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Knowledge of mothers of infants about food hypersensitivity

Conhecimento das mães de lactentes sobre a hipersensibilidade alimentar**Conocimiento de las madres infantiles sobre la hipersensibilidad alimentaria****RESUMO**

Objetivo: Identificar o conhecimento das mães de lactentes sobre a hipersensibilidade alimentar devido a alergia às proteínas do leite de vaca e intolerância à lactose. Métodos: Estudo exploratório descritivo, tipo quantitativo, realizado com mães de lactentes por meio de um questionário estruturado e, posteriormente, realizada análise descritiva dos dados. Resultados: Quanto ao nível de conhecimento, 57% não tem nenhum sobre alergia às proteínas do leite de vaca e 43% admitiram que não têm conhecimento sobre a intolerância à lactose. E 87% das mães relataram que nunca receberam orientações sobre alergia às proteínas do leite de vaca e 57% também nunca haviam sido orientadas sobre a intolerância à lactose. As fontes de informações mais citadas foram médico pediatra, familiares e uso das mídias digitais. Conclusão: O conhecimento das mães sobre hipersensibilidade alimentar é fragmentado e frágil, além de ter um déficit nas orientações realizadas pelos profissionais.

DESCRIPTORES: Mães; Lactente; Hipersensibilidade alimentar; Enfermagem pediátrica; Alimentos infantis.

ABSTRACT

Objective: To identify the knowledge of mothers of infants about food hypersensitivity due to allergy to cow's milk proteins and lactose intolerance. Methods: Descriptive exploratory study, quantitative type, carried out with mothers of infants through a structured questionnaire and subsequently performed descriptive data analysis. Results: As for the level of knowledge, 57% have none about allergy to cow's milk proteins and 43% admitted that they have no knowledge about lactose intolerance. And 87% of mothers reported that they had never received guidance about allergy to cow's milk proteins and 57% had never been instructed about lactose intolerance either. The most cited sources of information were pediatricians, family members and the use of digital media. Conclusion: The knowledge of mothers about food hypersensitivity is fragmented and fragile, in addition to having a deficit in the guidelines provided by professionals.

DESCRIPTORS: Mothers; Infant; Food hypersensitivity; Pediatric nursing; Infant Food;

RESUMEN

Objetivo: Identificar el conocimiento de las madres de lactantes sobre la hipersensibilidad alimentaria por alergia a las proteínas de la leche de vaca e intolerancia a la lactosa. Métodos: estudio exploratorio descriptivo, de tipo cuantitativo, realizado con madres de lactantes a través de un cuestionario estructurado y posteriormente realizado análisis descriptivo de datos. Resultados: En cuanto al nivel de conocimiento, el 57% no tiene ningún conocimiento sobre la alergia a las proteínas de la leche de vaca y el 43% admitió no tener conocimiento sobre la intolerancia a la lactosa. Y el 87% de las madres informaron que nunca habían recibido orientación sobre la alergia a las proteínas de la leche de vaca y el 57% tampoco había recibido instrucciones sobre la intolerancia a la lactosa. Las fuentes de información más citadas fueron los pediatras, los familiares y el uso de medios digitales. Conclusión: El conocimiento de las madres sobre la hipersensibilidad alimentaria es fragmentado y frágil, además de tener un déficit en las pautas que brindan los profesionales.

DESCRIPTORES: Madres; Infantil; Hipersensibilidad alimentaria; Enfermería pediátrica; Alimentos para bebés;

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INTRODUCTION

In recent decades, cases of allergic sensitization to food have been noted all over the world, thus food allergy (FA) has become a very frequent nutritional problem, especially in babies and preschool-age children.¹ In which they cause an immune response of the body to exposure to food antigen, usually a protein that causes immediate or delayed hypersensitivity reactions.²

It is known that there are several types of foods that can cause food allergy, however, cow's milk protein allergy (CMPA) is the main cause of allergic reactions in infants and preschool children.³ A study carried out by the Ministry of Health in nutritional care services that serve the Unified Health System (SUS), found that in 34 Brazilian municipalities there is an average prevalence of 0,4% of children with CMPA.⁴ Furthermore, lactose intolerance is capable of overestimating the prevalence in the self-report study, in relation to reactions to cow's milk not related to the immune system.⁵

Lactose intolerance (LI) is often confused with CMPA, as it presents similar clinical manifestations, despite having a different etiology. LI is prevalent in 65% of the world population,⁶ being a syndrome that occurs due to the partial or total inability of the lactase enzyme to break down lactose,

making its absorption difficult.

