

View of Primary Health Care users on cardiovascular emergencies

Visão de usuários da Atenção Primária à Saúde acerca de emergências cardiovasculares

Visión de los usuarios de Atención Primaria sobre las urgencias cardiovasculares

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Objective: to determine how much emotional and empirical factors influence the actions of untrained people in a sudden cardiovascular event. **Methods:** cross-sectional study, carried out using a questionnaire on socioeconomic factors, previous experiences in emergency situations and actions to be taken in hypothetical cases. Afterwards, the variables that were most associated with taking correct actions were identified. A descriptive analysis was carried out. **Results:** 51 people participated, of which 14 (27.45%) said they had already participated in some training in basic life support or first aid and 37 (72.54%) said they did not participate in any training. Of those who participated, nine (64.28%) correctly identified the SAMU 192 number, and 14.81% of those who had never witnessed an emergency and 37.5% who had already witnessed an emergency before said they knew how to perform Cardiopulmonary Resuscitation. **Conclusion:** it was noticed that the more a person is exposed to emergencies or receives training on basic support, the greater the chances of reacting correctly and calmly in an emergency.

Descriptors: Cardiopulmonary resuscitation; Emergencies; First aid.

Objetivo: constatar o quanto os fatores emocionais e empíricos influenciam na conduta de pessoas não treinadas em um evento cardiovascular súbito. **Método:** estudo transversal, realizado por meio de um questionário sobre fatores socioeconômicos, experiências prévias em situações emergenciais e condutas a serem tomadas diante de casos hipotéticos. Após, identificou-se as variáveis que se encontraram mais associadas à tomada de atitudes corretas. Realizou-se uma análise descritiva. **Resultados:** participaram 51 pessoas, das quais 14 (27,45%) afirmaram já ter participado de alguma formação em suporte básico de vida ou primeiros socorros e 37 (72,54%) afirmaram não participação. Das que participaram, nove (64,28%) responderam corretamente o número do SAMU 192, e a porcentagem de pessoas que disseram saber realizar uma Ressuscitação Cardiopulmonar foi de 14,81% (nas pessoas que nunca presenciaram emergências) e 37,5% (grupo que já presenciou). **Conclusão:** percebeu-se que, quanto mais uma pessoa é exposta a emergências ou recebe formações sobre suporte básico, maiores são as chances de reagir correta e calmamente em uma emergência.

Descritores: Reanimação cardiopulmonar; Emergências; Primeiros socorros.

Objetivo: averiguar en qué medida influyen los factores emocionales y empíricos en el comportamiento de las personas sin entrenamiento en caso de acontecimiento cardiovascular repentino. **Método:** se realizó un estudio transversal mediante un cuestionario sobre factores socioeconómicos, experiencia previa en situaciones de emergencia y comportamiento a adoptar en casos hipotéticos. Posteriormente, se identificaron las variables más asociadas a acciones correctas. Se realizó un análisis descriptivo. **Resultados:** Participaron 51 personas, de las cuales 14 (27,45%) dijeron que ya habían participado en cursos de entrenamiento en soporte vital básico o primeros auxilios y 37 (72,54%) dijeron que no. De los que habían participado, 9 (64,28%) respondieron correctamente al número del SAMU 192, y el porcentaje de personas que afirmaron saber realizar la reanimación cardiopulmonar fue del 14,81% (entre los que nunca habían presenciado una emergencia) y del 37,5% (entre los que sí la habían presenciado). **Conclusión:** Se constató que cuanto más expuesta esté una persona a emergencias o reciba entrenamiento en apoyo básico, más probabilidades tendrá de reaccionar correctamente y con calma en una emergencia.

Descriptores: Reanimación cardiopulmonar; Urgencias médicas; Primeros auxilios.

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INTRODUCTION

Just over 30% of deaths occur due to acute cardiovascular decompensation¹, which demonstrates, in a way, how important it is for all citizens to know how to provide the first care to the patient, from recognizing the condition, to the timely arrival of the Mobile Emergency Care (SAMU 192 - *Serviço de Atendimento Móvel de Urgência*), as this considerably increases the probability of survival and the chance of a good prognosis^{2,3}.

