

LEVEL OF KNOWLEDGE OF EARLY CHILDHOOD EDUCATION PROFESSIONALS IN A PUBLIC DAY CARE CENTER REGARDING PROCEDURES PERFORMED IN THE FACE OF CHOKING IN CHILDREN

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ABSTRACT

Early childhood education is essential for a child's development, but it also faces challenges such as airway obstruction by a foreign body (Ovace), known as choking, which causes more than 2 thousand deaths annually in children under five years of age in Brazil. The Lucas Law (2018) made the training of education professionals in first aid mandatory, highlighting the Heimlich maneuver as an effective technique. Young children are vulnerable due to their tendency to bring objects to their mouths and difficulty chewing. Schools, where children spend a large part of the day, are often unprepared for emergencies, highlighting the need for training. The study aims to evaluate the knowledge of professionals in a public day care center about procedures in the face of choking.

Keywords: Early Childhood Education. Choking.

INTRODUCTION

Early childhood education involves any form of education of the child, that is, the child in the family, community, society and culture. According to the National Curriculum Reference for Early Childhood Education (RCNEI), Brazil, (1998), the institution of early childhood education is one of the spaces for the insertion of children in the ethical and moral relations that permeate the society in which they are inserted. It is considered the first stage of basic education, helping in the psychological, physical and social development of the child¹. Among the unplanned injuries, usually known as childhood accidents, those caused by aspiration of a foreign body stand out¹.

Airway obstruction by a foreign body (Ovace), also known as choking, results mainly from failure in the laryngeal closure reflex, inadequate swallowing control, and aspiration of objects. The signs that the child may present are coughing, nausea, agitation of the limbs, absence of and, above all, bringing hands to the throat. In Brazil, even with a decrease in the values of injuries not in children in recent decades, more than two thousand deaths are still observed annually in children under five years of age due to aspiration of a foreign body, occupying the

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tenth position among the main causes of death in this population group, which represents an important public health problem¹.

The total number of deaths from choking reported in children aged 0-9 years in Brazil from 2009 to 2019 was 2,148. The average number of cases per year, from 2009 to 2019, was 195.27. In the decade under consideration, the rates of deaths from choking in this age group showed no major changes, ranging from 174 in 2018 to 233 cases in 2013 (an increase of 33.9%)². The vulnerability of young children to this occurrence is highlighted, especially those under four years of age, since at this stage of childhood there is a natural tendency to take objects to the mouth, in addition, these children have little experience in chewing and swallowing. Lethality is related to the ineptitude to request help and, when such an occurrence does not result in death, permanent injuries and incalculable physical, social, economic and emotional repercussions for the child, family and society can arise and sometimes extend from adolescence to adulthood¹. Considering that the school environment is where children spend most of their day, this is a scenario where health problems can affect child health with greater incidence. Thus, education professionals are more likely to witness accidental events, needing to intervene immediately, including in the face of foreign body aspiration¹.

In 2018, in Brazil, Law No. 13.7225 was sanctioned, which determines the first aid training of teachers and employees of schools, public and private, of kindergarten and basic education. Known as "Lucas Law", it is a tribute to a child who died in 2017 after choking on a snack during a school trip¹. Early diagnosis of choking is essential, as delay in its recognition and treatment can result in permanent sequelae or fatal damage. The Heimlich maneuver is suitable in first aid intervention to clear airways for all age groups, but the application varies according to the child's length and level of consciousness¹.

The technique consists of applying pressure to the diaphragm to expel air from the lungs and consequently free the airways¹. Evidence indicates that early childhood education professionals are generally unprepared to act in first aid situations, even if they have already experienced professional practice with children, and agree with the importance of the subject for daily school life¹.

Therefore, education activities for the prevention and management of unintentional injuries are essential to prevent, identify and intervene in the face of choking in children. The average survival rate for those who do not receive primary care decreases every minute, losing 7% to 10% of the chance of survival³. The vast majority of schools and daycare centers in Brazil are not able to deal with emergencies, which is why it is extremely important that school management trains these professionals to ensure the safety of students present at school³.