Considering both APVL and IL, which cause reactions in the body, more attention to health is necessary, requiring interventions and care from the health professional in relation to parents and the child, in the supervision and monitoring of feeding, in addition to guidance related to alternative sources of substitution, encouraging the reading and interpretation of food labels.⁷

It is noticed that food allergy is a little known topic among health professionals and the general population. And when the monitoring is not adequate, they drastically affect the child's quality of life and the lack of support from professionals causes family members to seek knowledge on their own through exchanges of experience with other mothers, reading the food label and empirical tests with food intake and observation of signs and symptoms that may arise.⁸

In this perspective, and in order to provide subsidies that portray the maternal perspective in order to improve care for children with CMPA or LI and their families, this study aims to clarify the following question: What is the knowledge of families, especially mothers of infants and/or preschool children about cow's milk protein allergy or lactose intolerance? To answer it, the objective of the study was defined: to identify the knowledge of mothers of infants about food hypersensiti-

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vity due to allergy to cow's milk proteins (CMPA) and lactose intolerance (IL).

METHODS

This is an exploratory descriptive study, with a quantitative approach, carried out with 30 mothers belonging to the coverage area of a Basic Health Unit (UBS) in a district in the interior of northern Paraná, Brazil. The UBS in question has 2,340 registered users, with the Family Health Strategy (FHS) team, composed of a multidisciplinary team consisting of a general family doctor, a family nurse, three nursing technicians, a nursing assistant, three community agents, a dentist, a dental assistant/technician and a cleaning assistant who ensure comprehensive, continuous and equitable care, maintaining holistic care, promoting health promotion and prevention actions for the entire population.

Data were collected between the months of July to August 2020, through interviews previously scheduled by telephone. They were carried out on days, times and places defined by the participants, whether at the mother's own home or at the UBS. The data collection instrument was developed by the researchers, consisting of a structured questionnaire, containing objective questions related to breastfeeding, CMPA and IL.

The inclusion criteria were defined as: mothers of infants or preschool children aged between 6 and 24 months, registered in the aforementioned UBS, who agreed to participate in the study, after prior invitation from the Community Health Agents (CHA). Refused to participate in interview 4, which were excluded.

A priori, the information was compiled in an Excel spreadsheet of Microsoft Windows 8 and later a descriptive analysis of the data was performed, presented in a table of absolute frequencies (n) and percentages (%).

The study was developed in accordance with the precepts regulated by Resolution 466/2012 of the National Health Council/Ministry of Health. The project was approved by the Research Ethics Commit-

tee under opinion n° 4.702.035 (CAAE n° 32428220.9.0000.9247). All participants expressed their consent to participate in the study, signing the Informed Consent Form in two copies of equal content.

RESULTS

Thirty mothers were interviewed from the respective UBS under study, most of whom were aged between 19 and 25 years (minimum age of 18 years and maximum of 42 years, with an average of 27,06 years). Regarding the level of education, 50% (n=15) had completed high school and 43,3% (n=13) claimed to be housewives. Regarding the age of infants and preschoolers, the age ranged between 6 and 24 months (mean of 13,4 months) (Table 1).

The analysis of the questionnaire

showed that 23,3% (n=7) of infants and preschoolers stopped breastfeeding and it is noted that 76,7% (n=23) received exclusive breastfeeding (Table 2).

As for the knowledge of the child's health history about the main signs and symptoms related to CMPA and IL, 20% (n=6) of the mothers identified their presence at some point in childhood. It is important to highlight that the signs and symptoms recognized by the mothers do not seem to be related to the clinical situations addressed in this study, considering that the occurrence was punctual and disappeared without any modification in the children's diet. Of the 30 children participating in the research, only one has a diagnosis of CMPA (Table 2).

