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# CONCEPTION OF PHYSICAL EDUCATION STUDENTS ABOUT BASIC LIFE SUPPORT IN THE COVID-19 PANDEMIC SCENARIO

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Abstract: **Objective:** То know the conception of physical education academics about BLS in the context of the COVID-19 Methodology: pandemic. Qualitative study with intervention with students of the Physical Education course at a Public University. Data collection was carried out through the application of pretest questionnaires, followed by a semistructured interview, intervention course and post-test questionnaire. The findings were submitted to Bardin's content analysis. Resolution 466/2012 of the National Health Council was observed at all stages. Results: There were 25 participants, of which 19 are women, 16 are aged between 20 and 25 years old, 18 are single, 18 declared themselves to be black. There were 5 academics from each semester, all duly enrolled and with the first aid course completed. It was found 16 academics who do not participate in any research and extension center and 13 have already participated in events or training on Basic Life Support, without due updates regarding BLS in the context of the covid-19 pandemic. Three categories also emerged from the analyses: 1) Conception of physical education students about Basic Life Support, which was accompanied by a subcategory: "Self-perception of students about the limitation of knowledge about and its impacts"; 2) Difficulties of physical education students regarding the BLS theme in the context of the covid-19 pandemic; 3) Paths and strategic possibilities for the qualified performance of physical education students regarding the BLS in the scenario of the covid-19 pandemic. Conclusion: The academics' conception of BLS is still limited, especially in the context of the COVID-19 pandemic. In addition, incomplete and ineffective knowledge impacts on insecurity and exclusion of professionals in their work with CRA.

**Keywords:** Training process, Academic training, basic life support, knowledge, cardiopulmonary resuscitation.

#### INTRODUCTION

In recent years, there has been an increase in the population that practices some type of physical activity, either with the aim of achieving a better quality of life or concerned with aesthetics. This practice promotes increased metabolism, heart and respiratory rate, which increases the risk of sudden events, including Cardiorespiratory Arrest (CPA). That is, despite being beneficial, physical exercise, if in excess or done improperly, can be a risk factor (SILVA et al 2019).

According to INCOR (Instituto do Coração do Hospital das Clínicas), an average of 221,000 people die from a cardiorespiratory arrest in Brazil and, contrary to what many believe, performing physical activity, in certain circumstances, corroborates this data., even in people who don't even want to have risk factors, such as underlying diseases.

Cardiorespiratory Arrest (CRP) can be defined as inefficiency or loss of cardiac mechanics, respiratory and brain functions, which can affect people of any age and for various reasons. In view of its relevance and because it is considered a public health issue worldwide, CRP, when identified, requires a rapid start of Cardiopulmonary Resuscitation (CPR) maneuvers. Such maneuvers are organized in an updated protocol and published every 5 years by the American Heart Association. The protocol consists of essential guidelines that determine the steps to be followed from the intra and extra-hospital survival chains, showing the relevance of each link for a good result (GONZALEZ et al. 2013).

Based on what is established in the protocols, the professional or trained layperson is required to have theoretical, technical and practical knowledge, speed and efficiency during CPR maneuvers. To this end, knowledge is considered a very important factor in urgent and emergency situations, being a fundamental tool for providing adequate assistance (UFRGN, 2021).

The Basic Life Support (BLS) reflects important actions to be carried out, whose impacts on the victim's survival are extremely high in a positive way and can be carried out by the physical educator. Thus, physical education professionals, in their work environment, need to be trained and confident to act, and when knowledge about the subject is present in the academic trajectory of students, it has beneficial effects for professional training and, consequently, performance in the maneuvers of the SBV (UDJT, 2019).

Due to the pandemic period and the confrontation with a new virus, which took a long time to find an effective vaccine or methods for complete elimination and zero dissemination, care for patients suffering from cardiorespiratory arrest in the context of the COVID-19 pandemic has some particularities, especially regarding the greater risk of aerosols during chest compression and ventilation maneuvers, which poses a relevant risk of contamination for those who are providing care, as well as for the team.

In view of the above, the following guiding question emerged as the object of this study: "What is the conception of physical education students about Basic Life Support in the scenario of a pandemic by covid-19"? To answer this question, the objective is: To understand the conception of physical education academics about Basic Life Support in the scenario of a pandemic by covid-19".

# METHODOLOGY

This is a qualitative intervention study, carried out in a public educational institution, in a municipality in the state of Bahia, with 25 academics duly enrolled in the Education course and who have already attended the first aid curricular component. The research was approved by the Research Ethics Committee (CEP) under opinion number 5. 253,124 and the participants who agreed to participate signed the Free and Informed Commitment Term (TCLE).

