

# **CHILDHOOD OBESITY ASSOCIATED WITH LIFESTYLE AND THE ROLE OF NURSING IN PREVENTION**

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## ***Childhood Obesity Associated with Lifestyle and the Role of Nursing in Prevention***

### ***Obesidade infantil associada ao estilo de vida e o papel da enfermagem na prevenção***

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#### **Abstract**

**Introduction** - Obesity in children has seen a significant increase in recent decades and is seen as a major public health problem, associated with several different pathologies. **Objective** - To discuss childhood obesity, highlighting its relationship with children's eating habits and lifestyle, as well as the role of nurses in prevention. **Methodology** - A bibliographical review was carried out, based on an analysis of articles. The research was carried out using electronic databases: Virtual Health Library (VHL) and National Library of Medicine (PUBMED). **Results** - In the VHL database, only one article met the proposed inclusion criteria; in the PUBMED platform search, two articles remained. **Discussion** - Factors such as family environment and social deprivation are related to childhood obesity. Obesity can cause various health problems for children, and it is clear that measures are needed to halt its progression. **Final considerations** - Studies on childhood obesity and the role of nursing in preventing it are still very scarce. Public health, including nursing professionals, must intervene and pay attention to this disease.

**Keywords:** *Pediatric obesity; eating behavior; nursing.*

#### **Resumo**

**Introdução**- A obesidade em crianças, obteve taxas de aumento significativo nas últimas décadas, sendo vista como um grande problema de saúde pública, associado a diversas patologias distintas. **Objetivo** - Discursar sobre a obesidade infantil, destacando a sua relação com os hábitos alimentares e o estilo de vida da criança, bem como a atuação do enfermeiro quanto a prevenção. **Metodologia** - Foi elaborada uma revisão bibliográfica, a partir da análise de artigos. A pesquisa foi realizada a partir das bases de dados eletrônicas: Biblioteca Virtual em Saúde (BVS) e National Library of Medicine (PUBMED). **Resultados** - Na base de dados BVS apenas um artigo atendeu aos critérios de inclusão propostos; na pesquisa da plataforma PUBMED, permaneceram dois artigos. **Discussão** – Fatores como o ambiente familiar e a privação social estão relacionados a obesidade infantil. A obesidade pode trazer diversos prejuízos para a saúde da criança, ficando evidente que medidas são necessárias a fim de interromper a sua progressão. **Considerações finais** - Os estudos referentes a obesidade infantil associada ao papel da enfermagem na prevenção ainda são bem escassos. A saúde pública, incluindo profissionais de enfermagem, devem intervir e se atentar a essa doença.

**Palavras-chaves:** *Obesidade pediátrica; comportamento alimentar; enfermagem.*

## **INTRODUCTION**

Obesity is a public health problem in all countries, seen as a disease associated with several different pathologies, such as hypertension, type 2 diabetes mellitus, dyslipidemia and cancer, in addition, its etiology can involve everything from psychological and lifestyle aspects, to metabolic and genetic factors (VIEIRA *et al.*, 2020). In Brazil, as with global statistics, obesity is also considered a public health problem, with 41 million people living with it (PESQUISA NACIONAL DE SAÚDE PÚBLICA, 2019).

The significant increase in cases of obesity has been affecting adults and children and consequently numerous health problems have been generated (MASTELLOS *et al.*, 2014).

Obesity among children (0 to 9 years old) has seen a significant increase in recent years, with a 13.4% increase in global prevalence. Between 1975 and 2016, there was an increase from 11 to 124 million cases of obese boys and girls worldwide (ABARCA *et al.*, 2017).

According to Faria *et al.* (2021) the emergence of childhood obesity is directly linked to poor diet associated with a sedentary lifestyle and economic and social factors, and can become a trigger for the development of other diseases.

In order to prevent childhood obesity, it is essential for an interdisciplinary team to work together, providing guidance, assessment and health education, and nurses, as part of this team, play an essential role in monitoring the child's growth and development by measuring anthropometric measurements, making it possible to identify early changes indicative of obesity (SANTOS; AGUIAR, 2020).

In this sense, it stands out that the nursing professional must have mastery of this theme to act in the prevention of childhood obesity, this includes accompanying family members and children during a routine of adaptation to a new healthy lifestyle, emphasizing the importance of regular physical activity, likewise, it is necessary for the professional to understand the context in which these families are inserted, in order to adapt their care based on objectives that are possible to achieve (MELO *et al.*, 2019).

In this context, given the increase in the number of children with obesity observed in recent decades and the consequent rise in the emergence of chronic non-communicable diseases in childhood, the need for an effective study to change habits has been identified. In addition, it has been observed that this is a major challenge for health professionals, including nurses,

since this disease requires increasingly early assistance and the direct participation of both the interdisciplinary team and the family, so the treatment and prevention can take place. The aim of this study is to discuss childhood obesity, highlighting its relationship with family lifestyle and the role of nurses in prevention.

