KNOWLEDGE OF THE COMMUNITY HEALTH AGENTS ON DOMESTIC ACCIDENTS WITH CHILDREN

CONOCIMIENTOS DE LOS AGENTES COMUNITARIOS DE SALUD SOBRE ACCIDENTES DOMÉSTICOS EN NIÑOS

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ABSTRACT

Objective: to understand the knowledge of Community Health Agents (CHA) on domestic accidents in children under 5 years old. Method: this is a descriptive and exploratory study, action research type, with eight CHA of a Basic Health Unit (BHU) in Floriano (PI), Brazil. There were interviews conducted using a semi-structured script, analyzed by content analysis. Results: the analysis showed an environmental, physical structure, aspects of devices and security measures and the relationship of supervision (or its lack) with the accident and aspects of the child as the characteristics of a safe environment. Conclusion: the CHAs have some theoretical knowledge to carry out preventive activities of domestic accidents, built more by empirical experience than from a specific and consistent training. Descriptors: Domestic Accidents; Child; Community Health Agents.

RESUMO

Objetivo: compreender o conhecimento dos Agentes Comunitários de Saúde (ACS) sobre os acidentes domésticos em crianças menores de 5 anos. Método: estudo descritivo-exploratório, do tipo pesquisa-ação, com oito ACS, de uma Unidade Básica de Saúde (UBS), em Floriano (PI), Brasil. Realizaram-se entrevistas utilizando um roteiro semi-estruturado, analisadas pela técnica de análise de conteúdo. Resultados: a análise evidenciou como características de um ambiente seguro: a estrutura física do ambiente, aspectos relativos aos dispositivos e medidas de segurança e a relação da supervisão (ou falta dela) com a ocorrência do acidente e aspectos relativos à própria criança. Conclusão: os ACS possuem alguns conhecimentos teóricos para a realização de atividades preventivas de acidentes domésticos, construídos mais pela vivência empírica do que proveniente de uma formação específica e consistente. Descriptores: Acidentes Domésticos; Criança; Agentes Comunitários de Saúde.

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CON NIÑO
INTRODUCTION

Domestic accidents are one of the main causes of death and disability in children worldwide, and they are recognized worldwide as a major public health problem, with significant costs for society, as they represent a major cause of hospital admissions. It is known that the house is a very common place for injuries among children under five years old.

Domestic accidents with children under five years old are complex situations and reveal a serious public health problem, because as well as social, economic and emotional costs, accidents in childhood are also responsible for non-fatal events and consequences that in the long-term effect on the family and society, penalizing children and adolescents.

The importance of this phenomenon is evidenced by a study conducted in Brazil aimed to analyze information relating to 7,123 victims less than 10 years old of external causes, assisted by the services included in the survey VIVA 2009 across the country, showing that, 6,897 children assisted were victims of accidents (96.8%) and 226 (3.2%) of violence. Most of the cases (66.6%) occurred at home, which is associated statistically site accidents (p=0.0234); cuts were the most frequent lesion (35.7%), followed by injury. Also, of the total number of children, 60.5% were up to five years old.

With regard to Piauí, the assistance by accidental causes in public emergency services in Teresina-PI were almost all cases of trauma in the state, pointed out the home with a greater proportion of children and adolescents in all the features of the place of occurrence. This situation indicates the need to know the determinants and conditions with wide relationship of social, cultural, individuals and their families, define the lifestyle of the parents, the physical living environment conditions, as well as the children’s socialization.

Another factor that may contribute to the high incidence of accidents is in the peculiarities of childhood. Children have characteristics that make them more vulnerable to accidents, especially the physical, behavioral and mental immaturity, inexperience and inability to foresee and avoid dangerous situations and because they live in environments designed for adults.

Even in this context of accidents at home, there is the Community Health Agent (CHA) as one of the professional responsible for promoting family health, including for vulnerable children to accidents. By developing their work, in particular in family conjunction, this health team member emerges as an important professional, both from the perspective of accident prevention, including the detection of environments conducive to accidents involving children and the guidance of preventive measures, as in the handling of cases where it was not possible to avoid injury. The CHA routine consists of educational practices directed to the specific or general preventive care and health promotion that improve the quality of life, with the main focus on the family and as an instrument for the home visits.

Also in this perspective, the CHA work in preventing domestic accidents in childhood pointed out in the Practical Guide of the Community Health Agent of the Ministry of Health, which emphasizes between the actions of disease prevention and health promotion of the child, encouraging compliance with the immunization schedule, the active search for missing vaccines and consultations, the prevention of accidents in childhood and encourage breastfeeding. It also states that children living with many risks and dangers every day, accidents are among the five leading causes of death in childhood and can compromise the future and development of the child.