With regard to the level of knowledge of mothers about CMPA, 57% (n=17)

Table 1 – Sociodemographic characteristics of mothers registered in a UBS in the interior district of northern Paraná, Brazil.

MATERNAL VARIABLES	N	%
Age groups		
19 – 25	15	50,0
26 – 35	12	40,0
36 – 42	3	10,0
EDUCATION		
Complete primary education	8	27,0
Complete High School	15	50,0
Complete Higher Education	5	17,0
Post-graduation	2	7,0
PROFESSIONAL OCCUPATION		
Housewife	13	43,2
Financial assistant	3	10,0
Autonomous	2	6,7
Student	2	6,7
Dental assistant	2	6,7
Others	8	26,7
CHILD AGE (MONTHS)		
6 – 12	13	43,3
13 -19	13	43,3
20 – 24	4	13,4
TOTAL	30	100,0

Source: Research data.

Table 2 – History of breastfeeding and infant health in the interior district of northern Paraná, Brazil.

VARIABLE	N	%
Interruption of breastfeeding		
Yes	7	23,3
No	23	76,7
Breastfeeding time*		
THREE AND FOUR MONTHS		
Fifth month	3	13,0
Sixth month	10	43,0
Seventh month	2	9,0
SIGNS AND SYMPTOMS RELATED TO CMPA AND IL		
Yes	6	20,0
No	24	80,0
Type of signs and symptoms		
Diarrhea and cramps	3	50,0
Red patches on the skin	2	33,0
Blood in feces, vomit and gas	1	17,0
DIAGNOSIS OF FOOD HYPERSENSITIVITY		
Yes	1**	3,0
No	29	97,0
Total	30	100,0
20 – 24	4	13,4
TOTAL	30	100,0

*number referring to infants who did not have breastfeeding interruption.
 **CMPA diagnosis
 Source: Research data.

said they had none and 43% (n=13) reported having some knowledge about this reaction. As for knowledge about IL, we obtained the same rates, but in the opposite direction, with 57% (n=17) of the mothers claiming to have some knowledge and 43% (n=13) having no knowledge about this digestive disorder.

When asked if they had already received any guidance on APVL, 87% (n=26) of the mothers said they had never received it and 13% (n=4) reported that they had received guidance from a pediatrician or allergist. As for IL, 57% (n=17) had never been oriented and 43% (n=13) reported having obtained information from a pediatrician, family members, internet and others. However, although the data are significant in relation to the knowledge of mothers about APVL

and IL, it is evident that knowledge can be fragile, fragmented, as in some cases it is acquired through popular culture.

DISCUSSION

Regarding the age of the mothers, there was a variation between 18 and 42 years old, and this profile is similar to the study carried out in medium-sized cities in the southern region of Brazil. ⁹ It was also noted the predominance of mothers who are housewives, compared to other professional occupations. This characteristic is associated with the cultural role that society attributes to women, among which they should promote family care. ¹⁰

Regarding the age of infants and preschool-age children, it is related to the fact

that up to 6 months many are on exclusive breastfeeding (EB) and after this phase, the introduction of food begins. An integrative review study subsidized by Evidence-Based Practice identified that EBF infants up to the sixth month of life have a lower risk of developing allergic symptoms, when compared to partially breastfed infants. ¹¹

From 24 months of age onwards, the diagnosis of CMPA, for example, is considered rare, as there may be progressive oral tolerance to cow's milk protein. ⁶ In addition, when food is introduced early before the growth and maturation of the body's systems, there is an increase in the risks for acute and chronic diseases, consequently causing damage to health, such as food allergy. ¹¹