Studies show a high rate of choking-related events in children, according to the federal government more than 94% of cases of choking asphyxia occur in children under seven years of age, due to the need for quick help⁴. In view of the current scenario, it is of scientific importance to analyze the level of knowledge of early childhood education professionals in a public day care center regarding procedures performed in the face of choking in children.

OBJECTIVE

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METHODOLOGY

It was a descriptive research, with a cross-sectional design and a qualitative-quantitative approach. As it is a research involving human beings, it was submitted to and approved by the Research Ethics Committee under Consolidated Opinion No. 7.001.758 and CAAE No. 81667624.4.0000.5518.

The research was carried out in a public daycare center in the municipality of Formoso do Araguaia-TO, with early childhood education professionals. The inclusion criterion was Effective early childhood education professionals from a public daycare center in Formoso do Araguaia-TO, of both sexes. The exclusion criteria were: Early childhood education professionals who did not agree with the Informed Consent Form, early childhood education professionals with incomplete completion of the questionnaire, early childhood education professionals who were temporarily away from the institution during the collection period, lunch cooks, janitors and doormen. After applying the inclusion and exclusion criteria, 22 early childhood education professionals were evaluated.

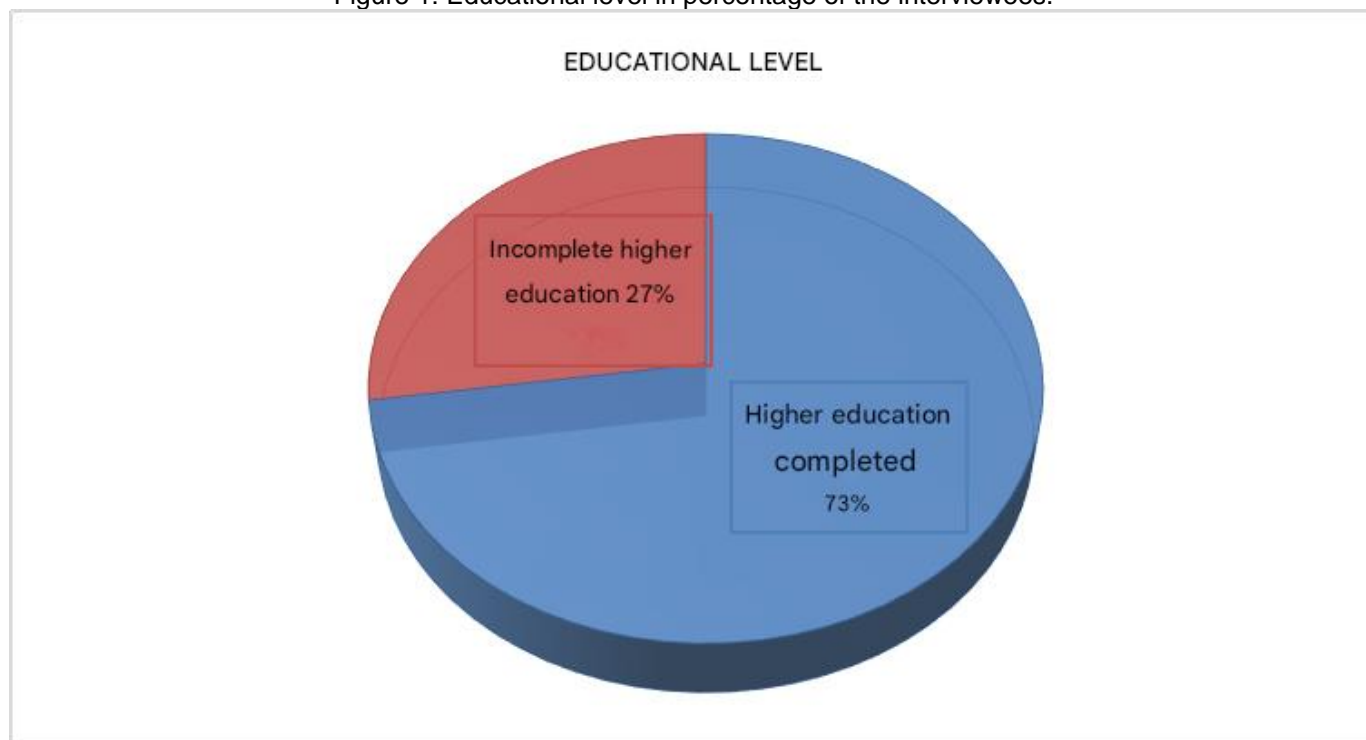
Data collection was carried out in September 2024. The questionnaires were applied on a single day, on Tuesday from 7:00 a.m. to 11:00 a.m. and from 1:00 p.m. to 5:00 p.m. Data were collected using a questionnaire with 19 questions in person developed by the authors. There were questions that were easy to understand, such as: sociodemographic variables, experience with first aid, specific knowledge, variables related to attitude, and variables related to aptitude. For the interpretation and analysis of the collected results, Pearson's correlation coefficient was used and presented through graphs and tables.

