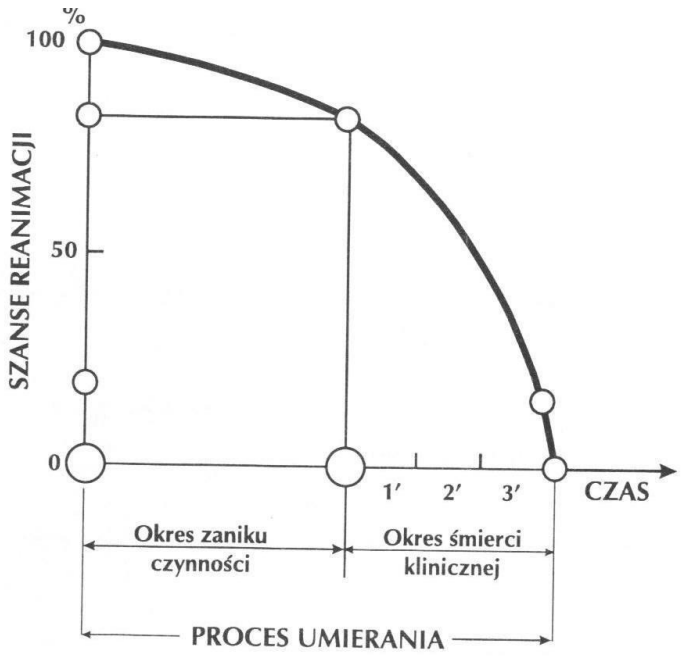


Chart 1: The process of dying

Source: http://www.wopr.malbork.pl/uploads/images/pomoc

If the resuscitation procedures are taken in the first and second stage of dying, it is possible to obtain the state of resuscitation, but if treatments are begun in the period III, achievable only condition resuscitation [5].

Aim of this paper:

The aim of the study was to investigate the awareness of first aid and the use of AED devices at the inhabitants of Lower Silesia.

Materials and methods

Study group consisted of 180 people of all ages. For the analysis of the results were taken into account from a group of 150 people who identified their place of residence in Lower Silesia now. For the study, a questionnaire was constructed. Participation in the study was voluntary and completely anonymous. The questionnaire consisted of 17 questions designed to investigate the awareness of people in terms of knowledge of the medical assistance and the use of the AED. The first part of the questionnaire included questions included questions metryczkowe, the second part directly related to the purpose of the study. The form of the questions was distributed through social media in various discussion groups, in the form of an electronic questionnaire. This method ensured the audited sure about the anonymity of research and unlimited time to respond. The completed questionnaire was tested by the end of the approved and placed on the server, which involved agreeing to participate in the study. The condition required for switching on the results of the analysis, there was a statement in the form of a question about the place of permanent residence.

The aim of the study was to show the residents of Lower Silesia awareness about first aid and AED use.

Findings

The total number of respondents was 180 people. Aim of the study was designed to determine the consciousness of the inhabitants of Lower Silesia on the first-aid equipment and knowledge of the AED, therefore the remainder of the study took into account the 150 people who stated that they live in Lower Silesia.

Sex	Value	The place of residence	Value		Value
Woman	76	Dolny Ślask	56	Higher	67
Man	146	Dolny Ślask	94	average	70
				vocational	6
				Lower secondary	6
				Basic	1

Table 1: Information on people involved in the study.

Source: own

143 respondents answered that according to the law, every person has a duty to provide first aid to the victim. 6 people felt that there is no such obligation, and one person did not know the answer.

