

ORIGINAL ARTICLE

Cow's milk protein allergy, quality of life and parental style

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Abstract

Introduction: Cow's milk protein allergy requires changes in family habits to maintain children's health.

Objective: This study evaluated the effects of cow's milk protein allergy on the health of children, the quality of life of parents and children, and the adopted parental styles.

Methods: Control case study. The case group consisted of children with cow's milk protein allergy, from eight months to five years old, and those guardians, and the Control Group, for healthy children of the same age group, and their parents. The quality of life of the child (TNO-AZL Preschool Children Quality of Life) and the caregiver (SF-36) were evaluated; parental style (Parental Beliefs and Care Practices Scale); and socioeconomic and health data of the child. The Mann-Whitney test was used to compare the groups ($p < 0.05$).

Results: 76 dyads from the case group and 44 from the control group participated. Children with cow's milk protein allergy had a lower quality of life in the health dimension, worse nutritional status, followed up with a larger number of health professionals. Those in charge of the case group offered less body stimulation to the children. Those in the control group had a lower quality of emotional life.

Conclusions: Cow's milk protein allergy had an impact on the health and nutritional status of children, on the corporal stimulation received by the children, and on the quality of emotional life of those guardians.

Keywords: milk hypersensitivity, quality of life, parent-child relations, child care.

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Authors summary

Why was this study done?

The diagnosis of allergy to cow's milk protein imposes a series of changes in the family lifestyle^{2,6,10} related to the prevention of the occurrence of allergic responses¹⁰, and to the development of conducts to be performed when these responses occur. Families with children who are allergic to cow's milk protein need to remove milk-derived foods from the child's entire diet¹, which include all chocolates, breads, yogurt, cheeses and derivatives, cookies and many more. In addition, given the strong allergic response, these children need to have their own utensils, such as plates and cutlery, pots and, often, even a blender. In addition, the social life of family members is potentially compromised, since most of the food and utensils in the homes of other families, and in dining environments outside the home, such as restaurants, schools and cafeterias, contain traces of cow's milk, therefore, they are potentially allergenic⁷. Furthermore, due to dietary restrictions, these children may show different physical development from those without allergy to cow's milk protein.

What did the researchers do and find?

The present study comparatively investigated patterns of adult parenting styles responsible for children with and without allergy to cow's milk protein, and children's health conditions, through a questionnaire applied to those responsible and access to health records, and the following differences were identified: 1) the adults responsible for children with allergy to cow's milk protein adopted more protective postures, indicated by the higher frequency of cervix and less frequency of body play with the children, and lower frequency of enrollment in centers child education; 2) in the general dimension "child health", mentioned by the parents in the quality of life questionnaire, some of the typical symptoms of cow's milk protein allergy were reported more frequently by parents of children in the group with allergy to cow's milk protein. cow than the control group; 3) responsible for children with allergy to cow's milk protein indicated higher levels of quality of life for their children than parents of control children, even though they have shown worse results for these children in several health assessments.

What do these findings mean?

The set of results of the present research indicate that the protective actions of children with allergy to cow's milk protein, by their guardians, ended up impacting on various conditions of stimulation for these children, since part of the protective actions apparently generated reduction of social experiences with other children and adults, as well as reduced physical stimulation for children with allergies, for example, by decreasing turbulent play with physical contact. Such conditions of restriction went beyond the allergy itself, extending to social and physical stimulation scenarios that, if well offered and controlled, could enhance the physical and cognitive development of children with allergy to cow's milk protein.

INTRODUCTION

Cow's milk protein allergy is the most common food allergy in infants, with a prevalence ranging between 2% and 5%. It presents as a transient allergy that evolves to tolerance in approximately 85% of affected children when they reach 3-5 years of age¹. The treatment involves the exclusion of cow's milk and other common childhood food products, which can affect the quality of life for children²⁻⁵ and other family members, such as parents^{2-4,6-8}, encompassing emotional, practical, economic, and social aspects^{6,9}.

The diagnosis of cow's milk protein allergy imposes a series of changes in family lifestyle^{2,6,10} related to the prevention of allergic responses¹⁰, and the development of conducts to be performed when these responses occur. Families with children with cow's milk protein allergy need to remove all milk-derived foods from the child's diet¹, which includes all chocolates, breads, yogurt, cheeses and derivatives, cookies and many more. Also, given the strong allergic response, these children need to have their own utensils such as plates and cutlery, pots and often even blender. Moreover, the social life of family members is potentially compromised, since most of the food and utensils in other families, and in meal environments outside the home, such as restaurants, schools and snack bars, contain traces of cow's milk, so they are potentially allergenic⁷. Moreover, due to dietary restrictions, these children may have different physical development from those without allergy to cow's milk protein.