The data collection for the research was initially through the application of a structured pre-test questionnaire, composed of 09 multiple choices closed questions. Then, a semi-structured interview with an average duration of 20 to 30 minutes was scheduled, in a single remote room, in compliance with Resolution No. 329/2020, which involves surveys recorded remotely. Information such as the identity of participants was kept confidential.

The next collection phase was a qualification course with the participants, carried out face-to-face, free of charge and lasting 4:00 (four hours). The course was divided into two moments: theory and practice, the latter being a daily simulation for realistic training. At the end of the course, the initial questionnaire was repeated, now considered as the post-test, in order to be able to measure the importance of training for improving knowledge.

For data processing, the content data analysis technique was performed (BARDIN, 2016). In the first phase, skimming reading of all speeches was carried out, after duly transcribing the interviews, these speeches being organized in a single file, containing 25 answers for each of the questions asked in the interview. In this initial reading, it was possible to constitute, based on exhaustiveness, representativeness, homogeneity and relevance, key words, as well as impact phrases, highlighting all the lines that approach the proposed objective. In addition, the necessary corrections and correlations were made between the questionnaires and the final evaluation in the training that took place in the qualification course.

The exploration of the material, which constitutes the second phase, constituted the coding operation, from the clipping of the record and context units, these words and phrases being linked to the theme and object, considering the clippings of the texts in units of records. Next, enumeration was carried out according to the previously established criteria, with frequency being established as an item. After defining counting rules, it was possible to perform the classification and aggregation of information into thematic categories.

The analysis of the questionnaires used as a criterion the correctness index of each group referring to each semester. It was evaluated, from the quantitative, in an associative way with the period in which each group had contact with this theme, from the first aid curricular component offered in the course schedule, as a way of understanding if this knowledge was up to date and sufficient to act in a PCR situation.

As for the course offered, at the end of the theoretical explanation there was a practical moment followed by a final moment of simulation, where the participants acted in pairs or trios facing the imposed circumstances.

# RESULTS

In the sociodemographic categorization of the 25 participants, in the study it was seen that, 19 are female, 8 male and 18 declared themselves to be black. As for age, there is a variance between 20 and 31 years; 23 are single and only 2 are married. About the cities of origin, 15 are from the city where the University is located, and 9 from surrounding cities or other states. In terms of religion, 11 declared themselves to be Catholics and another 11 considered themselves to be without religion.

In the questions about academic training, 13 participants stated that they had taken training on the subject at some point, most of them through the Academic League of Emergency Nursing of the University itself. Questioned about participation in research centers, only 9 affirmed participation. On the other hand, the remaining 16 are linked to extra-curricular internships in academies or educational institutions.

In a comparative way, between the first moment of the questionnaire (pre-test) and the second (post-test), the greater the time interval of contact with the curricular component First Aid or course on the subject, the smaller the number of scores obtained in the pre-test. In short, the questions with the most errors were aimed at understanding the cardiac arrest protocol, from identification to compressions and defibrillation. However, after the training, it was possible to verify that, because it was a more recent approach, the success rates for the number of academics who participated in it and answered the questionnaire were higher.

In the speeches of academics related to the guiding question of the study, three categories emerged: 1) Conception of physical education academics about Basic Life Support and a subcategory: self-perception of academics about the limitation of knowledge about BLS and its impacts ; 2) Difficulties of physical education students regarding the BLS theme in the context of the covid-19 pandemic; 3) Paths and strategic possibilities for the qualified performance of physical education students regarding the BLS in the scenario of the covid-19 pandemic.

# CONCEPTION OF PHYSICAL EDUCATION STUDENTS ABOUT BASIC LIFE SUPPORT

Initially, from the speeches, it was possible to perceive that some academics, due to the varied experiences with the theme or the absence of them, have different degrees of knowledge about BLS, especially in the pandemic context, which has undergone updates. However, despite this, it is possible to see that most recognize the importance of this knowledge, especially in the pandemic period, as can be seen in the statements:

> P5 – "Basic life support is important both pre-pandemic and post-pandemic, because we are subject to maneuvers and knowledge about urgency and emergency, especially for people who are teachers, who are there on the court with students (...)".

> P8 – "(...) basic life support even before the pandemic, it is essential for us to provide support to the person who is there, feeling sick (...) This is not something to be memorized, it is something to be learned, it is very important."

In addition to the importance, the participants associate the theme with the professional practice they carry out in various fields, assuming that it is essential, in addition to a differential for professional performance and for those who are affected, who need care, as can be seen Next:

P12 – " (...) it is very beneficial to have this knowledge. In addition to the differential, because this knowledge does not reflect only now, but also in the future, where demands arise (...)"

P24 - "(...) We have to be prepared to be able to act correctly so that we are not the cause of future consequences. As well as the issue of COVID."