DEVELOPMENT

In this stage, the data collected from the study population (n=24) with a total predominance of females are presented, with a mean age variation of 38.95 among the interviewees, an average of 2.3 years of experience with education/child care in day care centers, and a working day ranging from 20 to 40 hours per week. The researched women presented themselves among the occupations as class assistants, assistant teacher, pedagogue, teacher, monitor, vice principal, secretarial assistant, school manager and pedagogical coordinator.

As shown in figure 1, the level of education of the interviewees is presented, with a percentage of 73% reporting complete higher education and 27% incomplete higher education, but with complete high school.

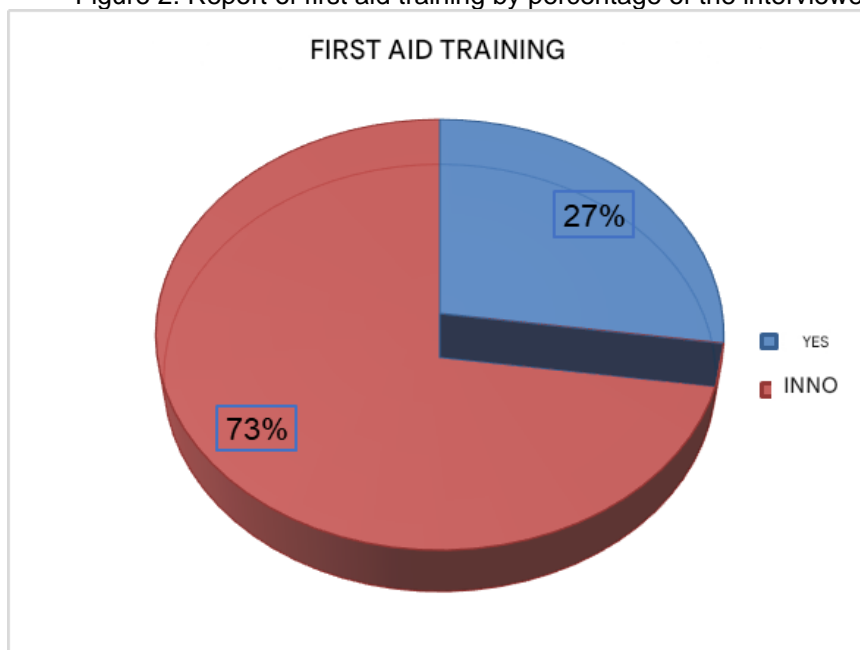
Figure 1: Educational level in percentage of the interviewees.



Source: Authors 2024.

Figure 2 presents in percentage one of the scenarios investigated among the population regarding participation in first aid training, observing a worrying scenario where 72.80% of the respondents reported not having experience in training for the management of adverse events related to choking.

