



## UNINTENTIONAL INJURIES IN INFANTS UNDER 1 YEAR AND RECOMMENDED PREVENTIVE MEASURES: A SCOPING REVIEW

ACIDENTES NÃO INTENCIONAIS COM CRIANÇAS ATÉ UM ANO E MEDIDAS PREVENTIVAS: REVISÃO DE ESCOPO

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**ABSTRACT:** The objective of this study was to map, in the health sciences literature, the main types of unintentional accidents that occur in children up to one year of age and the recommended preventive measures. This was a scoping review conducted in the Medical Literature Analysis and Retrieval System Online (MEDLINE), Latin American and Caribbean Health Sciences Literature (LILACS), Embase, Web of Science, and Scopus databases, and for gray literature, Google Scholar, the Digital Bank of Theses and Dissertations, and professional associations were consulted, resulting in a final sample of 21 articles. The main types of childhood accidents identified were falls, burns, drowning, suffocation, and poisoning, and the recommended prevention measures were primarily based on educational strategies. It is concluded that health education is essential for accident prevention, with programs in schools and healthcare settings aimed at raising parents' awareness of domestic risks, and that playful and interactive methods have proven effective in engaging families and facilitating the learning process.

**KEYWORDS:** Accidents. Accident Prevention. Newborn. Neonates. Infant.

**RESUMO:** O objetivo foi mapear na literatura das ciências da saúde quais são os principais acidentes não intencionais que ocorrem com crianças até um ano e quais as medidas de prevenção recomendadas. Trata-se de uma revisão de escopo, com busca nas bases de dados Medical Literature Analysis and Retrieval System Online, Literatura Latino-americana e do Caribe em Ciências da Saúde, Embase, Web of Science e Scopus. Para a literatura cinzenta foram utilizados o Google Acadêmico, Banco Digital de Teses e Dissertações e Associações de Classe. A amostra foi de 21 artigos. Os principais acidentes infantis incluem quedas, queimaduras, afogamentos, asfixias e intoxicações e as medidas de prevenção se pautaram em educação. Conclui-se que para a prevenção dos acidentes, é essencial promover educação em saúde, com programas em escolas e ambientes de saúde que conscientizem os pais sobre os riscos domésticos. Métodos lúdicos têm se mostrado eficazes para engajar as famílias e facilitar a aprendizagem.

**PALAVRAS-CHAVE:** Acidentes. Prevenção de Acidentes. Recém-nascido. Neonatos. Lactente.

## INTRODUCTION

Accidents are defined as preventable, unintentional events that result in physical and/or emotional injuries, with the term *unintentional* used to distinguish them from cases of violence. Globally, unintentional injuries in children represent a major public health concern, ranking among the leading causes of death, hospitalization, and disability.<sup>1,2</sup>

In 2021, the United States recorded 1,292 deaths due to unintentional injuries among children under 1 year of age and 1,284 deaths among those aged 1 to 4 years. These incidents included motor vehicle accidents, poisonings, falls, burns, drownings, exposure to mechanical forces, natural disasters, and other unintentional injuries. Similarly, in 2020, Brazil reported 678 deaths among children under 1 year of age and 1,016 deaths in the 1 to 4 age group due to unintentional injuries, based on the same categories.<sup>3</sup>

Given the magnitude of this issue, several legal frameworks in Brazil have addressed the problem. In 1990, the Child and Adolescent Statute (ECA) established the State's duty to implement measures for unintentional injury prevention measures, ensure parents have access to appropriate education, and provide support for applying this knowledge.<sup>4</sup> In 2001, the National Policy for the Reduction of Morbidity and Mortality from Accidents and Violence (PNRMAV) was introduced, recognizing accidents and violence as major external causes of morbidity and mortality in the country.<sup>1</sup>

In this context, the PNRMAV defines accidents as the result of human actions or omissions, as well as technical and social conditions. It sets forth guidelines and responsibilities focused on health promotion and prevention, covering all types of accidents and all age groups.<sup>1</sup>

In 2023, Brazil reported 15,740 preventable deaths in the neonatal age group (up to 28 days of life) and 5,449 deaths in the postneonatal period (from 28 to 365 days of life). In 2024, by May, 4,793 neonatal deaths and 1,446 postneonatal deaths due to preventable causes had already been reported.<sup>5</sup>

A review identified the main types of unintentional injuries affecting infants under 1 year of age as burns, falls, choking, motor vehicle accidents, animal bites, poisoning, and trauma.<sup>6</sup> However, the studies included in that review were conducted exclusively in Brazil, and the most recent ones were published in 2019,<sup>6</sup> which underscores the need for the present study, based on international databases, to broaden the current state of the art on this subject.