Given the important role that the CHA plays in the prevention of accidents in childhood, it is essential to understanding their knowledge from the perspective of domestic accidents to identify gaps in their education as a promoter of health, so that new information is provided to motivate further research regarding child safety in the home environment.

OBJECTIVE

- To understand the knowledge of Community Health Agents (CHA) on domestic accidents in children under 5 years old.

METHOD

A descriptive study of a qualitative nature, with the action research method. The scenario selected for the study was a device (Basic Health Unit - BHU) of the
Knowledge of the community health agents...

Primary Care Network, located in Floriano-PI. The sample was composed of eight Community Health Agents (CHA) registered in this BHU, with the selection criteria: CHA who attended a scheduled meeting for the purpose of presentation of the research project and who voluntarily agreed to participate in the research and data collection strategies. All voluntarily signed the consent form, with the anonymity and confidentiality of information secured and identified by the CHA code followed by the corresponding Arabic numeral, according to the numbering order of the data collection instrument.

The technique was the individual interview by a script satisfaction information about sociodemographic characteristics of the study participants and guiding questions from March 2014. The interviews were recorded on a voice recorder, and a diary field to record important information regarding non-verbal communication and para-verbal was used. This step was configured as the exploratory phase of action research.

After the interview, the speeches were heard and transcribed, and the content was analyzed in three stages, according to Bardin content analysis. First, there was a pre-analysis through floating reading material. Then, exploration of the material was carried out, the categories were defined and finally condensation of information for reflective and critical interpretation.

This research was carried out from the research project database “accident or careless: the home environment and its risk factors for injuries in children” registered in the Dean of Research of the Federal University of Piauí. This research was conducted after consideration of the research project and approval by the Ethics Committee in Research of the Federal University of Piauí (UFPI), in the opinion No 530,717/2014, as envisaged in the resolution 466/12 of the National Health Council (CNS).

RESULTS

There were eight CHA participants; six were women (75%), and two were males (25%), aged between 32-47 years old in both genders. On the level of education, all of them have completed high school, three have a technical course in any health area, and one is completing graduation. Most of the participants have been operating for over ten years as CHA (87.5%), showing a better understanding of the community in which they work.

From the life and professional experience of CHA, it was possible to learn a little about their theoretical conceptions regarding the home and its security environment. Thus, it was realized that the CHA group pointed out as characteristics of a safe environment for the age above, environmental, physical structures, devices and security measures, the relationship of supervision with the accident and aspects of the child.

♦ Environmental, physical structure and its relation to domestic accidents

According to the CHA, it is possible to see in this category, that for the establishment of a safe environment, it is essential to a comprehensive framework that promotes comfort, and without physical barriers that may predispose the accident, such as stairs, open wells and sockets located at inappropriate times. These views can be evidenced in the following speeches:

[...] he is curious, then we have to avoid sockets closer to him [...] windows without bars. (CHA II)

[...] A house that had not both cliff [...] many steps, which have secure doors, do not well, because we still have much home to those wells type water hole, houses with children under five years old, of course, that the person covers it with boards, more suddenly a child step over that board [...]. (CHA IV)

It can be seen that the CHA is aware of how a home physical structure adapted for a child can avoid domestic accidents, seeking to guide families to such adaptations, although it is not always possible due to the socioeconomic level of the community does not provide necessary financial conditions for the adaptation of homes.

♦ Use of devices and security measures to suit the environment

Understanding that many times, the changes in household structure is not possible due to the socio-economic conditions of the families, the CHA presented measures, more economically viable for the local reality, that prevent an accident at home, without necessarily modifying the physical structure. The CHA said they guide the use and protection devices and safety measures to try to transform unsafe home environment:

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[...] Do not let the knife on the table, do not let these easy cleaning products where children see. (CHA III)

[...] Do not let pots on the fire, match or lighter nearby. So keep it all. (CHA VI)

[...] If possible those caps, those protections, bleach, be in the cleaning of the closet, alcohol, medicine also has to be always high, so he did not have access. (CHA V)

For this CHA, more than adequate physical infrastructure is a change with respect to “what you have”, that is, it is believed that for them it would be easier to put a “protection in the socket” than having to change the physical structure of the residence, on account of the economic issue of the community they serve. Thus, strategies taken as protectors or put cable facing pots inside, requiring fewer resources to be implemented, appear more palpable and at the same time effective for the transformation of an unsafe environment. Moreover, it is clear that these strategies are also widely publicized by the media.