Analyzing the data collected from the 30 mothers who used the services offered by the UBS, it was observed that, when approached about breastfeeding, 23,3% reported not having performed it, possibly due to determining factors for the early interruption of breastfeeding or non-breastfeeding. The findings of this study corroborate a research carried out in a municipality in Mato Grosso do Sul with 41 mothers of children assisted in childcare, highlighting the determining factors for non-adherence to breastfeeding, such as: insufficient amount of milk (34,1%), refusal of the child (26,8%), illnesses or use of medicines (17,1%) and interruption in milk production (9,8%), which are usually described by the mothers. ¹²

It is essential to guide mothers and other family members about the effect that breast milk has on child growth and development, and breastfeeding is a protective factor against food allergies, when compared to those who are predominantly breastfeeding and/or used infant formulas. ¹¹

On the other hand, in this study, 76.7% of infants and preschool-age children received EBF, with a variation in time, as 43% of these were breastfed for up to six months of life and the others varying between three and seven months of age with supplemented breastfeeding. Therefore, it is important to make the population aware of the benefits of breastfeeding in the prevention

and promotion of child health, especially in cases that present allergic manifestations.¹¹

When interpreting the knowledge of mothers in relation to signs and symptoms regarding CMPA and LI, considering that it occurred in specific moments and soon after the disappearance of symptoms, we realized that the situations reported are not related to the clinical manifestations of the study. Given the above, it is noted that signs and symptoms of CMPA and LI are similar to each other and are often confused with other acute diseases.¹³

Considering this fact, it is essential that health professionals promote health education with family members, highlighting the evidence of diseases that are more frequent in childhood, consequently providing an early diagnosis. It is also known that in cases of food allergy in children, there is an indiscriminate exclusion of food from the diet by the family, which can compromise the nutritional status of children. Therefore, it is important to know and demystify food allergy for both professionals and families, thus avoiding development and growth problems in childhood.¹⁴

Furthermore, in the present study, only one child was diagnosed with CMPA. In cases of CMPA, the recommendation first foresees the offer of the extensively hydrolyzed formula and, in the absence of clinical improvement, the replacement by the amino acid formula.¹⁵ It is noteworthy that the strict dietary restriction also significantly

affects the life of the child and family, especially mothers, who often promote social isolation from the family.⁹ When the family is faced with a diagnosis of CMPA, it triggers a feeling of insecurity and fear, so it is necessary that health professionals offer informational and instrumental support, ensuring that mothers in particular can feel safe and welcomed in the new context. Food allergies can influence the psychosocial status of mothers, which can directly impact the child's health.¹⁶

Regarding the guidance received by professionals, 87% of the mothers said they had never received guidance on APVL and regarding IL, 57% had never received guidance either. It is noteworthy that childcare is a great opportunity to carry out health promotion and clarify doubts, in order to maintain comprehensive care for this child. It is essential that health professionals, especially the nurse responsible for childcare most of the time, establish a bond with the mothers, as the absence of this is perceived in the lack of information, which makes them seek information in other support networks and in digital media.¹⁷ However, eating practices during this stage of childhood are permeated by the mothers' culture and values.¹⁸

It is important to note that the nurse was not mentioned among the sources of information, evidencing the need for training in relation to CMPA and IL, which will serve as a subsidy in maternal and child health

care, such as prenatal care, childcare consultations and household visits. Considering this context, qualified listening becomes important, welcoming these mothers in order to ensure knowledge and safety.¹⁸

As a limitation of the present study, the fact that it was carried out in a single district and in a single Basic Health Unit and the mothers did not have children diagnosed with CMPA and IL, except for a single case of CMPA, stands out. It is believed that the results found may support reflections for health professionals about the knowledge of mothers regarding CMPA and IL. Furthermore, it emphasizes the need for further research aimed at investigating the knowledge of mothers who have children diagnosed with CMPA and IL.

CONCLUSION

Mothers' knowledge of cow's milk protein allergy and lactose intolerance is fragmented and fragile. There is also evidence of a deficit in the guidelines provided by professionals in relation to the two clinical conditions, requiring training in order to maintain adequate care.

The knowledge that the mothers had came from the social support network and digital media, with few health education measures for these mothers. In this context, nursing has an essential role, offering informational and instrumental support to these mothers.

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