ASTHMA ATTACKS: REFLECTIONS ABOUT THE DETERMINANTS AND CONDITIONING FACTORS

LOS ATAQUES DE ASMA: REFLEXIONES SOBRE LOS FACTORES DETERMINANTES Y CONDICIONANTES

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ABSTRACT

Objective: to reflect about the predisposing factors and determinants of asthma related to the home environment. Method: a reflective study from literature review, allowing the realization of reflective approach expanded and contextualized. There were consulted articles, laws and books, searched on the databases LILACS and MEDLINE, and on the virtual library Scielo. Results: some of predisposing and conditioning factors related to the home environment those can provide asthma attacks are the modernization of the home environment, mites and house dust, humidity, strong odors, plants, animals, cigarette smoke, environmental factors, beyond socioeconomic conditions. Conclusion: The health professional should consider critical as basic the awareness, education and promotion of family health, in order to reduce the factors those predispose to asthma attacks in home environment, achieving thereby more accurate and effective results in controlling asthma. Descriptors: Asthma; Environmental Exposure; Nursing.

RESUMO

Objetivo: refletir acerca dos fatores predisponentes e condicionantes da asma relacionados ao ambiente domiciliar. Método: estudo reflexivo, a partir de revisão da literatura, permitindo a realização de abordagem reflexiva ampliada e contextualizada. Foram consultados artigos, legislações e livros, pesquisados nas bases de dados LILACS e MEDLINE e na biblioteca virtual Scielo. Resultados: alguns dos fatores predisponentes e condicionantes relativos ao ambiente domiciliar que podem proporcionar as crises asmáticas são a modernização do ambiente domiciliar, ácaros e poeira doméstica, umidade, odores fortes, plantas, animais, fumaça de cigarro, fatores climáticos, além das condições socioeconômicas. Conclusão: o profissional da saúde deve considerar fundamental a conscientização, educação e promoção da saúde familiar, no intuito de reduzir os fatores que predisponem à crises asmáticas no ambiente domiciliar, alcançando, com isso, resultados mais precisos e efetivos no controle da asma. Descriptors: Asma; Exposição Ambiental; Enfermagem.

REFERENCES

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English/Portuguese

J Nurs UFPE on line., Recife, 8(3):750-6, Mar., 2014

750
INTRODUCTION

Children show up as a vulnerable group to acquisition of numerous diseases, due to the immaturity of their immunological system. Among the most prevalent diseases, it is highlighted those that affect the respiratory system, the most common being pneumonia and asthma.¹

Asthma is a chronic disease of the airways characterized by episodes of reversible bronchial obstruction, being triggered by allergic (extrinsic asthma) or non-allergic (intrinsic asthma). It is usually accompanied by bronchial hyperresponsiveness and exaggerated response to physical, chemical or pharmacological stimuli, manifested by audible wheezing during expiration and a great quantity of mucus.²

Some factors relevant to characterize the current profile of asthma are changes in lifestyle determined by housing, urbanization, control of some infectious diseases, decrease the number of children and greater coverage of vaccinations.³ Thus, it is currently considered one of the most common chronic diseases in childhood, with high incidence and severity in various parts of the world. Moreover, it has a high rate of morbidity and a major economic impact by high costs with recurring hospitalizations.⁴

Despite advances in understanding the pathophysiology of the disease, the mortality rate is increasing. There are several explanations for this increase, such as environmental pollution, underestimation of disease severity by patients and cardiac complications arising from increased use of therapy with inhaled β-agonists.⁵

Studies show that most children with asthma develop symptoms before the fifth year of life, and concern in this age group, because the disease is difficult to diagnose. Some questions should be formulated to patients (or parents) to establish the clinical diagnosis of asthma: Have or had recurrent episodes of shortness of breath? Have or had recurrent seizures or episodes of wheezing? Have persistent cough, particularly at night or on waking? Have a cough or chest tightness after physical activity or exposure to allergens like mold and house dust, or animals? No relief of symptoms after the medication? Have a cough or chest tightness on waking? Have a cough or chest tightness particularly at night or on exercising? Have persistent cough, particularly at night or on waking? Have an episode of shortness of breath? Have or had recurrent seizures or episodes of wheezing? Have persistent cough, particularly at night or on waking? Have a cough or chest tightness after physical activity or exposure to allergens like mold and house dust, or animals? No relief of symptoms after the medication? Have a family history of allergic diseases or asthma? ⁶