The authors of that review emphasized that to ensure infant safety, it is essential to expand awareness campaigns through mass communication (e.g., social media) and distribution of printed educational materials. They also recommended implementing new public policies focused on traffic education and investing in qualitative research to understand the root causes of injury rates.<sup>6</sup>

In 2006, Brazil established the VIVA System (Violence and Accident Surveillance System) to collect data and generate information on violence and injuries, supporting public health policies aimed at prevention.<sup>7</sup> Analysis of national data, policies, and reports shows that mandatory notifications are associated with cases of violence and fatal injuries in children, while incidents resulting in morbidity or disability are underreported.<sup>8</sup>

Given this context, it is essential to gather data on unintentional injuries involving infants under 1 year of age, as well as identify potential risks and the preventive measures adopted, in order to implement health education strategies that minimize the physical and emotional impact of these injuries throughout early childhood development.<sup>9</sup>

Accordingly, this study aims to map, in the health sciences literature, the main types of unintentional injuries affecting infants under 1 year of age and the recommended preventive measures.

## METHOD

### PROTOCOL AND REGISTRATION

This scoping review was conducted between July and September 2024, based on the five-stage framework proposed by the Joanna Briggs Institute (JBI): identifying the research question; identifying relevant studies; selecting studies for inclusion; charting the data; and collating, summarizing, and reporting the results.<sup>10</sup>

An initial search for similar studies was carried out in July 2024 using the leading health sciences databases. No publications with the same or similar objectives were identified within the previous five years.

The review protocol was registered with the Open Science Framework (OSF) under DOI: 10.17605/OSF.IO/5C6VD. The manuscript was prepared following the Preferred Reporting Items for Systematic Reviews and Meta-Analyses extension for Scoping Reviews (PRISMA-ScR) checklist.<sup>11</sup>

### ELIGIBILITY CRITERIA

The inclusion criteria encompassed original and review articles, dissertations, theses, undergraduate final papers, and manuals that addressed the study objective and were available in full text and free of charge in electronic format, published between 2019 and 2024, and written in English, Portuguese, or Spanish. Editorials, letters to the editor, opinion articles, studies conducted outside hospital or home settings, research involving adults, publications not aligned with the research question, and duplicate records were excluded.

### INFORMATION SOURCES

Relevant materials were identified through online searches in the following databases: Medical Literature Analysis and Retrieval System Online (MEDLINE), Latin American and Caribbean Health Sciences Literature (LILACS), Embase, Web of Science, and Scopus. Sources of gray literature included Google Scholar, the Digital Library of Theses and Dissertations (BDTD), and pediatric associations.

### SEARCH STRATEGY

To formulate the guiding research question, the PCC acronym was applied: P (Population) referred to newborns and infants under 1 year of age; C (Concept) addressed evidence of childhood injuries and preventive measures; and C (Context) encompassed hospital and home settings.<sup>10</sup> Accordingly, the guiding research question was: "What evidence is available in the literature on unintentional injuries involving newborns and infants under 1 year of age, and what preventive measures are recommended?"

To identify records on the topic, the following descriptors and alternative terms were selected: "Acidentes," "Prevenção de Acidentes," "Recém-nascido," "Neonatos," "Lactentes," "Accidents," "Accident Prevention," "Infant," and "Newborn," based on the Medical Subject Headings (MeSH) and Health Sciences Descriptors (DeCS). Boolean operators AND and/or OR were used to combine the terms. The complete search strings are presented in Table 1.

**Table 1.** Descriptors, keywords, expressions, and Boolean operators used to identify publications. Porto Alegre, RS, Brazil, 2024.