This whole scenario creates a favorable situation to influence changes in parental styles, which are the established relationships of parents with their children, and

which result in a peculiar set of behaviors or practices¹¹, and in quality of life levels, that is, in subjective well-being related to their own lifestyles.

Taking into account that cultures and food traditions vary between countries, also the main allergenic foods, the impact on quality of life may differ⁴, as well as the way in which the family deals with the care of children with food allergies. In the researched literature, there were no studies evaluating parenting styles in children with food allergies, only in other diseases that require different care for the child^{12,13}. Thus, the present study aimed to analyze the effects of cow's milk protein allergy on the health of children, quality of life of children and their guardians, and on the adopted parenting styles.

METHODS

Type of study and sample

It is a case-control, observational study¹⁴. The selection of the case group occurred at the service responsible for the distribution of supplements and enteral nutrition for adults and children and infant formulas for patients in the city. For this research, children were selected who received formulas for cow's milk protein allergy, with a diagnosis confirmed by the doctor, in the month of March 2016 and who were aged between eight months and five years old, totaling 36 children. Control children were indicated by the main caregiver of children with cow's milk protein allergy, having as inclusion criteria age between eight months and five years old and not have any chronic condition that affects their health.

Instruments

The following instruments were applied to the responsible adult for the child, father or mother, who was defined by the family as the child's main caregiver:

a) Socioeconomic and health information: part of the instrument validated and adapted by Fegadolli¹⁵ was used; however the researchers adapted some questions due to the age range of this research. This instrument addresses items about the child and socioeconomic information of the family and included the assessment of the children's nutritional status, by collecting the most recent measurements on weight and length / height noted in the child's health card, as well as age, in months that the child had when this record was done. From these data, the nutritional status was evaluated for the indicators of weight for length / height, length / height for age, weight for age and Body Mass Index - BMI for age. The indicators were classified in Z score of the World Health Organization¹⁶, as recommended by the Brazilian Ministry of Health¹⁷;

b) Quality of Life in Preschool Children TNO-AZL (TAPQOL): multidimensional questionnaire capable of assessing the quality of life of preschool children. It contains 43 multiple choice questions, including physical, cognitive and emotional domains¹⁸. The instrument was developed by Fekkes *et al.*¹⁹, translated and validated in Brazil by Tompsen¹⁸;

c) Medical Outcomes Study 36 - Item Short-Form Health Survey (SF-36): developed by Ware Jr and Sherbourne²⁰, translated and validated in Brazil by Ciconelli *et al.*²¹. It is a generic instrument for assessing quality of life, easy to administer and understand, containing 36 items, divided into 8 scales²¹. In this research, it was used to assess the quality of life of the child's main caregiver;

d) Parental Beliefs and Care Practices Scale - E-CPPC: built and validated by Martins *et al.*¹¹, it is indicated to assess the care of children encompassing five dimensions (primary care, body contact, body stimulation, stimulation by objects and face-to-face contact) with 25 questions. This instrument has two parts, that is, the practices performed by the parents and the importance attributed to each practice by the parents. In the present study, only part of the practices performed by the parents was used due to the objectives of this research.

Data collection

It was carried out with prior telephone scheduling. The phone number, address and name of the case children's parents were obtained from the Special Food Delivery sector. In the home visit, the procedures were explained to the legal guardian for each child, and only those who signed the terms of free and informed consent participated in the study. Subsequently, data were collected using research instruments, lasting 30 to 45 minutes.

For each case child, the child's legal guardian was asked to indicate three children of similar age of the case child, to be research controls, as long as they do not have

a diagnosis of cow's milk protein allergy and other food allergies, identified at the time of data collection with these controls. Of these three children, two children were chosen to be invited to participate. If there was a refusal, the third child was invited, or if there was also a refusal, the third child indicated by another case was invited. In the same way as with the case group, telephone contact was made to schedule the visit for data collection, and the collection only occurred after signing the terms of free and informed consent. This methodology is indicated by Rodrigues and Werneck¹⁴.

