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Nursing care for prevention of shaken baby syndrome: integrative literature review

Cuidados de enfermagem para prevenção da síndrome do bebê sacudido: revisão integrativa da literatura

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ABSTRACT

This work aims to identify in the literature the current scientific evidence about nursing care for the prevention of shaken baby syndrome (SBS), using as a guiding question: "What are the nursing care for the prevention of shaken baby syndrome?", conducting an integrative literature review, following six steps. In the first stage, the guiding question was elaborated. In the second stage, there was a literature search on the proposed theme. In the third stage, data collection of the selected articles took place. In the fourth stage, the critical analysis of the studies included in the review took place. In the fifth stage, the results were discussed. In the sixth stage, the integrative review was presented in a descriptive way. The study revealed that shaken baby syndrome is not so well known by the general population and more research should be carried out to consolidate knowledge about etiology and other ways of prevention.

Keywords: Shaken baby syndrome. Integrative review. Nursing care.





RESUMO

Este trabalho tem por objetivo identificar na literatura as evidências científicas atuais acerca dos cuidados de enfermagem para a prevenção da síndrome do bebê sacudido (SBS), usando como questão norteadora: “Quais os cuidados de enfermagem para a prevenção da síndrome do bebê sacudido?”, realizando uma revisão integrativa da literatura, seguindo-se seis etapas. Na primeira etapa, ocorreu a elaboração da questão norteadora. Na segunda etapa, ocorreu a busca na literatura sobre o tema proposto. Na terceira etapa, ocorreu a coleta de dados dos artigos selecionados. Na quarta etapa, ocorreu a análise crítica dos estudos incluídos na revisão. Na quinta etapa, ocorreu a discussão dos resultados.

Palavras-chave: Síndrome do bebê sacudido. Revisão integrativa. Cuidados de enfermagem.

Introduction

Shaken Baby Syndrome (SBS) is a skull injury caused by violent shaking; this sudden movement can cause inflammation, bruising, and bleeding that can lead to the death of the child. It is more common in situations where the baby's caregivers are frustrated and/or stressed and shake the baby as a form of punishment, such as to make the baby stop crying (Dias, 2022).

The children most affected by this syndrome are mostly younger than one year and in 2/3 of the cases they are younger than 6 months, but it is present up to 5 years of age (Dias, 2022). Most of the time the baby with SBS may not show clear signs of the head trauma suffered, as the symptoms are influenced by the severity of the injury, therefore in less severe cases irritability, drowsiness, constant crying may be noticed, while in more severe cases convulsions, coma or even cardiorespiratory arrest may occur. In addition, SBS can cause irreversible consequences and damage, such as partial or severe loss of vision, and in the most extreme case can be fatal (Fortes Filho, 2014).

A retrospective study analyzed 3400 forensic autopsy cases between 2012 and 2018, with the goal of raising awareness of shaken baby syndrome (SBS) among healthcare professionals. Of the 113 cases, the children were <2 years old and had head trauma. Of these cases, 8 were diagnosed with SBS, which was fatal in 75% of cases, and parents were found to be responsible for 50% of the trauma. Seizure history was observed in 67.5% of infants and findings included subdural hematoma, hemorrhage, and spinal cord hemorrhage. The worldwide incidence of SBS remains unknown. The study highlights the importance of awareness and early detection of this condition to prevent serious harm and save lives (Oruç, 2021).



Therefore, it is necessary to understand why this syndrome occurs so that nursing can effectively intervene to prevent it. It is also necessary for the care team to be aware of precautions to prevent shaken baby syndrome.

1 Objective

The present study aims to identify current scientific evidence in the literature regarding nursing care for the prevention of shaken baby syndrome, using as a guiding question: "What are the nursing care measures for the prevention of shaken baby syndrome?", with the aim of contributing to the scientific universe with more information on this topic.

2 Methodology

This is an integrative literature review. Six steps were followed to construct the review. In the first step, the guiding question was developed. In the second step, the literature search on the proposed topic took place. The third step involved data collection from the selected articles. In the fourth stage, a critical analysis of the studies included in the review took place. In the fifth step, the results were discussed. In the sixth step, the integrative review was presented in a descriptive way, as this allows for the observation, description and combination of all the knowledge on the topic explored in this review.

