

MAIN CAUSES OF UNINTENTIONAL ACCIDENTS IN PEDIATRICS AND PREVENTION - LITERATURE REVIEW

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Abstract: **Introduction:** Unintentional injuries can occur in the domestic, urban, leisure or rural environment. **Objective:** To review the main causes of unintentional accidents in children and their prevention. **Result:** Paying attention to parents regarding the safety of children in different environments must be part of the consultation routine in Basic Health Units, as it represents an important problem and is associated with preventable infant mortality. **Conclusion:** In the first year of life, falls, suffocation, burns and foreign body aspiration are important causes of unintentional accidents. At the age of 2 to 5 years, falls are followed by suffocation, burns and drowning and, over 5 years, followed by being run over, burns and intoxication. Prevention takes place through different measures, specific to each case. In the context of adolescents, raise awareness about the dangers of alcohol use, domestic accidents, installation of bars on windows, nets on balconies, gates on stairs, bilateral handrails on stairs, positioning of pot handles facing the inside of the stove. As for parks, they depend on measures such as parental supervision, regulation of equipment and establishment of maximum height. In the rural environment, it is important that, in addition to supervision, physical measures are implemented, such as fencing wells; keep the child away from livestock; do not leave it near tractors or allow them to travel as passengers. **Keywords:** Domestic accidents; Disaster prevention; Primary prevention.

INTRODUCTION

Unintentional injuries can occur in the domestic, urban, leisure or rural environment. Generally, most of it happens at home, as it is where children spend most of their time (WEISSHEIMER AS, 2019).

About 73.01% of hospital admissions are due to external causes, including all age groups

up to 19 years old, and within these, falls rank first. In the first year of life, asphyxia, burns and foreign body aspiration are also important (DE FREITAS JC, et al., 2021).

At the age of 2 to 5 years, falls are followed by suffocation, burns and drowning and, over 5 years, falls are followed by being run over, burns and intoxication (DE FREITAS JC, et al., 2021).

Falls are also the main cause of abdominal trauma (closed or open) and fractures in the pediatric population (DE FREITAS JC, et al., 2021).

Based on DATASUS data, we can observe that transport accidents emerge as the main cause of death, followed by submersion accidents, occupying second place among children aged 1 to 14 years. The analysis of the distribution of drownings reveals a bimodal pattern, that is, it presents two peaks of incidence: the first occurs in children under four years old, while the second emerges in adolescents aged between 15 and 19 years old, always highlighting the predominance male (SANTOS ACA, et al., 2022).

Children under 1 year old are more vulnerable to drowning in environments such as bathtubs, toilets, buckets and tanks. Children between the ages of 1 and 4 face a greater risk in swimming pools, bathtubs, reservoirs and in the sea. In the age group of 5 to 14 years, fatal accidents occur mainly in swimming pools, lakes, rivers, dams and at sea (DE LIMA TF, et al., 2019).

It is worrying to note that among adolescents, 25% to 50% of cases of submersion accidents are associated with the consumption of alcoholic beverages. This correlation highlights the importance of raising awareness about the dangers of irresponsible alcohol use, especially when related to situations close to water (GASPAR S, et al., 2019).

These data emphasize the need to implement preventive measures and ensure

adequate supervision around water bodies. In addition, it is crucial to promote water safety education for both parents and children and adolescents, in order to avoid tragedies and protect the lives of our young people (GASPAR S, et al., 2019).

Burns are the third leading cause of death from trauma. In the Brazilian context, the agent most commonly associated with these occurrences is liquid alcohol, followed by electric current, chemical products and overheated objects (MAIA ARR, 2019).

Domestic accident prevention encompasses passive protection measures, which are based on the implementation of physical barriers in the environment. These measures include the installation of bars on windows, nets on balconies and windows, gates on stairs, bilateral handrails on stairs, as well as positioning pot handles facing the inside of the stove. In addition, we seek to use furniture without corners or sharp edges, adequate pool fencing and the use of safety nets to prevent falls and accidents that may occur in elevated areas. These practices aim to promote a safer home environment and protect the physical integrity of its residents (WEISSHEIMER AS, 2019).

In the urban environment, traffic accidents, especially pedestrians being run over, represent a significant concern, accounting for 70% of deaths in this group. According to SUS data, in 2006, 5,287 victims of traffic accidents were registered in children and adolescents aged between 0 and 19 years. Most of these occurrences involved adolescents between 15 and 19 years old (52.71%), with a predominance of males (79.15%) (DE FREITAS JC, et al., 2021).

Squares and parks are frequented children's leisure places, where most accidents occur. The toys most often associated with physical injuries are the jungle gym and slides. Among these accidents, 80% are caused by falls.

However, it is important to highlight that strangulation is the main cause of death in leisure environments (DE LAVOR CM, et al., 2023).

This information reinforces the need for effective preventive measures to ensure the safety of children and adolescents in the urban environment. A greater awareness of the risks of traffic accidents and the importance of respecting traffic regulations is essential. In addition, it is essential to be careful with the choice and proper maintenance of leisure equipment, aiming at the prevention of injuries and serious accidents. The safety of our children must be a priority in all aspects of urban life (DE LAVOR CM, et al., 2023).

In the rural environment, there are countless situations in which the child is exposed to danger, such as: drowning in wells, rivers and streams; tractor accidents; accidents with animals (cattle, horse), (DE LAVOR CM, et al., 2023).

The prevention of accidents in squares and parks depends on measures such as parental supervision, regulation of equipment, establishment of a limited maximum height (1.5 to 2.5 meters depending on the age group) for toys and the use of materials that absorb impact on surfaces (for example: cork, rubber, fine sand), (DE LAVOR CM, et al., 2023).

In the rural environment, it is important that, in addition to child supervision, physical measures are implemented, such as fencing wells; keep the child away from livestock; if you are going to practice riding, never tie the child to the horse and use a helmet to protect the skull; do not leave them near tractors or even allow them to travel as passengers in these vehicles (DE LAVOR CM, et al., 2023).

MATERIAL AND METHODS

The search was carried out in the PubMed database and was limited to articles between 2019 and 2023 that met the criteria of being literature reviews and case reports.

Then, the keywords of the titles of the articles were analyzed and those whose theme best fits our objective were selected.

Nine articles were selected for full reading.

DISCUSSION

Paying attention to the safety of children in different environments must be part of the consultation routine in Basic Health Units, as it represents an important problem and is associated with preventable infant mortality.

CONCLUSION

In the first year of life, falls, suffocation, burns and foreign body aspiration are important causes of unintentional accidents. At the age of 2 to 5 years, falls are followed by suffocation, burns and drowning and, with more than 5 years, falls are followed by being run over, burns and intoxication.

Prevention takes place through different measures, specific to each case. In the context of adolescents, raising awareness about the dangers of irresponsible alcohol use, especially when related to situations close to water, is an important factor. The prevention of domestic accidents includes the installation of bars on windows, nets on balconies and windows, gates on stairs, bilateral handrails on stairs, as well as positioning pot handles facing the inside of the stove. In addition, we seek to use furniture without corners or sharp edges, adequate pool fencing and the use of safety nets to prevent falls and accidents that may occur in elevated areas. The prevention of accidents in squares and parks depends on measures such as parental supervision, regulation of equipment and the establishment of a limited maximum height. In the rural

environment, it is important that, in addition to child supervision, physical measures are implemented, such as fencing wells; keep the

child away from livestock; do not leave them near tractors or even allow them to travel as passengers in these vehicles.

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