In addition to these questions, it is important to note that the child may present with fatigue, irritability, limitations to exercise, adverse effects of medications, impaired school performance and attendance, as well as individual and family suffering. Thus, there may be difficulty in social adjustment for patients, capable of generating lasting or even permanent consequences, making asthma a serious public health problem with high annual cost.⁷

Asthma treatment aims to give a “normal life” to the patient, reducing the maximum exacerbations of the disease and its symptoms, allowing the child to participate in social activities, sports and school normally. Therefore, it is necessary to control not only the inflammatory phenomena, but also all the environmental context with rational and objective measures of environmental hygiene.⁸

The home environment and lifestyles have great impact on the health care of asthmatic children, and unfavorable situations can contribute to child mortality and morbidity. Above all, we still find some families who neglect the exposure of these children susceptible to allergic reactions to environments with dust, mites and by the animals. ⁹ Hence, handling the home environment aims to create an environment free of allergens, which makes up the cause Elementary asthma in children, representing a key tactic treatment can be preserved without side effects and can result in relief of symptoms while minimizing the use of pharmacological treatment. All patients with asthma and their families should receive guidance about the disease, allowing to proper use of medication therapy, environmental control measures, especially at home, and demand for health services.¹⁰

It is noteworthy that children should be the target of constant attention of the health system, knowing, however, that they depend largely on your life care provided by others, parents or guardians. Therefore, one must intervene especially among those intended to achieve significant results in promoting child health.¹¹

Given these considerations, it becomes urgent reflection on the predisposing factors and conditions related to the home environment conducive to an asthma attack, since discussing this theme will enable significant knowledge of the reality experienced by these clients and will allow better planning of health care in order prevention and health promotion in the household, as well as optimization of results.

MÉTHOD

This study consists of a reflective approach on the determinants and constraints of asthma attacks related to the home environment. In
The physical environmental hygiene is essential in the treatment of asthma. Therefore, one should avoid household dust, pets, humidity in the house, strong odors and plants. In addition, other measures ideal for cleaning and organizing for asthma control should be used when possible, according to the needs and possibilities of family and/or individual. They are: clean the house when the allergic individual is not present, do not use mop or broom, but damp cloth and vacuum cleaner, avoid the use of mattresses, pillows, carpets, chairs, bedspreads and cushions of tissue and as stuffed animals, encasing pillows and mattresses with thin plastic or vinyl, exposing them to the sun frequently, wash the bedding with temperature higher than 60°C.

The exposure to environmental allergens such as mites, cockroaches, as well as dog and cat epithelium is important risk factors for severe asthma in sensitized patients. A cockroach allergy has been increasingly linked as a contributor to asthma, suggesting that it is a marker of severity of disease, especially in patients of lower socioeconomic status and urban residents. It was also observed that the current or prior exposure to pets is a risk factor for more severe cases.

It is known that many measures recommended for the control of asthma are not easy to perform in accordance with the characteristics of each family. In these cases, there are simple and effective tactics that assist in the prevention of asthma attacks, such as: domestic animals should be bathed at least once a week and should not, in any way, staying in the dormitory; prevent the accumulation of dirt, old papers and food scraps to keep the house free of insects, especially cockroaches.

Thus, we see the importance of keeping the environment always clean and sanitized, especially when it comes to the home in which an asthmatic child lives. The control environment is a non-pharmacological measure necessary to reduce the exposure of individuals with asthma to irritants. Thus, through the use of simple measures and cost, already mentioned, associated with the care of the family within the environment at home, allows you to generate great benefits to the health of asthmatic children and reduce the high rates of morbidity and mortality of this condition.

- Smoking and environmental factors such as climate for aggravating asthma symptoms
Oliveira LL de, Catunda HLO, Mendes IC et al.

The relationship between smoking and asthma only began to be studied from the second half of the twentieth century, when the influences of harmful exposure to tobacco smoke in children and adults with asthma began to be observed and identified. It began then to realize the worsening crisis and the increasing number of new cases of the disease among those exposed. 15

Smoking, from the numerous substances generated during the burning of tobacco, directly affects the airways, causing an intense inflammatory reaction. The constant aggression of the respiratory tree through daily and cumulative exposure to cigarette smoke causes hypersecretion and can trigger the onset of respiratory. 15

The tobacco epidemic is still a major public health concern worldwide; making the control of asthma symptoms in patients exposed to tobacco smoke becomes even more difficult. Asthma and smoking interact significantly, since smoking increases and worsens asthma symptoms, making it difficult to control, as well as accelerating the loss of lung function and worsening the quality of life of patients. In children, the association between passive smoking and asthma has a fundamental role in the development and severity of asthma. 16