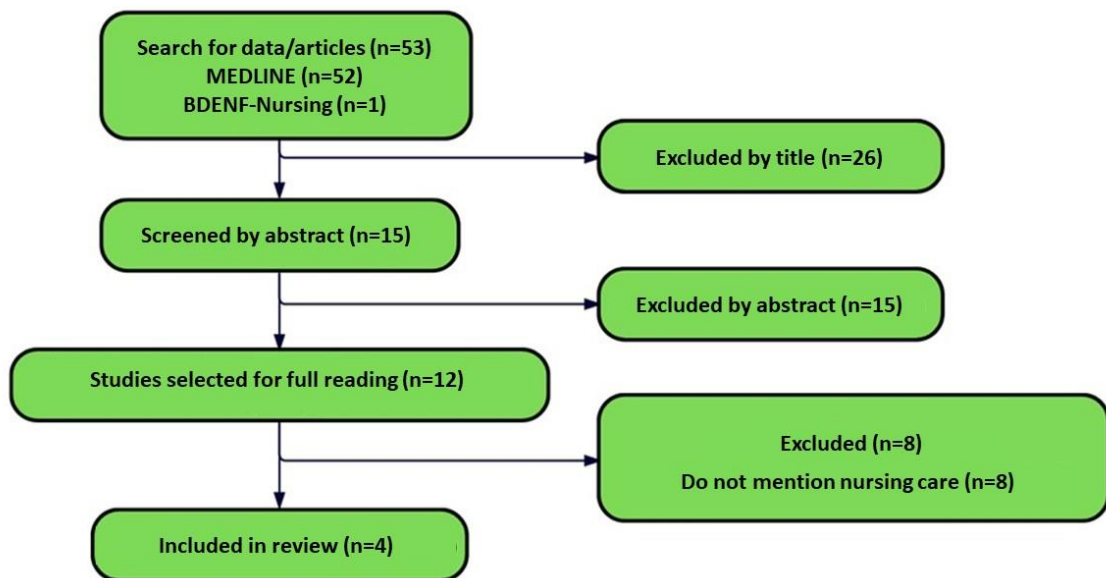
Studies with a time limit of 10 years (2013 to 2023) were searched. The searches were performed in June 2023 in the Medical Literature Analysis and Retrieval System Online (MEDLINE) and Nursing Database (BDENF-Enfermagem) databases. The descriptors "nursing", "shaken baby syndrome", found in the Health Sciences Descriptors (DeCS), and "prevention and control", "shaken baby syndrome", "pediatric abusive head trauma", found in the Medical Subject Headings (MeSH), between single crossings AND and OR, 1# OR 2#, viz: 1# ("enfermagem" AND "shaken baby syndrome") OR 2# ("prevention and control" AND "shaken baby syndrome" OR "pediatric abusive head trauma").

The inclusion criteria for the articles were: complete articles that answered the proposed guiding question, with the population of parents, caregivers and nurses, available in the databases, in any language, with a time limit of 10 years.

3 Results and discussion

The search yielded 159 studies, which after applying inclusion filters left 53 studies, 52 in the Medline database and 1 in the BDNF-Enfermagem database. The titles of these articles were read and 26 were excluded because 4 were duplicates and 22 did not answer the guiding question, leaving 27 studies. After reading the titles, the abstracts were read and 15 were excluded because they did not answer the guiding question. For the remaining articles, the full text was read and 8 were excluded because they did not address caregiving.

Figure 1. Prisma flowchart showing the results of the bibliographic search.



Source: Prepared by the authors, 2023.



Results from 4 studies were used to construct this review and are summarized in the table below with year, authors, level of evidence, and level of care.

Table 1 - Presentation of results from the studies.

YEAR	AUTHORS	LEVEL OF EVIDENCE	NURSING CARE
2014	ALLEN, K.A.	LEVEL 2	<ul style="list-style-type: none">• Propose cards for caregivers with information about SBS.• Create an action plan for parents on how to deal with continuous crying.• Use leaflets explaining abusive head trauma and how to avoid it.• Use informative videos for parents.• Make posters available in all wards with relevant information for family and visitors.• Provide child safety information to parents.• Create a media campaign to normalize infant crying as part of normal development.
2019	EISMANN, A. <i>et al.</i>	LEVEL 1	<ul style="list-style-type: none">• Create a book with safe practices to calm children
2020	MCINERN, E. Y. <i>et al.</i>	LEVEL 3	<ul style="list-style-type: none">• Propose online training videos for healthcare staff• Promote videos about SBS to caregivers• Use booklets in person for health education with caregivers
2021	DIAS, <i>et al.</i>	LEVEL 1	<ul style="list-style-type: none">• Educate parents, including male figures, during the immediate postnatal period about the normality of infant crying, techniques for reducing anger and encouraging the baby to self-soothe, and the dangers of SBS• Creating a serial texting program on SBS

Source: Prepared by the authors, 2023.



The presence of crying is something that must be understood as part of a child's development, especially in the first months of life, when they are not yet able to express their complaints in words. Therefore, parents resort to the practice of shaking the baby to keep it quiet. However, using this method is dangerous and can lead to SBS. Nurses have a crucial role of helping parents and caregivers through this stressful time and in preventing SBS.

The care that nursing can provide to prevent SBS can be divided into three main methods: 1) creation of visual media (flyers, posters, books); 2) creation of educational videos; 3) health education and training with parents and caregivers and the health care team (nurses, nursing technicians, physicians, physiotherapists, occupational therapists, etc.).

The authors McInerney *et al* (2020), Allen, KA (2014), Eismanna *et al* (2019) and Dias *et al* (2021), follow the same line of thought regarding the care that nursing provides in these situations.

For the authors McInerney *et al* (2020), the prevention of SBS is effective when using collaborative methods between professionals and caregivers. The authors recognize that it will only be possible for the professional team to pass on information about the correct ways to prevent SBS if they are properly trained. The conclusion they draw is that all health professionals working in the pediatric and/or neonatal area must receive visual training on the subject and how to disseminate this information to caregivers in a clear and objective manner. After the training, trained nurses would provide information to caregivers through 10-minute videos on SBS and health education through booklets. The professionals would also provide a DVD/application and a package of booklets for caregivers to take home.