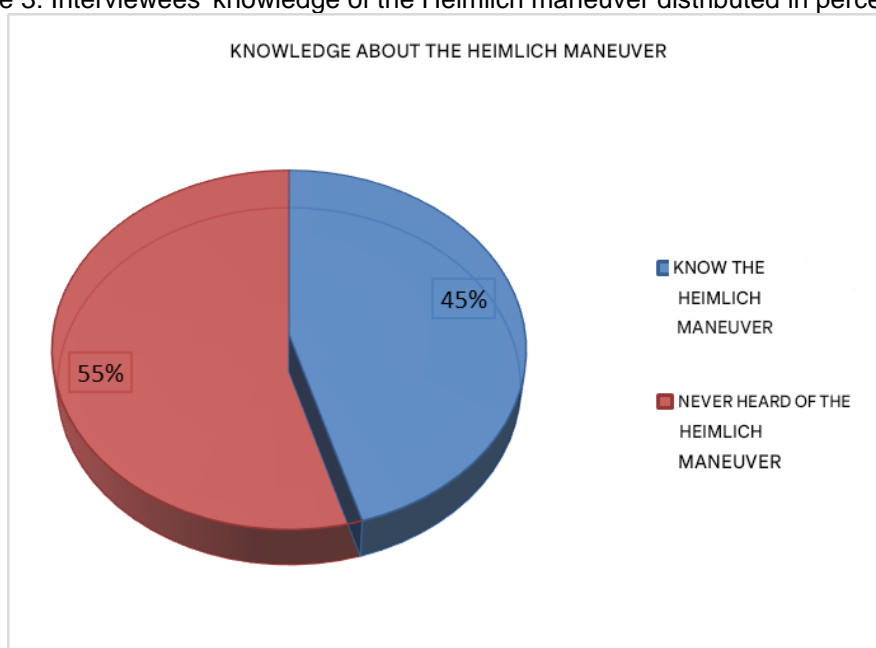
Figure 2: Report of first aid training by percentage of the interviewees.



Source: Authors, 2024.

Another scenario investigated, as shown in figure 3, presents data regarding the interviewees' knowledge of using the Heimlich maneuver in case of need, the percentage of 55% for the report of not discerning the technique led to a worrying scenario. In the questionnaire submitted, there was a question in which it was about first aid training events made available by the institution to the unit's team, among the population only one subject answered positively for the occurrence of the training.

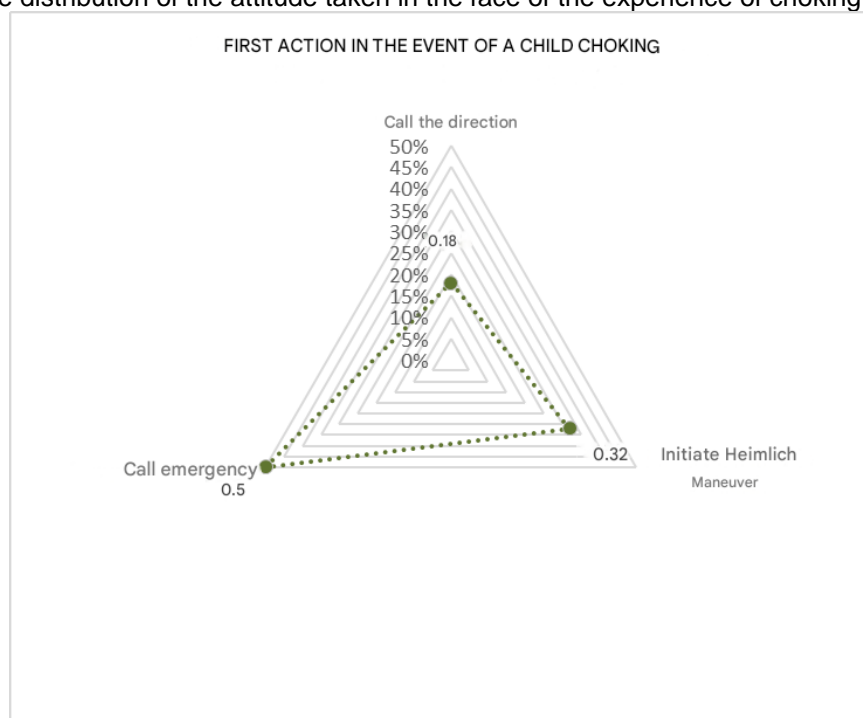
Figure 3: Interviewees' knowledge of the Heimlich maneuver distributed in percentage.