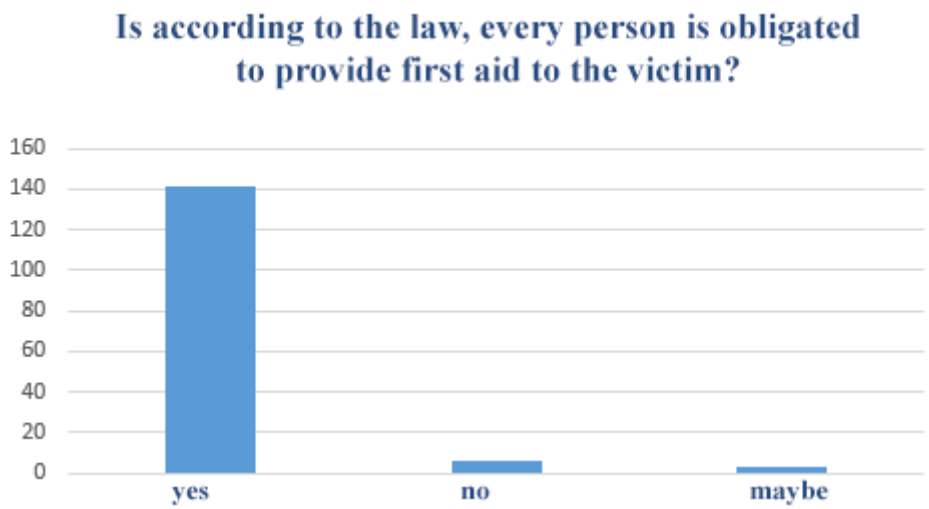


Chart 2: Is according to the law, every person has a duty to provide first aid to the victim?

Source: own

141 respondents participated in the opinion of classes on first aid. The question was not special character and were not defined guidelines that should meet the training program.