♦ The relationship of the supervision with the accident

The CHA claimed supervision or lack of supervision of caregivers for the promotion of safety in the home environment:

[...] To me, a safe house have to have someone always there to look at that person. (CHA III)

[...] So, keep it, and ask a close neighbor[...] always ask to stay looking. So, this is a safe environment. (CHA VI)

[...] I think it would be, is [...] with a responsible adult, always an eye on the children. (CHA VIII)

It can be observed that the discourses of the CHA indicated supervision as an effective strategy for the prevention of accidents, concluding that, on this point, outlined knowledge has limitations, since it is understood that the mere presence of a caregiver in the home does not guarantee the safety of children. For this security, there are several factors involved and measures to reduce accidents with children.

♦ Aspects of the child that contribute to accidents.

Through the reports, it was revealed that some of the CHA show the child as guilty, to report that accidents result from “naughty” or the curiosity of this phase, pray to victimize, saying that the accident arises that the “child is helpless” or “do not know anything” or because the child is learning or imitating someone. This idea is supported by the statements:

[...] For sure, because he does not know anything. (CHA III)

[...] Because the child has no limits, they mess up anything[...] (CHA V)

[...] We have to have a sharper focus on children under five years old on this issue, because of boy always blind us, we think you are right here if we flash the boy disappears[...] (CHA VII)

It can be seen in the speeches that these professionals do not clearly show the child’s act as they want to explore the environment to the development phase they are. Nevertheless, it was noted during the study that there are some reports that are still trying to relate, even if incipient, the accident to the child’s development process, linking this to the age/stage (helpless), learning (want to learn, lack of knowledge), the attraction to the new (color, fire, insects, animals), and imitation/repeat, as shown in the statements below:

[...] Certainly[...] children under five are learning all[...] want to learn[...] see something, go and do[...] he sees his father doing and want to do the same. (CHA I)

[...] So, he needs a much greater attention, and safe too. If you pass security to that child, that child will be safe in the future. It is the basis. It is the age you are doing a base for him. (CHA VI)

From the speeches that emerged during the study, it was observed that although in some situations the CHA show some knowledge about the prevention of accidents, there is still a gap to be filled on this subject and also concerning theoretical knowledge growth and development of children under five years old and their relationship with the occurrence of home accidents.

Thus, when asked about participation in training courses, all indicated interest in participating and pointed out the themes to be worked out as shown in Figure 1. Also, other themes emerged based on the speeches of the CHA, and the knowledge gaps demonstrated during the speeches.
Topics to be addressed in interventional proposal requested by the CHA

| Training on all topics related to domestic accidents; |
| Training on care to avoid electric shock; |
| Training of care according to the phases of growth and development of children; |
| Training in first aid; |
| Training on how to store objects and products in safe locations to avoid accidents. |

| Topics to be addressed in interventional proposal determined by the gaps of knowledge demonstrated in the speeches of the CHA

| Specific training on child growth and development; |
| First aid training with emphasis on management of domestic accidents involving children; |
| Training on the influence of home physical structure for the domestic accidents involving children, with emphasis on accidents from falls that were underreported; |
| Training on measures and devices able to collaborate to prevent a domestic accident with the child, especially accidents involving suffocation (with plastic bags, for example), strangulation (with cords and wires, for example); flammable products (such as ethanol), accidents with poisonous animals, which were not mentioned. |
| Training on places of the home environment that can predispose to domestic accidents involving children, especially bedroom, bathroom, laundry area and patio, which were minimally cited by the CHA; |
| Training of qualified supervision strategies; |
| Training on issues related to the growth and development of children and their relationship with domestic accidents. |

There is no specific ministerial recommendation on the appropriateness of household structure in preventing accidents with children. However, similarly, it can be considered the basic infrastructure parameters established by the Ministry of Education for educational institutions, which include school spaces for children’s education. This standard is to establish the general requirements for architectural designs for construction, installation, and operation of kindergartens, as well as establish security measures for the children living in these environments, seeking to provide ideal conditions for their growth and development.13

In this sense, considering that the two environments - daycare and household - follow the same pattern of adaptation, because it is living environments for children aged zero to five years old, some preventative measures of accidents presented by the document above, should be considered for the home environment and therefore guided by the CHA, such as windows should be made with a height of 1.5 meters of floor area, allowing a height out of reach of children and achieving good ventilation and a light and airy environment, must be sealed with grids and screens to prevent accidents; the internal spaces should be organized, comfortable and welcoming allowing the child’s development and the operation of the secure environment; floors should be slip resistant; switches must be mounted out of

Table 1. Topics to be addressed in the interventional strategy to be conducted together with the community health agents of the basic health unit Paulo Kalume, in the city of Floriano, Piauí, Brazil, in 2014.