SEARCH LOCATION	SEARCH EXPRESSION
Medline	("accident"[All Fields] OR "accident prevention"[All Fields]) AND ("infant, newborn"[MeSH Terms] OR ("infant"[All Fields] AND "newborn"[All Fields]) OR "newborn infant"[All Fields] OR "newborn"[All Fields] OR "newborns"[All Fields] OR "newborns"[All Fields] OR ("infant"[MeSH Terms] OR "infant"[All Fields] OR "infants"[All Fields] OR "infant s"[All Fields]))
Web of Science, Scopus and LILACS	("accident prevention" OR accident) AND (newborn OR infant)
Embase	"accident prevention" AND (newborn OR infant)
Google Acadêmico and Digital Library of Theses and Dissertations	("accident prevention" OR accident) AND (newborn OR infant) ("Prevenção de acidentados" OR accident) AND ("Recém-nascido" OR criança)

Source: Prepared by the authors, 2024.

## SELECTION OF SOURCES OF EVIDENCE

The literature search was carried out independently by two researchers after the protocol had been registered, including publications available as of July 31, 2024. A third reviewer resolved any disagreements that arose during the selection process.

The studies retrieved from the databases were first exported to EndNote® Online for duplicate removal and then to Rayyan® for blinded screening. Sample selection involved title and abstract screening, followed by a full-text review based on the eligibility criteria. Reference lists of the included studies were also reviewed to identify any additional relevant studies that may not have been captured in the initial searches.

## DATA EXTRACTION AND PRESENTATION OF RESULTS

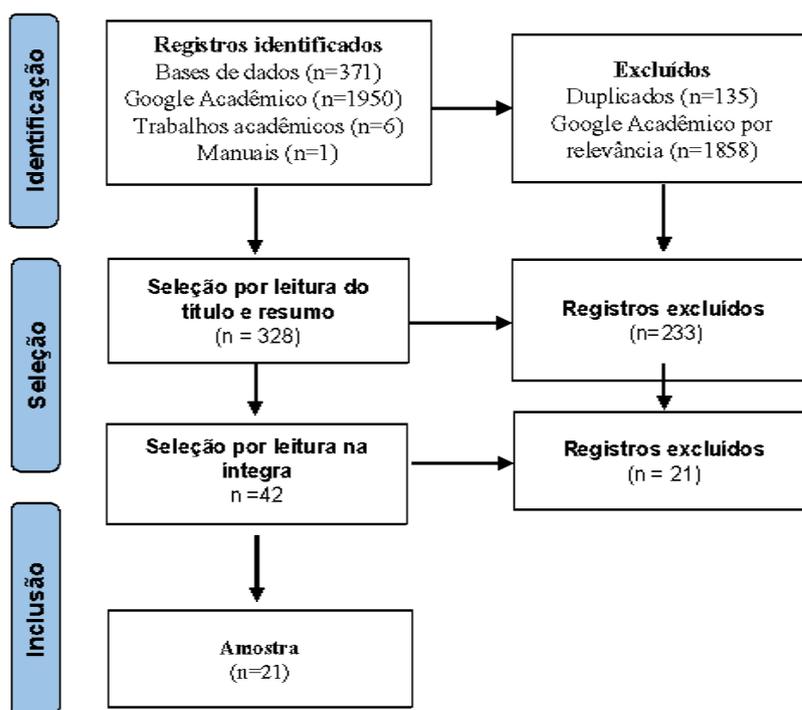
A data extraction table was developed using Microsoft Word®, including the following information: author names, title, journal, year, country, language of publication, study objective, study design, and type of publication. The extracted data were analyzed to present the state of the art on the topic. Study findings are reported descriptively using a summary table.

As this is a scoping review, submission to a Research Ethics Committee was not required. Nonetheless, the authors affirm that all sources were properly cited, ensuring the originality of the publication in accordance with Brazilian Copyright Law No. 12,853/2013.

## RESULTS

The database search retrieved 31 records from Medline, 187 from Scopus, 3 from Web of Science, 5 from LILACS, 6 from the Digital Library of Theses and Dissertations, 145 from Embase, and 1,950 from Google Scholar. The sample selection process is illustrated in Figure 1.