## **METHODS**

This is an integrative review of the literature, which is prepared through the construction of well-founded knowledge on a given subject. To this end, six stages must be understood: preparation of guiding questions; literature search; categorization of studies; evaluation of studies; interpretation of results and synthesis of knowledge (SOUZA; SILVA; CARVALHO, 2010).

The guiding questions for the study were : What is the relationship between childhood obesity and lifestyle? And how can nurses act to prevent it? Data was collected from the Virtual Health Library (VHL) and National Library of Medicine (PUBMED) electronic databases, using the keywords: "pediatric obesity", "eating behavior" and "nursing".

The keywords were selected from the Health Sciences Descriptors (DeCS), and the articles were searched using a combination of the Boolean terms AND and OR and the term NOT in order to exclude articles that were not related to the research objective.

The inclusion criteria were articles published between 2012 and 2022, in English and Portuguese, in the established databases, original (in full), free of charge, with an experimental design (randomized clinical trials or not), or observational (case-control studies, cohort studies and comparative studies - before and after), which addressed childhood obesity, family and child lifestyle and eating habits, as well as the role of nursing in preventing childhood obesity.

Publications prior to 2012, paid-for publications, duplicate publications, literature reviews and articles that did not address the proposed subject were excluded.

In order to select the articles, we first identified the existing publications in the databases using the descriptors and Boolean terms proposed above, analyzing the titles and year of publication. After this, the articles were selected by reading the abstracts, where all those that met the inclusion criteria were identified. In this sense, 323 articles were found in the VHL, of

which 52 were selected and only 01 met all the inclusion criteria, while 347 articles were found in PUBMED, 138 were selected and 02 met all the inclusion criteria, as shown in Table 01.

After selection, the articles that met the criteria were analyzed and read in full, categorized and interpreted to delimit the results found, associating them with childhood obesity, lifestyle and the role of nursing in this context.

**Table 1** - Article selection process in the VHL and PUBMED databases:

Database	Publications found	Selected publications	Publications that met the inclusion criteria
<b>BVS</b>	323	52	01
<b>PUBMED</b>	347	138	02

**Source:** Prepared by the authors.

## RESULTS

After selecting the three articles that met all the inclusion criteria, a table was drawn up containing the following data: title of the study and year of publication, author, objective, methodology and main results, in order to complement the analysis of the selected studies (Chart 2).

**Table 2:** Description of the selected articles .

Title/year of publication	Author	Objective	Methodology	Main results
1. Actions by nurses and teachers to prevent and combat childhood obesity / 2014	Santos, Fabiane dias da Rosa dos <i>et al.</i>	How nurses and teachers contribute to preventing and combating childhood obesity	A qualitative study conducted through interviews with three primary school nurses and eight primary school teachers in a municipality in southern Brazil.	Joint and systematic actions between health and education professionals, involving families and the community, help to tackle childhood obesity,

				promoting quality of life for the population.
2. What are the barriers to healthy eating at home and at school? Perspectives of overweight/obese children and their parents / 2019	Kim, Hee Soon <i>et al.</i>	Identify the barriers in home and school environments that hinder healthy eating.	A standard manual with open-ended questions was developed. Content analysis was used to identify the main findings.	Changing the behavior of children, parents and teachers is essential to promote a healthy eating environment for children.
3. Food environment, social deprivation and obesity in Brazilian public school students / 2019	Assis Maíra Macário de <i>et al.</i>	To assess whether the food environment and social deprivation are associated with the prevalence of obesity among Brazilian public school students.	A cross-sectional study was carried out to classify obesity by measuring weight and height. The associations between the food environment and the presence of obesity were estimated using an equation model.	The findings reinforce the need for public policies that promote equity in the distribution of healthy food and the need for research into the influence of establishments on nutritional status.

Source: Prepared by the authors.

An analysis of the research shows that article 01 deals exceptionally with the role and work of nursing in preventing childhood obesity, while articles 02 and 03 cover the school

environment and its relationship with diet and obesity. It is worth noting that, in both articles, teachers are mentioned, highlighting the importance of working on healthy lifestyles in schools.

## **DISCUSSION**

Obesity or excessive weight gain, as they say, is present from the age of five, predominantly in children living in urban areas. Because it is a disease that triggers other serious changes in the body, obesity is a worrying factor in childhood, since it is related to progression into adulthood, as well as impairment of the child's growth and development (HENRIQUES et al., 2018).

According to Aragón et al. (2021) it is clear that, when dealing with obesity, measures are needed in order to stop its progression, since this disease can trigger many other health problems, such as hypertension, diabetes, dyslipidemia and heart problems, in addition, excessive weight gain decreases a person's life expectancy and can increase the rates of development of anxiety and depression.