**DISCUSSION**

Regarding the environment category of physical structure and its relationship to domestic accidents, the speeches of the CHA indicate some elements that also treated by the Brazilian Association of Technical Standards (ABNT), which established the Brazilian Norm 9050, in 2004, aiming to propose greater number of people, regardless of age (including children), height or limitation of mobility or perception, the use of autonomous and safe way for the environment and spaces. Bringing this approach to the home context, and from the perception that a child, especially in the age group of zero to five years old, it deserves special attention and adjustments in the home to reduce health risks should be developed.11

In this regard and accordance with the aforementioned regulatory provision, adapting it to the home environment where the children live, some guidelines, present in the speeches of the CHA are supported by this standard, as an indication that stairs should be non-slip with handrails on both side and rounded edges. However, a knowledge gap can be identified when there was no report of participants on rugs that may predispose the risk of accidents caused by falls, for example. The importance of environmental adaptation is something important since scholars have brought down as one of the most common forms of unintentional home injury12.
reach of children protective of electrical discharges.\textsuperscript{13}

As the category \textit{Use of devices and security measures to suit the environment}, studies show that the high prevalence of accidents in the home environment is the result of several factors that predispose children to risk. Among these factors, the provision of improperly moving, the exposure of the tiny and capable of being swallowed objects, product placement and medicines in the reach of children as well as the display of sharp objects are contributing factors to the accident. They point out preventive measures - condition and properly store materials constituting a threat to the physical integrity of the child; know the toxic properties of the products used and the side effects of drugs - which minimize the incidence of such health problems. However, for such actions to be effective, it is necessary to know the environment in which children live, identifying situations of risks, so that in this way, planning strategies and changes can be carried out.\textsuperscript{14,5}

The CHA highlighted to known also, measures and arrangements related to exhibitions and inadequate accommodation of drugs and objects within reach of children as preventive strategies. This is an orientation already well publicized in leaflets/medicine packaging and commercial advertisements, due to the requirement imposed by the drug status by the Decree-Law No. 176/06, guidance that drugs and chemicals should be stored out the child's reach.\textsuperscript{16}

However, even though this observation by the CHA, there is a high number of reported cases of drug intoxication in childhood and may be the result of negligence by allowing the scope of medicines for children, and may cause accidental poisoning.\textsuperscript{17}

It is noticed that simple and inexpensive measures are employed by CHA, both in his personal life as a professional life, acting as an intervenor and health promoter adaptively to the financial conditions of their community. Therefore, these measures are of great importance and effectiveness, ensuring protection against domestic accidents and safety for the health of children. Following this direction, based on the knowledge presented by the CHA and supported with some recommendations of the Ministry of Health\textsuperscript{18}, exposed the practical guide of the Community Health Agent, guidelines for a safe environment are determined as use the mouths back on the stove and have cables pans turned inward; not let children near the stove; maintain high or protected sockets; keep sharp objects, medicines and cleaning products in high places out of reach of children, as well as small objects that could be ingested or inhaled.

Although the guidelines made by the CHA are effective, it is possible to identify limitations in the knowledge of these professionals about the measures and devices able to collaborate to prevent a domestic accident with the child, such as the fact they did not mention to measures to prevent accidents caused by suffocation. It is noticed a gap in the training of the CHA, because although the Practical Guide of the Community Health Agent, basic instrument for the CHA operation, bring as ways to avoid accidents the recommendation to keep out of reach of children objects such as plastic bags, cords wires and able to smother, mostly do not follow the ministerial recommendations.\textsuperscript{18}

The empirical knowledge of these professionals ultimately justifies their actions about the guidelines for the general population. Given the above, it is essential the existence of educational activities in the CHA working environment, to increase knowledge of this professional for education and prevention of accidents in children in the community in which they operate.

The category \textit{Relationship of supervision with the accident} that addresses the presence of a responsible adult to supervise the child at home endorses a safe environment in childhood. However, one study found that the presence of parents in the home does not guarantee that the children are protected from accidents since in 79.21% of cases the mother was present, and only 2.57% of the children were alone at home in 79.21% of cases the mother was present, and only 2.57% of the children were alone at home at the time of the accident.\textsuperscript{19} It is noteworthy also that the presence of an adult does not prevent the accident from occurring, because often they do not know how to prevent it, or engaged in other activities, failing to make a direct supervision of children.