Regarding the nation wide coverage of SAMU 192 in Brazil, it was found that, in 2019, this service was available to approximately 85% of the population⁴; although 15% may seem like a small percentage, it is not, when one imagines the territorial extension and number of the Brazilian population, as well as administrative issues of the municipalities in service and the regions not covered by the service. This makes it important for any citizen to provide first care to an acutely ill patient in a time of need.

It can be added that SAMU 192's response time (period elapsed between the phone call and the arrival of the service at the scene of the incident) does not always occur in a timely manner. A study showed that in the metropolitan region of Juiz de Fora, in the state of Minas Gerais, covering around 1.6 million inhabitants, around 62% of services ended up being carried out with a response time greater than 10 minutes⁵.

In this regard, Skinner's school of behaviorism stated that all or almost all human behaviors were based on previously witnessed experiences⁶, which leads to the same premise, which is true with regard to the decision-making of any citizen faced with acute cardiovascular health issues.

From this, it is noted the need to carry out a study that assessed whether the fact that an individual had already witnessed a previous emergency situation would positively influence decision-making in the event of acute decompensation of the cardiovascular system. Thus, this study aimed to determine how much emotional and empirical factors influence the conduct of untrained people in a sudden cardiovascular event.

METHODS

A cross-sectional and observational study was carried out, in which data were collected through a printed questionnaire applied to patients found in the waiting rooms of a Family Health Strategy (FHS) unit in the city of Passos, in the state of Minas Gerais, asking about socioeconomic factors, previous experiences in emergency situations and probable actions to be taken in the face of hypothetical acute cardiovascular problems.

Data was collected between the months of October and November 2022. After that, a descriptive analysis of the data was carried out in order to identify the variables that were linked to taking correct actions.

As an exclusion factor, those under 18 years of age or those who had already completed a technical or higher education course within the major Health area were considered, with the aim of focusing on the population not trained in situations of acute complications.

The clinical epidemiological variables that were present in the questionnaire formulated by the researchers were: whether or not the person had already participated in a first aid or basic life support course; whether or not the person had witnessed someone unconscious; the person being researched responds correctly or not when asked about the SAMU 192 activation number; to judge whether or not they would be calm in the face of a possible future emergency; the context of the person stating that they would know how to perform Cardiopulmonary Resuscitation (CPR); for the person to remember to mention that they would call SAMU 192, when asked what they would do in the face of a patient suspected of having a stroke (cerebrovascular accident - CVA).

The application of each questionnaire lasted an average of three minutes, in order to encourage participants to question what their behavior would be when dealing with an acutely serious patient.

Along with the questionnaire, the Free and Informed Consent Form was applied, ensuring the confidentiality of the answers written there and the right of voluntary refusal of the participants, and the work was approved by the Research Ethics Committee of the Universidade do Estado de Minas Gerais (Opinion: 5504462).

RESULTADOS

51 people were interviewed, of which 14 (27.45%) said they had already participated in some training in basic life support or first aid and 37 (72.54%) said they had not participated. Of those who said they had already participated in training, nine (64.28%) correctly answered the SAMU 192 number, compared to 24 (64.86%) among the group of people who said they had not done so, as shown in Table 1.

Among participants with some training, 10 (71.42%) partially or completely agreed that they would react calmly in the face of an emergency, seven (50.00%) stated that they would know how to perform CPR and seven (50.00%) mentioned that would call SAMU 192 if they saw a patient suspected of having a stroke (Table 1).

On the other hand, among those who stated that they had not participated in any prior training in basic life support or first aid, partially or completely agreed that they would react calmly in the face of an emergency, six (17.64%) stated that they would know how to perform CPR and 21 (56.75%) mentioned that they would call SAMU 192 (Table 1).

Regarding whether or not they had experienced previous emergencies, 24 people (47.05%) answered “yes” and 27 (52.95%) “no”. Among those who answered “yes”, 19 (79.16%) correctly answered the SAMU 192 number, 16 (66.67%) partially or completely agreed that they would react calmly in the face of an emergency, nine (37.50%) stated that they would know how to perform CPR and 18 (75.00%) mentioned that they would call SAMU 192 if they saw a stroke (Table 2).

On the other hand, among those who responded negatively, only 14 (51.85%) knew the SAMU 192 number, 11 (40.74%) agreed partially or completely that they would react calmly in the face of an emergency, four (14.81 %) stated that they would know how to perform CPR and 10 (37.03%) mentioned that they would call SAMU 192 (Table 2).