The final sample consisted of 21 studies, most of which were published in English (n = 11), with the highest number of publications in 2022 (n = 6). Regarding the country of origin, 11 studies were conducted in Brazil, followed by England (n = 2), and one each in Lebanon, the United States, Portugal, Denmark, Spain, South Korea, China, and Japan.



**Figure 1.** Flowchart of the sample selection process. Porto Alegre, RS, Brazil, 2024.  
Source: Prepared by the authors, 2024.

As for study design, the following were identified: four integrative reviews, two quasi-experimental studies, two cross-sectional studies, two scoping reviews, one multicenter retrospective study using database records, one systematic review with meta-analysis, one experience report with a scoping review component, one cohort study, one descriptive database study, one retrospective cross-sectional study, one literature review of recommendations, one descriptive cross-sectional study with a quantitative approach, one systematic review, one guidance manual, and one undergraduate thesis.

Table 2 presents the characterization of the included studies, listed in alphabetical order.

**Table 2.** Characteristics of the studies included in the scoping review. Porto Alegre, RS, Brazil, 2024.

ID	Authorship and year	Type of publication, journal, language, and location	Title	Study design
E1	Al-Hajj S et al 2022 <sup>27</sup>	Article: BMJ Open English, Beirut	Paediatric injury in Beirut: a multicentre retrospective chart review study	Multicenter retrospective study using database records
E2	Almeida LA et al. 2023 <sup>18</sup>	Revista Uruguaya de Enfermería English, Portuguese	Prevenção de acidentes domésticos na primeira infância: uma revisão integrativa	Integrative review
E3	Bhatta S et al. 2020 <sup>28</sup>	Article - Child: care, health and development English, Bristol	Environmental change interventions to prevent unintentional home injuries among children in low-and middle-income countries: A systematic review and meta-analysis	Systematic review and meta-analysis
E4	Bosak A. 2022 <sup>21</sup>	Doctoral dissertation English, Arizona	Caregiver Education on Reducing Unintentional Injuries in Infants 0-12 Months	Quasi-experimental study

ID	Authorship and year	Type of publication, journal, language, and location	Title	Study design
E5	Costa MT. 2021 <sup>19</sup>	Master's Internship Report (Portugal) Lisbon	A Intervenção do enfermeiro especialista na prevenção de acidentes na primeira infância	Experience report with a scoping review
E6	Costa VC, Felix LKCL. 2020 <sup>23</sup>	Revista de Saúde Digital e Tecnologias Educacionais Portuguese	Gamificação para prevenção de acidentes na infância: revisão sistemática	Systematic review
E7	Elbourne C et al. 2021 <sup>14</sup>	Article: BMJ Paediatrics Open English, England	At risk child: a contemporary analysis of injured children in London and the South East of England: a prospective, multicentre cohort study	Cohort study
E8	Faergemann C. 2021 <sup>16</sup>	Article: Danish Medical Journal English, Denmark	Characteristics of severely injured children admitted to a Danish trauma centre	Descriptive study using database records
E9	Faria MSM. 2022 <sup>17</sup>	School of Medicine, Federal University of Uberlândia Portuguese	Aspectos clínico-epidemiológicos de acidentes na primeira infância: estudo retrospectivo em um hospital de alta complexidade	Undergraduate thesis
E10	Gomes AF et al. 2023 <sup>25</sup>	Center for Advanced Research in Quality of Life Portuguese	Acidentes domésticos envolvendo crianças no Brasil: tipos, medidas preventivas e de redução de danos	Integrative review
E11	Gonçalves AC et al. 2019 <sup>13</sup>	Article: Revista do Colégio Brasileiro de Cirurgiões Portuguese, Brazil	Accidents in childhood: casuistry of a tertiary service in a medium-sized city in Brazil	Retrospective cross-sectional study
E12	Jullien S. 2021 <sup>20</sup>	Article: International Journal of Pediatrics English, Spain	Prevention of unintentional injuries in children under five years	Literature review of recommendations
E13	Kim MY et al. 2022 <sup>22</sup>	Article: Child Health Nursing Research English, South Korea	Analysis of research on interventions for the prevention of safety accidents involving infants: a scoping review	Scoping review
E14	Magalhães DF et al. 2021 <sup>15</sup>	Research, Society and Development Portuguese, Brazil	Acidentes na primeira infância: contribuições da Enfermagem na construção de orientações preventivas	Descriptive cross-sectional study with a quantitative approach
E15	Qian LF et al. 2023 <sup>29</sup>	Article: International Journal of Pediatrics English, China	Evaluation of the community involvement of nursing experts in reducing unintentional injuries in children	Quasi-experimental study
E16	Santos RR et al. 2022 <sup>9</sup>	Article: Revista Brasileira de Enfermagem Portuguese/English, Brazil	Prevention of domestic accidents in childhood: knowledge of caregivers at a health care facility	Cross-sectional study
E17	Sampei M et al. 2020 <sup>30</sup>	Article: Journal of Epidemiology English/Japanese, Japan	Municipality-Level Checklist to Promote Parental Behaviors Related to Prevention of Unintentional Injury in Young Children: A Multilevel Analysis of National Data	Cross-sectional study
E18	Sampaio HS et al. 2022 <sup>6</sup>	Book chapter Editora Científica Digital Portuguese, Brazil	Acidentes em crianças menores de 1 ano e ações preventivas: revisão integrativa	Integrative review
E19	Silva ANE et al. 2023 <sup>26</sup>	Article: Revista Brasileira de Enfermagem Portuguese/English, Brazil	Tecnologias educacionais para a prevenção de acidentes por quedas na infância: revisão de escopo	Scoping review
E20	Sociedade Brasileira de Pediatria 2020 <sup>24</sup>	Scientific Department of Safety Portuguese, Brazil	Os acidentes são evitáveis e na maioria das vezes, o perigo está dentro de casa	Guidance manual
E21	Vieira ECG, Souza GMPS. 2019 <sup>12</sup>	Undergraduate thesis (Bachelor's in Nursing) Portuguese, Brazil	Prevalência de acidentes domésticos infantis no Brasil	Integrative review