Corroborating what was said, another study claims that some caregivers do not know the predictability of the risks existing in the home, exposing the statements the habit of leaving the child alone on a table, bed or sofa to change the diaper. Also,
there is the habit of delegating household chores or the task of caring for small children to other children under 10 years old.20

Research conducted in five Brazilian capitals to know the views and behaviors of mothers on accidents with children revealed that in many cases the mothers believe that supervise the child is a way to prevent. However, 89% of children were accompanied at the time of the accident, and in 73% the mother was present at the time of the accident. With these data, we can see that many of the mentioned accidents occurred with children accompanied by their mother.21

There is a similarity in other studies that adult presence does not prevent the accident from happening, perhaps unaware of how to prevent it or direct supervision not performed, that is, it is present in the environment, but busy with other activities.8

Within the category Aspects of the child that contribute to the occurrence of accidents, it is undeniable the need to recognize that, in fact, some child’s characteristics contribute to the increased risk of accidents. However, it is necessary to reflect, from the recognition of the multiplicity of factors from different dimensions interacting with each other, those other elements can be grouped as risk factors for accidents in children, including main/family caregiver, risk behavior, and the environment. About the risk factors relating to the child, there are: age, gender, presence of diseases or disorders, history of injury and sleeping hours.22

With regard to age, infant aged from zero to five years old is considered more vulnerable to accidents; requiring carrying full attention, because at this stage they are very active - phase of the specific characteristic of early childhood - a factor that makes common the occurrence of accidents.14 However, it is perceived that there was no correlation by the CHA, although health professionals of this intense curiosity and restlessness as healthy typical growth and development in young children.

A study in Cuiabá, Brazil, to understand the circumstances and factors associated with accidental deaths among children and young adolescents, reported immaturity, curiosity and intense growth and development of children as a risk factor to the accident, as well as cultural and social family factors.19

On the characteristics of each stage of a child’s life, it can be seen that each stage of preschool life (involving newborn, infant, toddler and preschool) has peculiar characteristics.23 Therefore, the notion of the stages of development and growth is essential for the CHA can be mediators of knowledge and act in the identification of risks for each stage, which ensures the transmission of attitudes and practices that minimize the risk of domestic accidents in children.

The physical vulnerability, immaturity, and curiosity of children development stage characteristics, can contribute to high rates of diseases in children age.24 Given these factors, another study confirms that the prevalence of high rates of domestic accidents in childhood is related to the stage of development of children and the interpretation of caregivers, the accident as the fate or chance, or as something common in this age group.2

Often, there is a clear lack of knowledge of caregivers about child development characteristics; most children charged as if they had appropriate insight and expertise to protect domestic accident.25

**CONCLUSION**

Concerning the professional Community Health Agent, it is known that they have a very important role concerning children’s health, but it is clear that the process of formation of this professional, still incipient, contributes to gaps in their knowledge hindering that activities related to the prevention of domestic accidents involving children are performed consistently and informed by theoretical and practical knowledge.

As for the formation of the CHA, there are some noticeable obstacles, since many are still completing the technical course in the area and, concerning specific courses already made, they said there is a poor training regarding the health of children, consisting, for the most part, only courses for the calendar basic vaccination and strategies for achieving vaccination coverage.

Thus, it is seen the need to focus this training change as the discourse on the practice of CHA in this study, both demonstrating professional dissatisfaction to this form of training, as shown, in fact, this...
professional does not make the possible actions for the prevention of domestic accidents involving children, recommended by the Ministry of Health, as their skills profile.

It was noted that the CHA has theoretical knowledge to carry out preventive activities of accidents in the home with children, identifying risk factors related to the caregiver, the environment, and child. However, important limitations were shown especially for a health professional, demonstrating knowledge built much by empirical experience than from a specific and consistent training.

Among the identified limitations, there is a lack of knowledge about the stages of growth and development of children and their correlation with a domestic accident; not mention of the domestic accidents of high importance for child health, including, suffocation, strangulation, chemical burns and accidents with flammable products such as ethyl alcohol.

Considering that education plays a central role in the dynamics of the actions developed in the work of the community agent, reflections of all health professionals in primary care are needed, especially the nurse who carries out the supervisory role of the CHA work, and managers of service health in different SUS performance spaces to (re) consider educational actions and the appropriate methodology to be developed with community agents, to encourage the construction of knowledge that will bring both personal benefit and for the community in general.

From these data constructed in the exploratory phase of action research, it is expected to propose an interventional buoyed strategy according to subjects requested by CHAs and also identified in the analysis carried out during the development of this study in three main dimensions: the environment (home physical structure measures and protection devices and locations in the home environment that can predispose to domestic accident); the primary caregiver (qualified supervision strategies); and child (growth and development and first aid).

REFERENCES