The nurse, as an integral part of the multi-professional team, is the professional who masters the art of care, who aims to offer their patient attention, quality care, comfort and safety, in this perspective, acts in the promotion of children's health, as responsible for monitoring and identifying the risks for the development of obesity, and should intervene in these cases, aiming to control this disease (MIRANDA et al., 2020).

From childcare appointments, nurses talk to parents about healthy lifestyles and, at this point, they should invest in the educational process, counseling the family when obesity or overweight is identified (SANTOS et al., 2014).

Still from the perspective of Santos et al. (2014), given the consequences of childhood obesity on family life, the importance of preventive actions is emphasized, so nurses can diagnose obesity early and intervene with health promotion actions. Nurses in childcare are able to identify alterations that may influence the child's health, as they have the autonomy to discuss family habits and lifestyle and, during the consultation, they measure weight and check whether or not weight gain is adequate, allowing them to identify those children at risk of obesity.

The nursing team plays an essential role in the prevention of this disease, acting not only in patient orientation, but also in anthropometric assessments and health promotion actions that encourage weight loss and physical activity, in addition to clinical judgment and a focus on lifestyle changes (BRAGA et al., 2018).

Nascimento et al. (2016) emphasize that the nursing team must be present in the family context so that the scenario of increasing cases of obesity regresses, for this, the nurse must monitor the child's development and include in the nursing consultation the evaluation of anthropometric measurements and the calculation of BMI, in addition, nursing must implement campaigns and other preventive actions of obesity for the population, through the clinical look, in front of guidelines on the consumption of healthy foods and practice of regular physical activity.

In terms of lifestyle, the food environment, which focuses on the availability of and access to food, can also be a factor influencing childhood obesity, given that the shops and supermarkets closest to families tend to influence the supply and consumption of immediate foods, which generally have low nutritional quality (ASSIS et al., 2019).

Excessive consumption of foods high in fat and sugar is evident in many places, including the home and school environment, where children begin to replace healthy foods such as vegetables and cereals with high-calorie foods such as snacks, soft drinks, sweets and other treats (PEDRAZA et al., 2017).

The relationship between obesity and the family environment may also be linked to social deprivation, where, due to a lack of material and social resources, many families living in deprived neighborhoods and with a higher rate of vulnerability, with a lack of access, tend to consume predominantly unhealthy foods, consequently, this increases the chance of developing childhood obesity (ASSIS et al., 2019).

Parents play an important role in their children's lifestyles and are responsible for encouraging eating habits, however, many parents highlight the difficulty of providing their children with a healthy diet, as some factors, such as ineffective nutritional health education and the unhealthy food environment around schools, make it impossible to implement healthy eating (KIM et al., 2019).



According to Verga et al. (2022), the family has a great influence on the child's food choices, capable of developing strategies to change habits, such as regular mealtimes, replacing sweets, cookies and sugars with healthier foods and reducing the consumption of certain high-fat foods, as well as encouraging the child to adopt this healthy behavior, the family is able to directly observe the child and participate in the changes towards a healthy lifestyle.

The parents' diet is also an influencing factor in the child's lifestyle and, when done inappropriately, can have a negative effect on child's health, since the food consumed at home by the parents will most often also be the food consumed by the child (KIM et al., 2019).

The same authors, Kim et al, point out that schools are ideal environments for addressing healthy lifestyles, as children live in this environment on a daily basis and eat many meals at school, and it is up to parents, teachers and health professionals to discuss this issue frequently and monitor dietary development.

Nursing professionals should encourage parents, as well as working together with other health and education professionals, to support children in changing their lifestyles, especially children with obesity, implementing frequent physical activity, respecting their limits and difficulties in adapting (BAGGIO et al., 2021).

The subject of childhood obesity and lifestyle, although well studied in the literature, has limited findings when associated with the role of nursing in prevention. Few publications have been found and new studies are needed to encourage actions to prevent and combat childhood obesity.

## **FINAL CONSIDERATIONS**

Excess weight in children is recognized as a major public health problem in the world, since childhood obesity is one of the biggest epidemics in the area and is increasingly affecting more and more children. Obesity can cause various problems in the lives of children and their families, ranging from psychological problems such as changes in self-esteem to serious diseases such as endocrine and cardiovascular diseases.

The problems generated by obesity should be debated with the child's well-being and healthy growth in mind, reducing the risks of diseases that will harm them in the future.

Furthermore, attention is drawn to the work of nursing professionals and the role of public health in combating this disease.

However, as observed, studies on childhood obesity associated with the role of nursing in prevention are still very scarce, and it is clear that it is important to implement educational programs and scientific research that will serve as a strategy to minimize the incidence of childhood obesity in the world.

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