Caption: ID – Identification code; Source: research data, 2024.

Nine studies addressed unintentional injuries, and twelve focused on injuries and their prevention. The findings are summarized in Table 3. Falls and skin injuries were the most frequent incidents affecting children, often caused by a lack of supervision in hazardous environments. Falls generally occurred during moments of inattention, while injuries were frequently associated with rough surfaces or sharp objects. Identifying these incidents is essential for implementing effective preventive measures.

**Table 3.** Mapping of accidents and preventive measures. Porto Alegre, RS, Brazil, 2024.

ACCIDENTS	PUBLICATIONS
Falls	12,13,14,15,17,18
Burns	12,17,18
Drownings	12
Suffocation	12,17
Various skin injuries	12,13,14,15,16,17
Poisoning	18
PREVENTIVE MEASURES	PUBLICATIONS
General health education activities	6,21,23,26,29,30
Guidance provided during nursing consultations (prenatal and child health visits)	6
Guidance provided while still in rooming-in care	6
Guidance during mother support groups and teacher training	25
Educational interventions by healthcare professionals with families	6,23
Environmental and behavioral modifications	20
Assessing the effectiveness of both the intervention itself and the way it is communicated to parents	20,22
Use of printed materials such as booklets, pamphlets, video clips, computer programs, apps, games, forms, questionnaires, and media campaigns	21,26
Interventions tailored to different stages of child development	22
Recommendation to restrict access to hazardous areas	24
Creating a national surveillance system, developing education and awareness programs, and implementing appropriate safety regulations and legislation	27

Source: Research data, 2024

Prevention strategies included health education activities, guidance during nursing consultations, and training for teachers and mother support groups. In addition, educational interventions targeting families and environmental modifications were crucial. Evaluating the effectiveness of these interventions and using educational materials—such as booklets and videos—helps to raise awareness. Finally, the creation of a national surveillance system and the development of safety programs are key steps toward promoting safer environments for children.

## DISCUSSION

This scoping review mapped the main unintentional injuries affecting children up to 1 year of age and the recommended preventive measures. Accordingly, the discussion is organized into two categories: “Injuries and accidents” and “Accident prevention.” A single study may appear in both categories, as some studies addressed both topics.

