

The use of light technology as a health education strategy about the main unintentional injuries in childhood: experience's report

Lidiane Assunção de Vasconcelos¹, Ana Júlia Góes Maués², Fernanda Tainá Oliveira da Cruz³, Hanna Ariane Monteiro Carrera⁴, Jessica Maria Lins da Silva⁵, Luana Gomes de Lima Martins⁶, Victória Lima Mendes Leite⁷, Eliza Paixão da Silva⁸, Osmar de Souza Reis Júnior⁹, Andrea Fabiane Aguiar Chagas de Miranda¹⁰, Tacilane do Socorro Rocha de Almeida¹¹, Andrea dos Santos Mendes¹², Hallessa de Fatima da Silva Pimentel¹³, Ivonete Vieira Pereira Peixoto¹³, Margarete Carrera Bittencourt¹⁴, Laura Caroline Ferreira Cardoso¹⁵

¹ Nurse, Master in Health, Environment and Society in the Amazon by the Federal University of Pará (UFPA), Belém, Pará, Brazil.

^{2,3,4,5,6,7,8} Academic of Nursing, State University of Pará (UEPA), Belém, Pará, Brazil.

⁹ Nurse, Health Secretariat of Pará, Belém, Brasil

¹⁰ Nurse of the Navy, Brazil.

¹¹ Nurse at Amapá State Health Secretariat, Brazil.

^{12,13} Nurse, Master in Health, Environment and Society in the Amazon by the Federal University of Pará (UFPA), Belém, Pará, Brazil.

¹⁴ PhD in Nursing from Anna Nery School, Federal University of Rio de Janeiro (UFRJ), Brazil.

¹⁵ Graduate in Nursing, State University of Pará (UEPA).

Abstract— Objective: describe the experience of using light technology as a health education strategy about the main unintentional injuries that occurred in childhood. Material and Methods: It is a descriptive study of the type of experience report describing the development of an exhibition activity and light technology. The activity was developed during the practices of the Curricular Components of Pediatric Nursing and Child Health, having as a strategy adopted the methodology of problematizing Berbel through the Arco of Maguerez, with five stages. Results and Discussion: Based on health education and the use of light technology, the team was able to obtain positive results regarding the activity, with a large public participation. Since listeners were given a moment to speak for reports of some cases that had occurred with a nearby child, a fact that provided a mutual environment of information and knowledge, with enriching reports for the team. Conclusion: Analyzing the activities developed and the results achieved during the health education action, it is concluded that the objective of the work was achieved, since during the action it was possible to guide users on the prevention of the main unintentional injuries that affect the children, counting on a significant participation of the users approached, be they parents, caregivers, uncles, grandparents, among others.

Keywords — Child, Child abuse, Health education, Violence, Primary health care.

I. INTRODUCTION

According to the World Health Organization, Injuries are a kind of traumatism usually caused by external factors. In Brazil, is about of 3,600 children aged 1-14 years die every

year and another 111,000 are hospitalized by unintentional injuries¹. This makes them a public health problem, as their greatest impacts are related to economic development and the country's production capacity. These impacts occur on

medical costs (hospitalizations, medication), non-medical costs (absence from work, replacement of the workforce), costs on missed opportunities (administrative costs in health) and other intangibles (changes in the productivity rate, job satisfaction, etc.), not to mention the emotional and psychological consequences of a family²

Here, the exchange of the term “accident” for “unintentional injuries” is punctuated, since the concept of accident is related to chance and unpredictability, and most of the situations thus defined can be prevented, through education, from changes in the environment environment and engineering, creation and compliance with specific laws and regulations. In this context, the current literature suggests that the term "accident" be replaced by "avoidable unintentional injuries" or "unintentional injuries" ³, the exchange of the term “accident” for “unintentional injuries” is punctuated, since the concept of accident is related to chance and unpredictability, and most of the situations thus defined can be prevented, through education, from changes in the environment environment and engineering, creation and compliance with specific laws and regulations. In this context, the current literature suggests that the term "accident" be replaced by "avoidable unintentional injuries" or "unintentional injuries"

The main unintentional injuries that occurred in the 0-14 age group in 2017 were traffic accidents with 1,190 occurrences, followed by drowning (954 cases), suffocation (777 cases), burns (217 cases), falls (181 cases)) and intoxication (79 cases) ¹ (BRASIL, 2018).