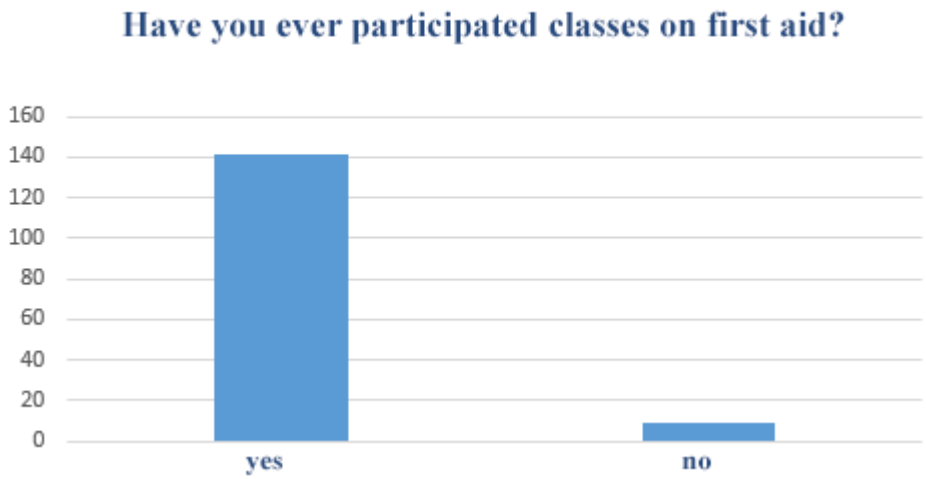


Chart 3: Have you ever participated Mr / Ms classes on first aid?
Source: own

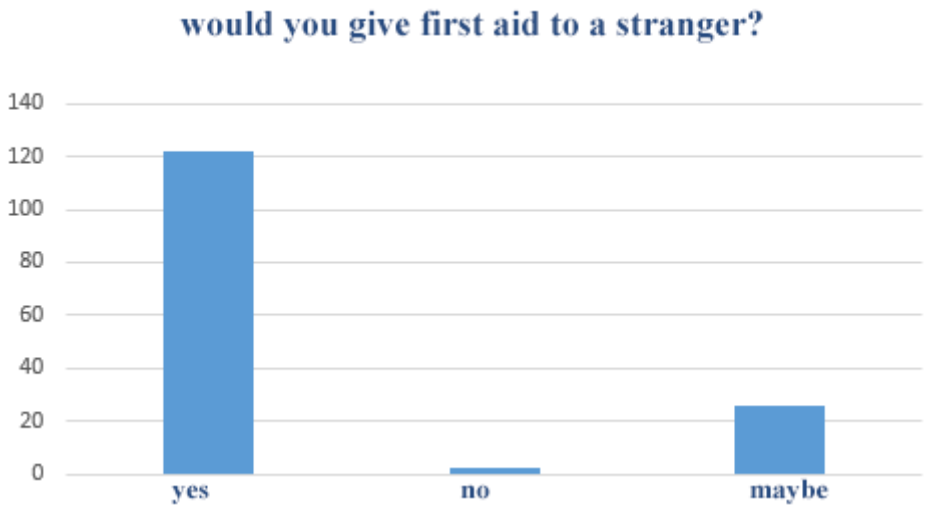


Chart 4: Would you give first aid to a stranger?
Source: own

The question was not specified what type of first aid. The respondent had to answer whether a person would engage in situations requiring assistance to the victim. 123 respondents answered yes, 22 people answered affirmatively, it is not certain. 3 people replied that they would not have provide the aid.

Another question regarding involvement in first aid, was the question of the possible reasons for indecision to help. Fear of disease had 7 of the respondents, while the fear to cause "major damage" to the victim chose 9 people.

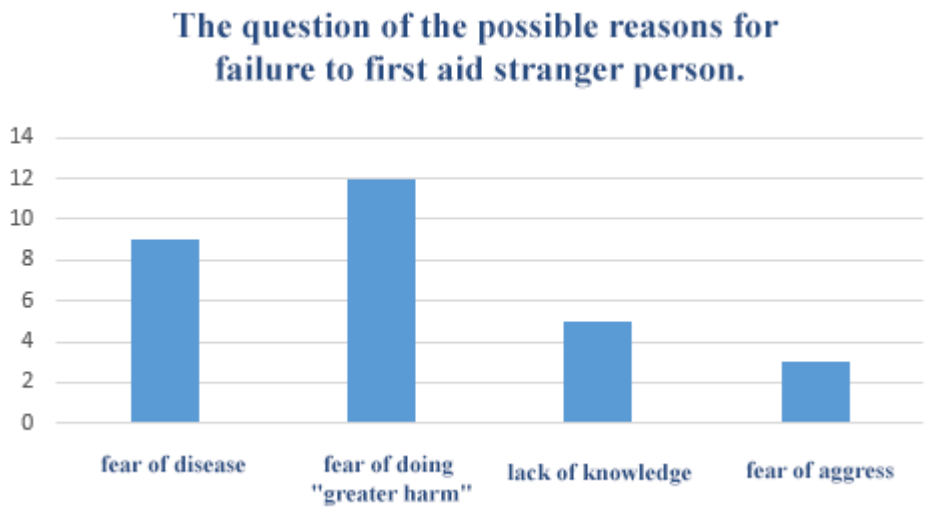


Chart 5: The question of the possible reasons for failure to first aid stranger person.
Source: own

In the question about the reasons why a person chooses not to provide first aid to the victim, 12 people have indicated the answer "to cause fear of" greater harm. " 9 people feared infection diseases. Failure to provide support due to lack of knowledge declared 5 and 3 people have expressed their fear of aggression on the part of the victim.