## IDENTIFIED INJURIES AND ACCIDENTS

Nine studies addressed the main types of accidents involving young children, presenting diverse and heterogeneous information<sup>9,12-19</sup>. One study identified burns, drownings, aspirations, suffocations, and cuts as the primary accidents occurring in the infant home environment<sup>12</sup>. Falls were reported as frequent incidents, especially in the children's own homes or those of relatives. Among the most common injuries, cuts and lacerations stood out, with the lower limbs being the most frequently affected area—particularly in same-level falls or falls from the child's own height, which were the most common<sup>12</sup>.

Another study identified falls and local trauma as the most frequent types of accidents, with the head, face, and neck being the most affected regions, including traumatic brain injuries. Local trauma was more commonly associated with injuries to the upper and lower limbs<sup>13</sup>. In the same context, a different study reported that among children aged 0 to 5 years, most injuries occurred at home. Nearly 75% of these children experienced falls, and more than half of them sustained head injuries<sup>14</sup>.

One important finding from another study revealed that most accidents occurred in the evening, between 6:00 p.m. and midnight, with the highest frequency reported in the children's homes. Falls were identified as the most common incidents leading to emergency care, followed by direct trauma, traction injuries (e.g., pulling the child by the arm), and injuries caused by sharp or piercing objects<sup>15</sup>. However, in the following study, most injuries occurred in the home environment, during the daytime, in the summer, and on weekends<sup>16</sup>.

In another study<sup>17</sup>, various types of injuries were identified, including cuts, bruises, dog bites, cat scratches, accidents involving foreign bodies (such as aspiration, ingestion, and objects in the ears and eyes), exogenous poisoning (from caustic products, medications, and organophosphates), and burns (chemical, thermal, and electrical). Falls were also categorized according to the height and the type of object involved<sup>17</sup>.

The rising number of domestic accidents has become a significant concern across different communities. This situation is particularly alarming in low-income households, where living conditions and limited resources tend to exacerbate risks. A recent study highlights this scenario by identifying the most common types of accidents and their impact on families.

Another study<sup>18</sup> addressed specific accident types such as falls, burns, poisonings, and television tip-overs. Most of the families included in the analysis belonged to lower-income groups, lived in overcrowded households, and had young mothers<sup>18</sup>.

According to the next study, the main risk factors for accidents involving children include the mother's young age, low educational attainment of the mother and/or family, the presence of male children, precarious socioeconomic conditions, limited caregiver supervision, and the presence of multiple children in the household<sup>19</sup>. These findings underscore the importance of considering multiple variables. However, in the subsequent study, no significant association was found between caregivers' educational attainment and their knowledge of household accidents<sup>9</sup>.

## PREVENTION OF ACCIDENTS AND PREVENTIVE ACTIONS

Of the 21 studies included in this review, 12 addressed injuries and their prevention<sup>6,20-30</sup>. These studies highlight the importance of strategies to prevent unintentional injuries, emphasizing that combining environmental and behavioral modifications can reduce such incidents<sup>20</sup>. The studies showed that many caregivers were unaware of the impact of injuries on infants in terms of morbidity and mortality. Printed materials were used to enhance knowledge of prevention strategies, with a focus on

sleep-related injuries and falls. Increasing caregiver awareness underscores the need for targeted education in pediatric primary care settings<sup>21</sup>.

The studies analyzed emphasize preventive actions such as health education activities and reinforcing guidance during rooming-in and nursing consultations, including prenatal care and well-child visits. These initiatives aim to increase healthcare professionals' involvement in family-oriented interventions<sup>6</sup>.

While the preventive actions highlighted in the studies stress the relevance of healthcare professionals' involvement in family health education, raising family awareness about preventing household accidents is equally crucial. The following study<sup>22</sup> highlights the importance of implementing interventions tailored to the child's developmental stages, as children explore their environment in distinct ways. Encouraging parents' voluntary participation and tailoring interventions to their needs are key. The continuity of these actions strengthens parents' ability to ensure their children's safety. Additionally, effective teaching methods should include hands-on experiences to enhance the management of household safety<sup>22</sup>.