For author Allen, KA (2014), nurses have a fundamental role in disseminating the necessary information that parents and caregivers should receive about SBS. The interventions that nurses can provide are among the most diverse and creative, including the creation of visual aid methods and media creation. Parents need to be guided through strategies that aim to learn in a clear and illustrative way and that invite them to participate, so the creation of cards, leaflets, posters and videos are tools used to ensure that learning is complete and easy. The creation of an action plan for parents, together with nurses and caregivers, on how to deal with the presence of their child crying becomes a method that seeks effective learning and brings caregivers closer to independence.



Nurses also play a role that must be seen by the entire community, as shown by Allen (2014), in his study on the need to create a media campaign that normalizes infant crying, presenting it as part of normal development. that the child will have throughout their journey. By presenting such a strategy, the nurse can promote health education effectively and with access to many people.

The authors, Eismanna *et al.* (2019), present in their article the effectiveness of an educational book created for parents with safe practices to control children's crying. The book was given to parents at their baby's first month's well-child visit. It contains safe parenting practices that should be used. This information is conveyed through gentle rhymes, simple language, and sensitive illustrations from the baby's perspective at a first grade reading level. The implementation of this book by nurses brings security to the caregiver who will read it and a good reception, because it is from it that the bond is created in the consultation.

Dias *et al* (2021) in their research list the need for fathers, male figures, to be involved in health education on SBS, as data is presented showing that fathers represent the largest proportion of perpetrators of SBS and can also be effective advocates in sharing this information with other caregivers. Multimedia materials such as written handouts, unit posters, and videos were promoted to these parents. Similarly, a serial text messaging program was created to reinforce the information already provided and delivered via smartphone to parents during the first weeks postpartum.

In this way, the use of media methods (physical or video) and health education become necessary and proven formats for the prevention of SBS, enabling parents, caregivers and health workers to deal with the issue effectively and efficiently.

Final considerations

According to the study, Shaken Baby Syndrome is not well known among the general population, which makes it even more worrisome because without adequate knowledge, parents and caregivers expose the child to this syndrome.

The role of the nursing team in the SBS is to carry out interventions to prevent cases. These maneuvers can be carried out through some tools, such as the creation of visual media (such as folders, posters or other tools in this area), production of educational videos, health education activities and training with parents and caregivers of children.



However, more research is needed to consolidate knowledge about the etiology and other ways to prevent and educate about Shaken Baby Syndrome.

REFERENCES

ALLEN, K. A. The Neonatal Nurse's Role in Preventing Abusive Head Trauma. **Adv Neonatal Care**, [S.l.], v. 14, n. 5, p. 336-342, 2014. Available from: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4139928/>.

DIAS, M. S. *et al.* Preventing abusive head trauma: can educating parents reduce the incidence? **Pediatric Radiology**, [S. l.], v. 51, n. 1, p. 1093–1096, 2021. Available from: <https://link.springer.com/article/10.1007/s00247-020-04819-6>.

EISMANNA, E. A. *et al.* Feasibility study of the calm baby gently program: An educational baby book intervention on safe practices related to infant crying. **Child Abuse & Neglect**, [S. l.], v. 89, n. 1, p. 135-142, 2019. Available from: <https://www.sciencedirect.com/science/article/abs/pii/S0145213418304563?via%3Dihub>.

FILHO, J. B. F. **Síndrome do bebê sacudido.** Available from: [http://www.joaoborgesfortesfilho.com.br/doencas_detalle.php?id=2#:~:text=A%20SBS%20c ostuma%20ser%20identificada,ou%20pelos%20ombros%20\(5\)](http://www.joaoborgesfortesfilho.com.br/doencas_detalle.php?id=2#:~:text=A%20SBS%20c ostuma%20ser%20identificada,ou%20pelos%20ombros%20(5)).

LAURENT-VANNIER, A. Shaken Baby Syndrome (SBS) or Pediatric Abusive Head Trauma from Shaking: Guidelines for Interventions During the Perinatal Period from the French National College of Midwives. **Journal of Midwifery & Women's Health**, [S. l.], v. 67, n. S1, 2022. Available from: <https://onlinelibrary.wiley.com/doi/10.1111/jmwh.13427>.

MCINERNEY, S. *et al.* Implementation of an Abusive Head Trauma Prevention Program Through Interdisciplinary Collaboration: A Pilot Study. **Journal of Trauma Nursing**, Philadelphia, v. 27, n. 5, p. 276-282, 2020. Available from: https://journals.lww.com/journaloftraumanursing/Abstract/2020/09000/Implementation_of_an_Abusive_Head_Trauma.6.aspx.

ORUÇ, M. *et al.* Shaken baby syndrome resulting in death: a case series. **The Turkish Journal of Pediatrics**, v. 63, n. 1, p. 31, 2021. Available from: <https://www.turkishjournalpediatrics.org/abstract.php?id=2255>.



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