In the pandemic scenario, there have been numerous changes in various segments, with health in its broadest aspect being one of the areas that has suffered the most readaptations. Through the speeches, physical education students recognize that they are part of this group that makes up the health area, even with a curriculum focused almost exclusively on the degree, as well as realizing the importance and the need to discuss issues related to their association with the pandemic period at graduation, as follows:

> P 20 (...) Even knowing that the curriculum I find myself in is very focused on the teaching degree, I think that even though it is a teaching degree, we are also health in all the places we work, even in the classroom, because we have no control over the events.

> P 5 – We are an area that has a direct connection with people's health, hence the need for us to know these theoretical and practical foundations, because that is what will make us professionals of excellence.

For this reason, the participants emphasize the importance of knowledge and the ways to acquire it since graduation, since the preparation brings security for an effective performance, recognition as a health professional and removes a little dependence on other professionals and disbelief herself as a health professional, as can be seen in the statements:

> P 17 - (...) as a health student, we have to be aware of various information about situations that we may encounter, related to urgency and emergency and also in the scenario, which in this case is still the COVID pandemic (...)

Thus, it is observed that the academics, despite recognizing the importance of the BLS, have certain limitations of knowledge, report of insecurity to act and professional mischaracterization, highlighting the need to explore more about the subject even in graduation.

# SELF-PERCEPTION OF ACADEMICS ABOUT THE LIMITATIONS OF KNOWLEDGE ABOUT BLS AND ITS IMPACTS

By recognizing that, in fact, this content is important for professional practice and that they do not feel safe to provide assistance as it must in fact be, the academics highlight the need when talking about their limitations and how they are perceived in their experiences. in the field, as can be seen in the statement:

P8 – "At one stage, a receptionist had a seizure and not everyone was able to help him. Some were aware day to day and I just tried calling "to" SAMU. I was faced with this situation and did not know what to do."

The feeling of unpreparedness brings not only the limitation of knowledge, but also intensifies emotional issues, such as fear, anxiety, insecurity and a feeling of impotence.

In the pandemic context, in particular, knowledge about the specificities and changes that occurred on the theme of this study is fundamental for promoting the safety of the team, the professional and the affected individual, however, it is perceived through the speeches analyzed so far and discussed that the available knowledge is characterized as insufficient, configuring the self-perception and self-recognition of weaknesses reported in the following statement:

> P5 - (...) If someone is feeling sick, either I help or they die, if it were a pandemic, I would do what I learned in the course and I would probably be infected.

The self-perception of limitations related to knowledge and its impacts is something present in most academic reports. In addition, through the individual experiences of each one that required interventions, they served to make them realize even more the importance of this knowledge and that, although little discussed, does not mean that it is something with low recurrence and relevance.

# DIFFICULTIES OF PHYSICAL EDUCATION STUDENTS ON THE SUBJECT BASIC LIFE SUPPORT IN THE COVID-19 PANDEMIC SCENARIO

The main reported difficulty is a reflection of what physical education courses have been facing in recent years: the dissociation between the baccalaureate and the teaching degree. This change alters the entire teaching schedule and plan and brings with it issues that mischaracterize and segregate the profession, reflecting on what is perceived in the speeches of academics:

P9 – "(...) we are considered a course in the health area and it is in a health department, but in a course that is a degree with a grade dedicated to that. It really confuses and is a problem."

When little is discussed about something that is so important, the idea is fed that the discussion and having mastery over these contents is not relevant, or that they will not have to deal with situations like these in their practical activities, as can be seen in speech:

> P11 – "I think that sometimes there is a lot missing in terms of talking about urgency and emergency in the physical education course, because people are very addicted to physical exercise and do not talk so much about this important part that we can easily find in practice. "

The physical education course addresses BLS in a single moment, through the first aid curricular component, with an average of 40h/class. Due to the short period of approach, this component is seen as another basic discipline, with the workload being very low so that the professional can be trained and qualified to act in a practical and clear way in the face of different emergency situations, not simply being stuck with the theoretical content.

# STRATEGIC PATHS AND POSSIBILITIES FOR THE QUALIFIED PERFORMANCE OF PHYSICAL EDUCATION STUDENTS ON BLS IN THE SCENARIO OF THE PANDEMIC BY COVID-19.

In the third and last category, the students point out, according to their experiences and realities, suggestions for change, especially with regard to the proper characterization of the course as a whole, as can be seen in the following statement:

P1 – "(...) I think they must bear in mind that this reality exists and could change, including the course more in health and not just in the degree"

In addition, due importance to the approach and discussion of the BLS, as well as these situations in a pandemic context, are exposed from the suggestions for readjusting the grid, with emphasis on approaching this content, both in theory and in practice, more in-depth and early, therefore, consistent with the demands charged for internships in the external environment, perceived by means of the following statements:

> P6 – "(...) I believe that a deeper understanding of these emergency issues, of this basal human biological part, gives a greater foundation."