Another study revealed that home accidents are the most common type of childhood injury, particularly burns, with a higher incidence among boys. Furthermore, these accidents represent the leading cause of morbidity and mortality in childhood. These findings call for educational interventions. The study implemented health education activities in schools and in a pediatric ward, all using playful and engaging approaches<sup>23</sup>. The manual from the Brazilian Society of Pediatrics (SBP) outlines essential safety recommendations for each age group. In households with young children, it is recommended to install safety gates to block access to stairways. Regarding infants, the SBP warns that many accidents occur due to parental inattention, often linked to distractions like cell phones or television<sup>24</sup>.

An additional study presents preventive strategies, emphasizing that guidance in mothers' groups and teacher training are among the most common approaches<sup>25</sup>. The continuity of these interventions is crucial, as it enhances parents' capacity to prevent safety-related accidents involving their children. Effective teaching methods should include hands-on activities focused on household safety for infants and toddlers. Several technologies were identified for fall prevention, such as booklets, brochures, video clips, guidance materials, computer programs, mobile apps, games, forms, questionnaires, and media campaigns<sup>26</sup>.

As preventive measures, a joint effort is essential to improve child safety and well-being in low- and middle-income countries. This includes enhancing emergency care, establishing a national surveillance system, developing educational and awareness programs, and enforcing appropriate safety regulations and legislation<sup>27</sup>.

One study revealed that home inspection, safety education, and the use of safety devices reduced post-intervention scores related to poisoning risks and unsafe practices involving burns. However, no reduction was observed in the risks of falls or electrical burns<sup>28</sup>. In the same context, another study found that the incidence of injuries decreased following the implementation of community-based safety education programs<sup>29</sup>.

On the other hand, researchers presented a municipality-level intervention using a checklist that involved local authorities and families of young children during routine health check-ups. The study investigated whether this approach was associated with changes in parental behaviors related to child safety, particularly regarding choking, traffic accidents, and drowning. After the checklist was implemented, certain risky behaviors were reduced. However, its association with other behaviors—such as the use of car seats and the presence of bathroom door locks—was weaker than that of other municipal-level factors<sup>30</sup>.

In conclusion, the analysis of all 21 studies reveals that the primary unintentional injuries and accidents affecting children are well-defined, as are the strategies to prevent them. Therefore, it is the

responsibility of families—the primary caregivers—to be aware of these risks and take an active role in prevention, while healthcare professionals must work to strengthen educational interventions with this focus.

## IMPLICATIONS FOR PRACTICE

The presentation and discussion of the studies highlight significant implications for nursing practice, particularly in promoting health and preventing childhood injuries. Key considerations include:

- **Health education:** Nurses should take an active role in educating parents and caregivers about existing risks. Educational workshops, talks, and the distribution of informational materials can be useful strategies.
- **Playful strategies:** Nurses can create interactive activities that engage children and their families, making the learning process both enjoyable and accessible.
- **Targeted interventions:** Based on the most common injuries identified in the studies, nurses can develop tailored strategies for specific risk groups, such as children in certain age ranges or those living in socially vulnerable settings.
- **Interdisciplinary collaboration:** Nursing practice should involve collaboration with other healthcare professionals, educators, and social workers to develop a comprehensive approach to preventing childhood injuries.

These implications underscore the essential role of nurses in fostering child safety and advancing community education, ultimately contributing to a safer and healthier environment for children.

## FINAL CONSIDERATIONS

This study aimed to map the main unintentional injuries affecting children up to 1 year of age and the recommended preventive measures, as reported in the health sciences literature. The key findings highlighted the most frequent types of injuries, such as cuts, head trauma, direct trauma, pulling injuries (pulling the child by the arm), wounds caused by sharp or piercing objects, bruises, dog bites, and cat scratches. The main types of accidents were falls, burns, drownings, suffocations due to foreign bodies (such as aspiration, ingestion, or objects in the ears and eyes), and poisonings.

The focus on childhood injury prevention is supported by a range of studies emphasizing the urgent need for targeted interventions to protect children. Health education emerges as a central pillar, and the implementation of educational programs in schools and healthcare settings is crucial for raising parents' awareness of the risks associated with domestic accidents. Playful methods have proven effective in engaging families and facilitating the learning process.

Finally, investing in child safety is a shared responsibility that can transform lives, prevent harm, and ensure healthy and protected development. Continued research and evaluation of prevention strategies are essential to better understand their effectiveness and tailor approaches to the specific needs of each community.

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