Table 1. Comparison between groups that have or have not already studied something related to Basic Life Support. Passos - MG, Brazil, 2023.

	Know the SAMU phone number	Would be calm in the event of a cardiovascular emergency	Would know how to perform CPR	Would call SAMU in the event of a stroke
Completed a Basic Life Support course	09 (64.28%)	10 (71.42%)	7 (50.00%)	7 (50.00%)
Did not complete a Basic Life Support course	24 (64.86%)	17 (45.94%)	6 (17.64%)	21 (56.75%)

CPR: Cardiopulmonar Ressuscitation; SAMU: Serviço de Atendimento Móvel de Urgência.

Table 2. Comparison between groups that have or have not witnessed someone unconscious. Passos - MG, Passos, 2023.

	Know the SAMU phone number	Would be calm in the event of a cardiovascular emergency	Would know how to perform CPR	Would call SAMU in the event of a stroke
Have seen an unconscious person	19 (79.16%)	16 (66.67%)	9 (37.5%)	18 (75.00%)
Have never seen an unconscious person	14 (51.85%)	11 (40.74%)	4 (14.81%)	10 (37.03%)

CPR: Cardiopulmonar Ressuscitation; SAMU: Serviço de Atendimento Móvel de Urgência.

DISCUSSION

The percentage of people who know the SAMU 192 number and who would remember to call it in the event of a stroke was slightly higher among those who had never taken first aid and basic life support courses, which may have occurred due to the sample size. On the other hand, the percentages of people who partially or completely agree that they would be calm in the face of a cardiovascular emergency and of people who know how to perform CPR were higher among those who had already taken a basic life support or first aid course.

Comparing those who have already seen a person unconscious with those who have never experienced a similar situation, it was obtained that the percentages of people who correctly answered the SAMU 192 number, who totally or partially agree that they would be calm in the face of a cardiovascular emergency, which state that they would know how to perform CPR and that they mentioned that they would call SAMU 192 in the event of a stroke, it was higher among those who witnessed an unconscious person, which reinforces Skinner's premise that behavior tends to be conditioned by previously lived experiences⁶.

Training in first aid and basic life support is extremely important for people, since the participation of the population is part of the principles of the Unified Health System (SUS)⁷. Training all citizens would significantly change the scenario found in the current research, as 35.29% of respondents (18 out of 51) did not know the SAMU 192 number.

Only 14 out of the 51 interviewees (therefore, 37.83%) stated that they had already taken part in basic life support training. This number is unsatisfactory and corroborates a scenario in which mortality caused by delays in providing aid is high. As in another research that demonstrated that the rate of provision of basic life support in Denmark increased from 20% to 50% between 2001 and 2012, a period in which mandatory teaching of basic life support in basic education was implemented⁸.

Another important fact is that only 13 of the 51 interviewees (25.49%) stated that they would know how to perform CPR correctly. A review demonstrated that the percentage of people who can identify Cardiorespiratory Arrest (CPA) after receiving training on basic life support tends to rise from 20% to 94.3%, which justifies an increase of more than 470%⁹. All these factors, therefore, justify the need to invest in teaching basic life support for the general population.

CONCLUSION

Individuals who claimed that they had already witnessed acute cardiovascular decompensation and/or had already undergone first aid training were more likely to intervene more correctly than those who had not previously had similar experiences.

Based on this, it was noticed that previous experiences tend to positively influence the conduct taken in the face of new emergencies that may occur, making it necessary for the dissemination of the correct SAMU 192 call number to be more widespread, so that the service arrives faster at the location of the acute event and, in this way, the potential health problems for the victim are reduced.

Furthermore, based on the fact that intervention by qualified people in the first minutes of the injury can save the victim's life, it is necessary to carry out realistic simulations of basic life support during the period of basic education, in order to make people able to perform the first actions before the arrival of SAMU 192.

As a limitation of this study, there is the sample size and being linked to only one health service. At the same time, the work draws attention to a possible need for training in basic life support for the population as a whole and thus, other studies with a larger sample size and health services are also suggested.

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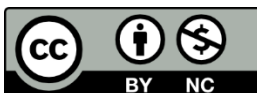
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