Source: Authors 2024.

Figure 4 shows a percentage distribution in relation to the first attitude to be taken by the investigated women in the study in the face of choking events in children in the unit where they work. Since 50% reported seeking help by calling the emergency as a first action, 35% would initiate the Heimlich maneuver while 18% mentioned seeking support from the principal. Of the contacts cited for emergency were 190, 192, 193 and the local hospital number.

Figure 4: Percentage distribution of the attitude taken in the face of the experience of choking in children in the unit.



Source: Authors 2024.

Another questionnaire raised was about whether there was a lack of knowledge about how the research would be oriented in the face of what happened, the answers collected mentioned that the attitude would be to call the direction to make the correct decisions, call the closest colleague, place the child in the prone position, call the emergency, try to calm the child and later call the emergency, I would encourage the child to cough, insert my finger into the child's throat, offer water and light slaps on the back and take him to the emergency room. In this sense, when questioning the perception of the need for first aid training, 23 of the respondents reported interest in training. When asked about having experienced a case of choking, only 6 of the participants reported that they had experienced the event, correlating it with a possible low incidence of choking in children in the unit.

Table 1: Product-moment correlation coefficient between linearly comparable variables.

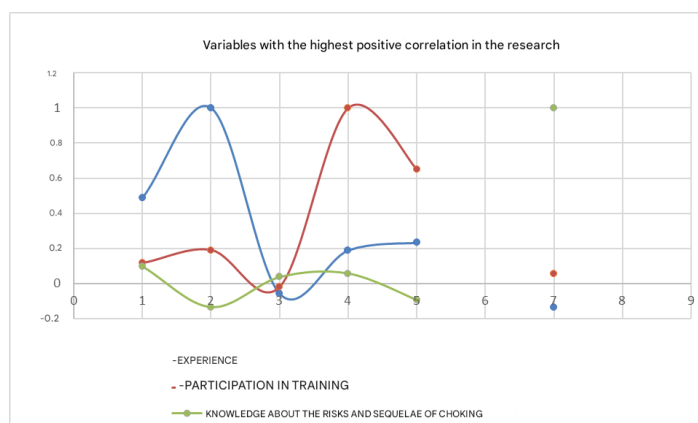
	AGE	EXPERIENCE	COMPLETE HIGHER EDUCATION	PARTICIPATION IN TRAINING	STUDIED FIRST AID IN THE CURRICULUM	KNOWLEDGE ABOUT RISKS AND SEQUELAE OF CHOKING
AGE	1	0,488541	-0,09247	0,115023	0,050311	0,096021
EXPERIENCE	0,488541	1	-0,0587	0,189289	0,232375	-0,13727
COMPLETE HIGHER EDUCATION	-0,09247	-0,0587	1	-0,01992	-0,01293	0,035635
PARTICIPATION IN TRAINING	0,115023	0,189289	-0,01992	1	0,648886	0,055902
STUDIED FIRST AID IN THE CURRICULUM	0,050311	0,232375	-0,01293	0,648886	1	-0,09673
KNOWLEDGE ABOUT RISKS AND SEQUELAE OF CHOKING	0,096021	-0,13727	0,035635	0,055902	-0,09673	1

Source: Authors 2024.

There is a correlation between positive values, i.e., when one variable was high, the other tends to increase, in negative values it is the opposite, when one variable is high the other tends to decrease, it is noted that there was a tendency to have higher education and not to have participated in training (-0.01992) with a negative value. It is evident that even with a certain level of experience in choking events, there is low knowledge about risks and sequelae if not reversed in time.