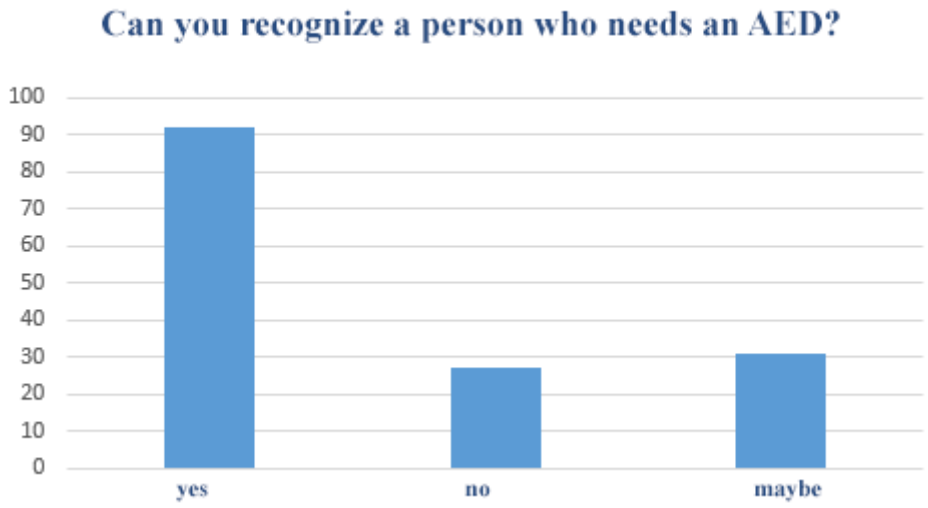


Chart 6: Can you recognize a person who needs an AED?
Source: own

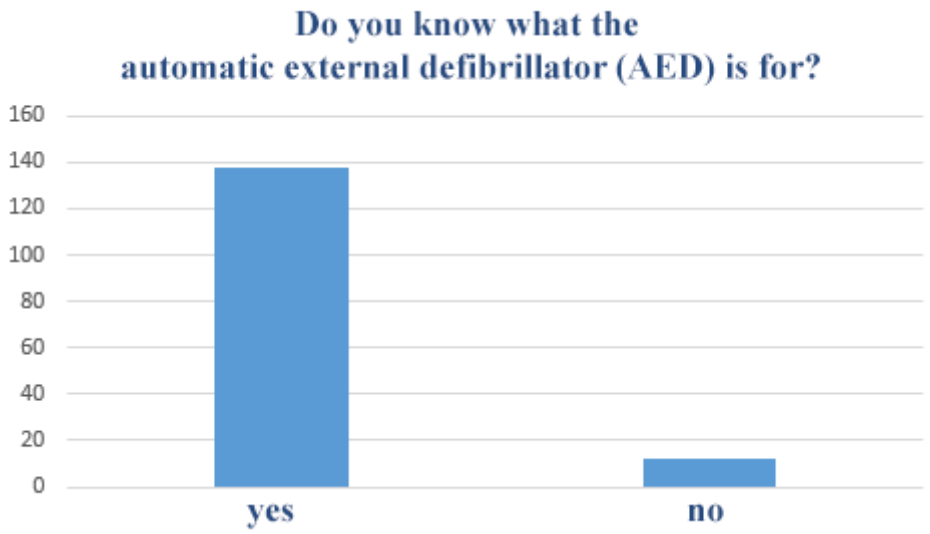


Chart 7: Do you know what the automatic external defibrillator (AED) is for?

Source: own

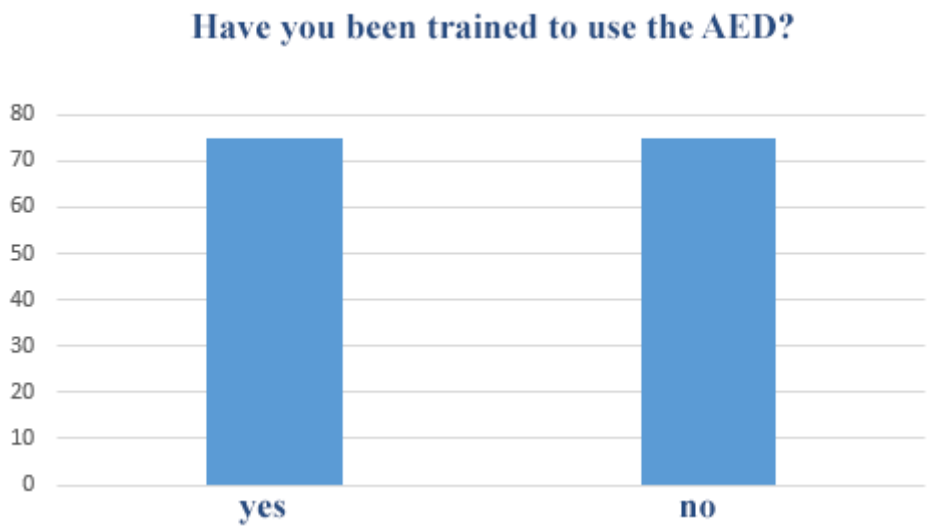


Chart 8: Have you been trained to use the AED?