The environmental exposure to tobacco during the first year of life has the potential to significantly affect the growth and function of the respiratory system as a whole. There is ample evidence that infants and children exposed to tobacco smoke have an increased risk of developing asthma and lower respiratory tract infections. This increased susceptibility has been related to the immaturity of the neonatal immune system during exposure. Studies have shown that maternal smoking during pregnancy in particular is a significant risk factor for developing asthma. 11

This fact justifies the importance of the health professional to investigate the habit of smoking in the home since before the birth of the child until his teenage years, having the purpose of intervention and family counseling, it is more likely that the wheezing and asthma in homes smokers are more frequent than in families of non-smokers. These changes in attitudes and habits of families in the home environment require awareness in a short time, being difficult to achieve, and nurses must be able to handle this type of situation the best way possible and seek effective educational strategies for success with this awareness.

Climatic factors affect the dynamics of asthma, increasing their morbidity and severity. These factors include the presence of pollutants in atmospheric air, both external and internal, and local weather conditions, such as temperature, relative humidity and wind speed. 17 It is known that children with asthma are among the groups most susceptible to the adverse effects of environmental factors. Among the effects of exposure and sensitization to these environmental agents, can highlight the reduction in development and lung function, and increased the number of episodes of respiratory illnesses and hospitalizations. 18

You cannot control the weather factors, but it is up to caregivers of asthmatic children extra attention in order to control their excessive exposure to these factors, protecting it adequately in order to prevent further disease.

- Asthma in the family context allied to nursing assistance

Asthma, being a complex disease, involving the active participation of affected children and their families, it causes physical limitations, emotional and social, making it necessary that the assistance provided by health care professionals is carried out in full and globalized, the way that facilitates proper control of this disease. Therefore, in addition to pharmacological treatment, it is necessary to explore the knowledge that the person with asthma and their families have in relation to risk factors and the proper use of medications, as well as control signals and uncontrolled disease. 1,19

Because of the chronicity of the disease, treatment in children is usually done at home, under the responsibility of the family. Therefore, knowledge of the family on asthma may influence treatment adherence and, consequently, in the control of symptoms in children. 3

The adequacy of child care may also depend directly on the skills or abilities of the caregiver, usually influenced by several factors such as education, cultural environment, state of physical and mental health, self-confidence and autonomy, workload and time availability, and knowledge on pathology, the cultural care and the actions that are performed by them in prevention. 7,20

Therefore, so there is a quality nursing care, the nurse must possess not only the asthmatic patient, but must fall within the family, knowing their reality, particularities and their knowledge about the disease, since the family is one of the major social groups in the formation of the child and where the
primary caregiver comes, and, in most cases, the mother herself. Inserting this context, the professional nursing can be used strategies which considers most appropriate for the family to arrange the conditions necessary to promote effective solutions in adverse situations against this disease.

Several studies argue that the difficulties in the management of asthma are related to the lack of educational programs. The guidelines for the prevention and treatment of symptoms are essential for optimal disease control. Educational programs for patients with asthma are cost-effective and, even if there is an increase in spending on medication and the number of queries, this is offset by the reduction in visits to the emergency services and hospitalizations.21

Given this statement, we see the need for more public policies that encourage effective educational programs aimed at patients suffering with asthma and their families/caregivers, and nursing professionals have an important role in this process, because it is directly linked to the issue of education for promote the health of asthma and work actively to prevent and treat symptoms of the disease.

CONCLUSION

Predisposing factors and conditions related to the home environment that can provide asthma attacks are: modernization of the home environment, mites and house dust, humidity, strong odors, plants, animals, cigarette smoke, environmental factors, socioeconomic conditions.

Front of the considerations made, it was found that the nurse plays an essential role in health promotion, prevention and control of asthma, seeking to know the particularities of family, caregivers and the asthmatic patient to guide them as best as the pathology, predisposing factors and determinants of asthma attacks and the treatment adherence ideal; also no need to keep away from asthma all these predisposing factors and conditions related to the home environment, mainly because children often spend much of the day in their homes. It is essential to family fit and commit, as their chances with the lifestyle geared to children with asthma, as it is the center of care offered, which combined with efficient guidance by health professionals, where nurses will be added to the responsibilities in the fight against this disease.

Based on all these aspects, the health professional should consider critical awareness, education and promotion of family health. Thus, it is possible to intervene appropriately, using strategies and public policy attention to these children in order to reduce the factors that predispose to asthma attacks in the home environment, achieving thereby results more accurate and effective in controlling asthma.

REFERENCES

Oliveira LL de, Catunda HLO, Mendes IC et al.


Asthma attacks: reflections about the...