These events happen mainly in a 0-14 year age group and come about in home environment since the child spends most of the time in it; and the frequency of occurrence is higher in younger children² This is because they have physical, sensory, psychomotor and cognitive limitations, that is, their perceptions and motor coordination are not fully matured, in addition to being more exposed to risk factors. ³

Thereby, due to the high rates of morbidity and mortality resulting from unintentional injuries, in 2001 the Ministry of Health implemented the National Policy for the Reduction of Accidents and Violence, having one of the main objectives to reduce morbidity and mortality through articulated and systematized actions related to the promotion and preventing these events.⁴

In view of the presented scenario, it is clear that health education becomes a fundamental factor for the unintentional injury rates shown above, since the literature focuses on this being considered one of the most important resources in accident testing, and should be present in all the programs with this installation, including the

permanent forms in schools or other institutions, so that the educational process can be carried out.⁵

As previously mentioned, in the family context, children are more vulnerable to these accidents and families assume that they know the domestic environment very well, becoming less vigilant and, therefore, facilitate domestic accidents that have undesirable repercussions.⁵ Therefore, it is necessary that the family, which is culturally considered as responsible for promoting the safety and protection of its members, become aware and can effectively carry out this preventive care, which, in turn, is only possible through the realization of a health education. quality health, where there is the transfer of information necessary for this awareness.

Considering that health education as a pedagogical political process requires the development of critical and reflective thinking, allowing the unveiling of reality and proposing transformative actions that lead the individual to his autonomy and emancipation.⁶ Therefore, it becomes necessary that it be turned to assist the population in accordance with the reality in which they live, that is, pass on the appropriate guidelines to the parents and caregivers of these children in order that they perform this prevention based on the reality and financial situation in which they live.

For these guidelines to be effective and the target audience to absorb the knowledge passed on in a clear and coherent way, it is essential to use technology, which, according to Viana (2011) can be defined, in a very simple and generic way, as applied knowledge. In the case of health, it is applied knowledge that allows the prevention, diagnosis and treatment of diseases, and the rehabilitation of their consequences.⁷

Merhy (2002) classifies the technologies in three types: the light ones, which are those relational technologies, such as those of bond production, reception, autonomy. Which allows to generate information, for the health team and for the user, that allows the interpretation of the problems and the offer of new technological options of intervention, listening to the person and being understood by him, assuming the responsibilities of conducting and monitoring the cases where technological intervention is necessary.⁸ The light-hard ones, that is, the technologies-knowledge, which are the structured knowledge that operate in the health work process and the hard which are the machine tools, such as equipment, devices, standards and organizational structures.⁷

In this context, an experience report using Berbel's problematization methodology in conjunction with the Maguerez arch was developed by nursing students from the State University of Pará, where you chose to address the

use of light technology and health education as basis to promote an action in a Basic Health Unit in the municipality of Belém.

II. METHODOLOGY

This article is a descriptive study of the experience's report type which seeks to describe the development of an exhibition activity, using light technology, about the main unintentional injuries that can occur during childhood. This fact refers to the Integrated Health Activity of the Nursing course at the *Universidade do Estado do Pará* (State University of Pará).

The activity was developed during the practices of the Curricular Components of Pediatric Nursing and Child Health, which took place in different institutions, the first being carried out in a large Hospital, in the Umarizal neighborhood, a reference in pediatrics and other specialties, and the second played in the reception hall of a Basic Health Unit, located in the Condor neighborhood, municipality of Belém, State of Pará, from October to November 2019.

The strategy adopted was the methodology of problematizing of Berbel through the Arco de Maguerez, which has five stages. The first one refers to the observation of reality, which occurred during the practices of Pediatric Nursing, where the students made visits to the beds of the pediatric ward of the hospital and from these, they obtained the opportunity to observe the main problems that were experienced by the patients and that led them to hospitalization, as well as allowing closer contact with the children and their guardians.

Thus, it was possible to proceed to the second stage, which consisted of identifying the key points and was carried out during a socialization of the notes between the authors (students and advisors), where the main points that were observed during the previous step were elected.

Based on this, it was possible to define the theme of the action, since the authors agreed that the most relevant point to be discussed and worked on was related to the lack of knowledge of parents in relation to the environment in which they live and the risks that children run, due to several situations that occur during their daily lives, which was observed through the report of one of the mothers during the visits.

According to the mother's report, when her son was about to be 2 months old, she left him accompanied by his brother-in-law, who has Down Syndrome and went to the bathroom to bathe. When he returned to the room, he saw that his brother-in-law had placed a domino piece on the child's throat, which began to show breathlessness and bruises. He was immediately taken to the city hospital,

however, none of the employees was qualified to carry out any procedure, so they went to the state capital, Belém, where the piece was removed and the child managed to survive, however, now he finds it difficult to swallow and is eating per probe.

Subsequently, the third stage was carried out, based on theorization, when articles and books on the subject in question were sought, as a way of increasing understanding on the subject and supporting the later stages. Thus, the fourth stage consisted of the elaboration of a viable alternative to solve the identified problem, where the students opted for the use of light technology, which would contain images illustrating the main unintentional injuries that can occur during childhood.

The last stage, which consisted of returning to reality, was carried out during Child Health practices in a Basic Health Unit in the city of Belém. Where the students presented the light technology to the parents and caregivers who were present for their consultations, explained with the help of the technology of the main unintentional injuries and gave the necessary guidance on how to prevent them.