Source: own

Exactly half of the respondents said that it has been trained to use the AED. The question did not contain precise guidelines for the advancement of training, type or other information relating to the method of training.

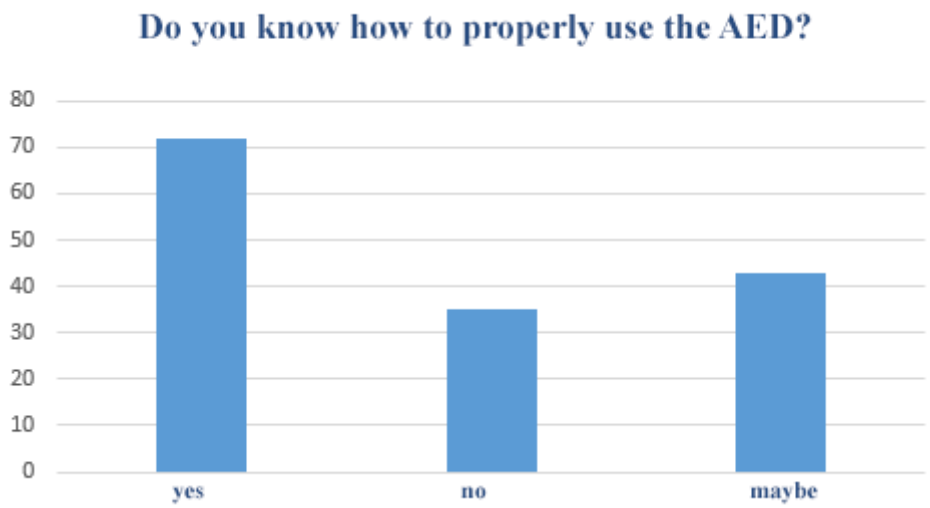


Figure 9: Do you know how to properly use the AED?

Source: own

Despite the training undertaken with the use of the AED, which involved 135 respondents said only 72 people say they can properly use the AED. 43 people answered that he was not sure of their skills using the AED device, and as many as 35 people said they can not properly support the device.

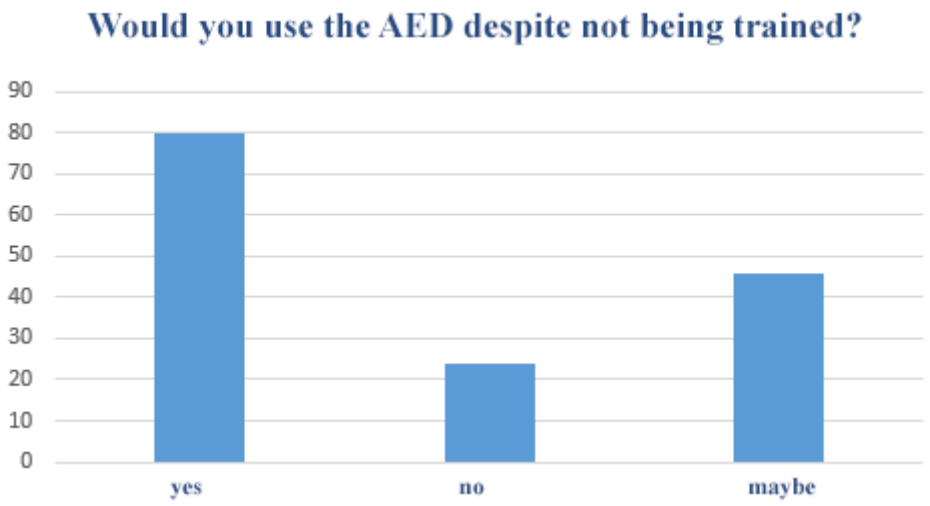


Chart 10 Would you use the AED despite not being trained?