In addition, it can also be noted that the academics are able to envision the possible results to be achieved from the suggestions and their adoption by the course, as well as the impacts, in theory positive, that would be achieved through this change, as shown by the following speeches:

P8 – "(...) These changes would be a differential, in addition to increasing the quality of the approach and assistance to the student."

P20 – "(...) it has to be routine, because it is not something that we pick up from one

hour to another, but with routine. This way, the result would be more security, property and differential (...)"

# DISCUSSION

All participants had contact with the subject through the first aid curriculum component offered or through paid or free courses, even if it was only a theoretical approach. However, when the discussion extends to the pandemic context, lack of knowledge is evident in the participants' arguments.

Research carried out by Vieira and Huber (2020), reaffirms the previous idea by saying that, although all academics in their sample had attended graduation in person and had attended first aid, most demonstrated that they did not have knowledge about resuscitation guidelines and consequently, they report unpreparedness to act, regardless of the pandemic context of COVID. Another study, carried out by Santos (2021) finds that Physical Education students have relative knowledge about CRP, about the first care to be provided to the victim, but demonstrate insecurity to perform CPR maneuvers efficiently.

It is noted, based on the results of the aforementioned authors' research, in line with what is discussed in this article, that even if the participant is studying or has recently attended the component offered, the knowledge acquired is sufficient to recognize the importance of the content, momentarily, however, insufficient for them to understand the protocol, its changes with COVID and execute it in practice, safely and properly.

Bearing in mind that there is a limitation in knowledge and the impacts caused, it is important to think beyond adequate practice. It is essential, first of all, to understand the importance and what these impacts are, based on more frequent discussions. A primordial tool to promote health and develop prevention methods, making it essential to disseminate information that can cooperate with intervention in emergency episodes and education (MORAIS; LIMA and NOGUEIRA, 2019). And it is through it, within graduation, that these academics can have more access to what is worth knowing about the topic discussed in this study.

A study carried out by Tavares and Costa (2017) adds to the discussion of the subject within graduation that there is an unpreparedness of students and also of teachers regarding the subject: basic life support and first aid in schools. Knowledge is seen as insufficient, as professionals, as well as academics, do not know how to act in situations that compromise health, generating risk to the vital state of individuals.

predominance The of insufficient knowledge, increased insecurity, limitations regarding identification and conduct due to not knowing what to do, is a reality also seen in the research carried out by Morais and collaborators (2019), entitled: "Cardiorespiratory Arrest: Knowledge, Attitude and Practice of academics", which the result stated that the students interviewed had knowledge about what a cardiorespiratory arrest was but, on the other hand, reported not knowing how to perform the resuscitation maneuvers or did not know efficiently, this being an alarming result, since that these students went through the first aid discipline and possibly did not have a constant practice that would provide them with security and confidence to perform CPR efficiently.

The limitation of knowledge about what the course actually represents has repercussions on the way learning is formulated. In the present study, the academics are in a course called a degree in physical education, with a curriculum predominantly focused on the full degree, but in a health department. What can be seen in the participants' reports is that little is said about issues related to health, about the possible problems that may occur to the public they are dealing with, in the work environment and how to act in the face of these situations, being contradictory to what advocates the laws and advice of the profession.

Research carried out by Deltano (2017) brings in its results the fact that in the undergraduate degree, with some exceptions, no discipline teaches basic first aid procedures. As a result, teachers do not know how to act when health is in danger, which brings risks to life. The important factor analyzed by the team in the research process is that professionals with a bachelor's degree who have specializations or periodic training in first aid, in the event of an emergency, may be better prepared to deal with this situation. This reality is present in reports of insecurity and feelings of unpreparedness.

In the present study, the academics suggest that there must be, initially, an evaluation regarding the curriculum, the course as a whole and even more, about its characterization in fact. This way, the early training of academics, since their introduction in the university environment, can be a substantial measure for the improvement of practice, the reduction of errors in procedures and the stimulation of a critical sense for the need to share this knowledge beyond the walls university students, aiming at training the community for which it is being graduated and aiming to offer correct and effective assistance ( BEZERRA; SUARÉZ & SOUSA 2021).

Studies on this theme show that periodic training is crucial for the learning process and the participants of the current study report the same importance. Therefore, they suggest that they be systematically established as a means of enhancing knowledge, collaborating with quality academic training. This training is early and continuous.

# CONCLUSION

The present study concludes that the academics' perception of the guidelines is hampered by the lack of knowledge and contact with in-depth, updated content and periodic practice. The insufficient approach to the subject during graduation promotes the dissatisfaction of academics about training to care for people who may have a CRA and concern about the future, since it is a professional duty to act in this context, evidencing the need for improvement.

This way, the strategy is to provide actions that express the transversalization of teaching, research and extension in the process of training physical education students on the BLS theme in the context of the COVID 19 pandemic.

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