Finally, the students made the public feel free to report their experiences on the topic, enabling the educational return of the activity performed.

III. RESULTS AND DISCUSSION

From the application of the Arch of Charles Maguerez, it was possible to make expository presentations on posters, a series of speeches with fathers, mothers, grandparents, grandparents, etc., as what were the main themes for the results of this research, these speeches had for objective to address as unintentional injuries in childhood, to change domestic accidents as one of the main causes of this theme, emphasizing the need for knowledge about preventive measures, an end to reduce occurrences.

In view of the above mentioned, it has to be confirmed, punctuating unintentional injuries in childhood as incidents that occur, especially in environments that present some risk or danger. In addition, children under the age of six are more vulnerable, since they undergo physical changes, enriching their interpersonal and socio-environmental relationships, in addition to being subject to developing new skills. However, as they are still completely dependent on their caregivers, they do not have the ability to detect the risks to which they are exposed.⁹

The role of the Health Professional is essential, as she becomes an educating agent, who explains her educational activities to the community, emphasizing the risks, teaching how to proceed in relation to the safety of children, how to create favorable environments, among

others. Thus, the professional can contribute by exposing specific prevention measures in order to reduce these injuries incidents.⁹

During the return to reality, which took place in a primary care environment, the activity began with a brief introduction about the importance of knowing unintentional injuries and the ways in which they present themselves during childhood, as well as the responsibility for its prevention, by those responsible/caregivers, as provided by law.

At first, the public was somewhat withdrawn about the subject, however, with the course of the activity and with the exposure of the information, they began to show interest in the matter.

During the educational action, some important types of aid were explained, which could be provided if any of the injuries mentioned in the exhibition occurred, they were taken from the Ministry of Health's First Aid Manual. With emphasis on some reported care, he explained that: in the event of an electric shock, the main recommendation is to turn off the power supply, before coming into contact with the child; in case of trauma, it is recommended not to move or lift the child, but to wait for the health team; for burns, depending on the degree, running water in place for a few minutes is oriented; as for falls, the child's condition should be ascertained and referred to medical attention to avoid complications resulting from the shock; among other points.

In a second step, as the action progressed, a space was opened for the listeners to speak, which made it possible to obtain reports of similar cases of accidents with children close to them, providing an aggregating environment through mutual exchanges of knowledge, following some of them:

Report 1: "I already had a similar experience of what they are talking about, for example, my nephew one of these days was running to the middle of the street and ended up having an accident that you say are injuries, hitting a bicycle that was passing by at the time and ended up with a leg between the spokes of the bicycle and having an open fracture, as I already had first aid training, in the place where I work, I was able to mobilize his leg until the arrival of SAMU".

Report 2: "My wife's nephew, seeing an extension cord with bare ends and plugged in, out of curiosity as a child, was immediately in the bare part and was shocked by being stuck to the wall, luckily the worst did not happen, because his mother turned off the breaker as soon as he saw the situation and took him to the hospital".

Report 3: "I can say that these are facts that really as parents we must be aware of. One day my inattentive

sister on whatsapp forgot about my nephew (by the way, the first) for a few minutes, who seeing a pot handle exposed from the stove leaned on the stove and pulled the pan that was boiling water, result he had severe burns and ended up in the hospital with several days of hospitalization, including ending up in the ICU, and to this day he still has big scars all over his body."

However, with the statements above, it was possible to realize the relevance that thematic has in society, emphasizing that there is still a big gap regarding preventive measures. Because of this, socialization about the attitudes to be taken if they occur, focusing on the prediction of situations in which children are exposed to risk, avoiding the use of incorrect methods to solve accidents, encouraging the search for immediate help through emergency care. It has been the main purpose in reducing the risks of the aforementioned injuries.

Thus, it is important to note that health professionals, especially Nursing, have an active and mediating role in health education in the prevention of various agents, including injuries, considering that they have greater contact with the community, thus favoring the expansion of this education.

At the end of the activity, there was an immediate feedback from the listeners, in thanks for the action. Where it can be proved its relevance, as well as its help in the dissemination of knowledge. Finally, other invitations were received about the same activity, to be carried out at another time, aimed at the local community, with the aim of promoting greater educational reach in the community in action.

IV. CONCLUSION

Analyzing the activities developed and the results achieved during the health education action, it is concluded that the objective of the work was reached, since during the action it was possible to guide users with the use of light technology on the prevention of the main injuries not intentional attacks that affect children, counting on the significant participation of the users approached, be they parents, caregivers, uncles, grandparents, among others. Therefore, we realize that health education contributes to disease prevention, health promotion and engagement of the population and it is emphasized that in this context, nurses have an essential role in preventing the main unintentional injuries that affect children, since they are able to guide the population during nursing consultations, home care and community actions, about the problem and how to avoid it, the use of light technology being an important tool in its work, since it is a communication facilitator.

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