Another scenario identified with correlation (-0.01293) where the respondents with complete higher education reported not having studied first aid in the curriculum, while those who mentioned having undergone the training in their curriculum reported not having knowledge about the risks and sequelae of choking (-0.09673).

Figure 5: Significant correlation of the variables experience, participation in training, and knowledge about the risks of sequelae due to choking.



Source: Authors 2024.

According to figure 5, the variables with the highest significant correlation presented in the statistical context were experience, participation in training and knowledge about risks and sequelae of choking.

According to Ribeiro⁵, first aid is a set of fundamental actions to perform on victims in the face of emergencies. First aid can be understood as immediate care to be promptly offered to an individual who has suffered an accident or sudden illness, with the aim of preserving vital functions and preventing the worsening of their condition until the arrival of qualified assistance.

According to Brito⁶, accidents in daycare centers are a serious problem in public education, in the environment of early childhood education institutions, children are more susceptible to accidents, because in addition to the vulnerability caused by their own age, the change to daycare can induce a high degree of tension, interfering with behavioral patterns.

Children are individuals vulnerable to the risk of accidents, since they are in full growth and cognitive and motor development, thus causing the behavior of these children to change routinely according to the discoveries of new skills. This process is evidenced by the change in the home environment for the educational institution, so that education professionals must be able to act correctly in the face of an urgent or emergency situation⁷.

For Ferreira⁹, the absence of training and preparation in first aid reflects negatively on health management processes, manifesting itself in the lack of immediate care or in the execution of inadequate procedures, as basic knowledge in first aid prepares education professionals both in the educational spheres and outside them, enabling the provision of help in the crucial minutes after an incident. However, when faced with an emergency situation in the school environment, teachers are unprepared to act correctly, as teachers do not acquire knowledge about first aid in a specific way during the graduation period and do not undergo training later.

In this sense, Leite¹⁰ states that education professionals do not have sufficient knowledge about first aid, which is important for prevention, evaluation and conduct in urgent and emergency situations that occur in the school environment, and these professionals should receive training to know how to act in the face of an accident situation, because despite being simple measures, they are essential for the subsistence of life and the prevention of diseases.

Thus, health education practices are measures that present significant results for the formation of knowledge in first aid for education professionals, being a method developed by the School Health Program, in which it determines measures for health promotion to be carried out in the school environment¹¹.

Castro emphasizes compliance with Law No. 13,722/2018 to ensure a safe environment for children and professionals. In view of these circumstances, the research sought to identify the level of knowledge of professionals and their aptitude in the face of a choke, and notoriously education professionals do not feel prepared and have not been instructed to deal with this event effectively. Since teachers and monitors need training in first aid and confidence to provide care to the victim. The importance of first aid in the act of an accident should be worked on, thus preventing the minor from worsening his condition.

This study indicates the relevance for health education practices with emphasis on first aid for early childhood education professionals to be an intervention practiced in day care centers, since this knowledge is of great importance and that educational practices are positive, according to the results presented.

FINAL CONSIDERATIONS

Accidents in the school environment are quite common and there is a lack of preparation of teachers and daycare center employees to act in the face of a first aid situation. In addition, it was possible to

identify a concern of professionals for not having adequate theoretical and practical knowledge on the subject, making it even more difficult to provide care when necessary.

The research showed that teachers and employees have insufficient knowledge, attitudes and practices to perform first aid, despite the fact that they are the ones who witness and most of the time perform the first care in the school environment. This lack of preparation can have consequences for the child and impact the treatment and prognosis. In relation to the knowledge on which the school community bases its attitudes towards first aid, common sense stands out, generally without a scientific nature.

It is hoped that the present research will enable the development of other studies, understanding and addressing the gaps related to the teaching strategies and methodologies used to train teachers and employees in daycare centers for the care and practical performance of first aid.

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