Source: own

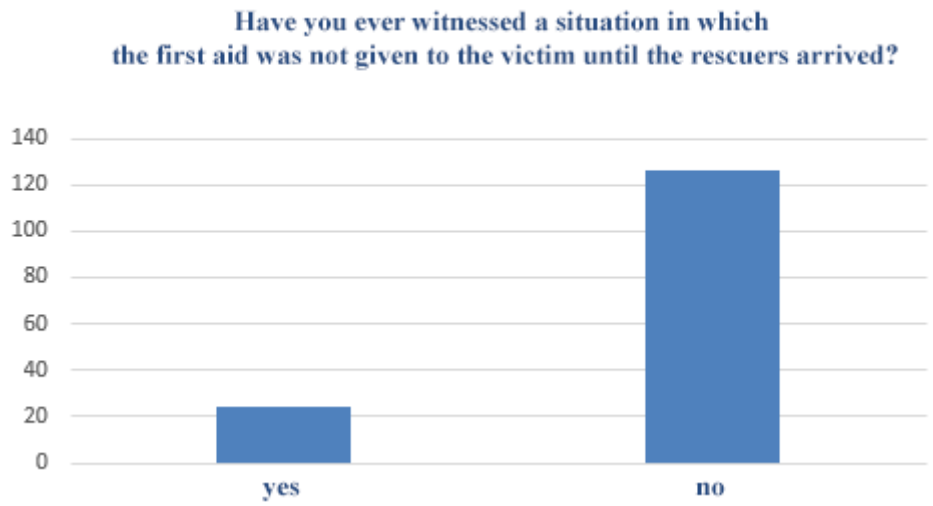


Chart 11: Have you ever witnessed a situation in which the first aid was not given to the victim until the rescuers arrived?

Source: own

The question whether there ever were you witnessed a situation in which the victim is not provided first aid to the arrival of rescuers, 126 people answered that it was not witnessed such a situation. In contrast, 24 people replied that they were witnessing a situation in which the injured party has not received any help before the arrival of emergency services.

Discussion:

Diagnosis and first aid to the victim is crucial to the proper conduct of the chain of survival [6]. Effective use of an Automated External Defibrillator by persons located near the victim within 3-4 minutes after the disappearance of signs of life, may result in the victim resuscitation.

Audit of awareness of the inhabitants of Lower Silesia in terms of having knowledge of first aid and cardiac arrest, allowed reveal many aspects that should be examined more widely and more extensively. The surprising result may be a number of people who stated that there is no legal obligation to provide first aid to the victim. Lack of proper training in first aid showed up to 9 people which may indicate the need for a compulsory basic first aid courses. A lot of people doubt occurred in the causes of failure of first aid to the victim. 12 people marked the answer "to cause fear of" greater harm. " 9 people feared infection diseases. Failure to provide support due to lack of knowledge declared 5 and 3 people have expressed their fear of aggression on the part of the victim. The questioned about knowledge of the AED device and its application, 92% of respondents chose the answer that he knows what the device is and what it does. Regarding the skills possessed device AED 48% of the respondents answered

affirmatively, 29% could not identify their skills, and 23 said they did not have the skills the correct operation of the device. Striking is the fact that exactly 50% of respondents said that they have received training in handling and use of an AED device. An important aspect of the study was to show that as many as 24 cases out of 150 is not given any first aid to the arrival of paramedics.

Conclusions:

1. First aid courses for the residents of Lower Silesia should be conducted in an increased number and range of their enlarged.
2. Training in the use of AED should be an integral part of the courses in first aid.
3. Due to the relatively little knowledge on how to use the AED device should be carried out dripping informing about the distribution and allocation of equipment in Lower Silesia.

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