Statistical analysis:

Data were analyzed using parametric and non-parametric statistics, according to their usage parameters. For the comparison of the groups, it started with the determination of the normality of data (Kolmogorov-Smirnov test). Such the variables were not normally distributed; the Mann-Whitney test was applied. The statistically significant difference was considered when the p value was less than 0.05.

Ethical matters

The study was approved by the Research Ethics Committee of the Regional University of Blumenau (FURB) under protocol 50575615.5.0000.5370 / 2015, in addition to signing the terms of free and informed consent before the interview by the child's legal guardian consenting to provide information about him/her and the child.

RESULTS

Seventy children and their legal guardian anticipated in the study: 26 cases and 44 controls. Table 1 presents the groups' descriptive variables. In both groups, the child's legal guardian for answering the questionnaire was the mother (Case Group n = 22, 84.6%; Control Group: n = 40, 90.9%) and the married marital status/stable union prevailed in both groups (Case Group: n = 22, 84.6%; Control Group: n = 42, 95.5%). Fewer children in the case group attended Early Childhood education Centers than the control group (p = 0.013).

Children with cow's milk protein allergy were diagnosed with allergy at the median of 3.5 months of age (P25 = 1.75; P75 = 6.25), with predominance of the use of partially hydrolyzed infant formula (n = 15, 57.7%). The groups did not differ in the control variables: child's age, age of child's guardian, education, and family income (p > 0.05).

Table 2 shows that, when comparing groups, children with cow's milk protein allergy had lower body weight (p = 0.003), shorter length/height (0.018), and more follow-up with health professionals (p = 0.003). There were significant differences in nutritional status, with a statistically significant difference in the weight for age indicator (p = 0.040).

Table 1: Descriptive variables of the Case and Control Groups in medians and 25th and 75th percentiles or percentage and number*.

| Variables | Case group | Control group |
|--|--------------------|--------------------|
| Adult legal guardian age in years | 32.0 (29.0 – 35.0) | 34.0 (31.0 – 37.5) |
| Adult legal guardian's education | | |
| Basic education | 3.8% (n=1) | 2.3% (n=1) |
| High school | 30.8% (n=8) | 20.4% (n=9) |
| University education | 42.3% (n=11) | 34.1% (n=15) |
| Postgraduate | 23.1% (n=6) | 43.2% (n=19) |
| Family income | | |
| ≤ 3 minimum wages | 23.2% (n=6) | 13.7% (n=6) |
| 5 a 6 minimum wages | 53.9% (n=14) | 52.4% (n=23) |
| 7 a 9 minimum wages | 7.6% (n=2) | 6.8% (n=3) |
| 10 a 12 minimum wages | 3.8% (n=1) | 11.3% (n=5) |
| 13 a 15 minimum wages | 0 | 11.3% (n=5) |
| ≥ 16 minimum wages | 11.5% (n=3) | 4.5% (n=2) |
| Child age in years | 18.5 (13.0 – 21.0) | 22.5 (15.5 – 37.0) |
| Children's gender | | |
| Female | 42.3% (n=11) | 43.2 (n=19) |
| Male | 57.7% (n=15) | 56.8 (n=25) |
| Attendance in months at the Early Childhood Education Center | 7.0 (4.0 – 12.0) | 12.0 (8.0 – 24.0) |
| Breast-feeding in months | 4.0 (2.0 – 6.0) | 5.0 (4.0 – 6.0) |
| Number of medicaments used by the child | 2.0 (2.0 – 3.0) | 1.5 (1.0 – 2.0) |
| Number of health professionals monitoring the child | 2.0 (1.0 – 2.0) | 1.0 (1.0 – 2.0) |

Source: research data. * Groups did not differ as to the control variables present in this table, by comparison made using the Mann-Whitney test ($p > 0.05$)

Table 2: Nutritional status of the Case and Control groups for weight for age, height for age, weight for height and Body Mass Index for age indicators.

| Variables | Case group | Control group | p |
|--------------------------|----------------|---------------|--------|
| Weight (kg) | 10.7750 | 11.7000 | 0.003* |
| Height (m) | 0.7975 | 0.8350 | 0.018* |
| BMI (kg/m ²) | 16.4044 | 16.5534 | 0.319 |
| Height for age | | | 0.064 |
| Very short stature | 3.8% (n=1) | - | |
| Short stature | 3.8% (n=1) | - | |
| Adequate stature | 92.3% (n=24) | 100.0% (n=44) | |
| Weight for age | | | 0.040* |
| Underweight | 7.7% (n=2) | - | |
| Eutrophy | 92.3 % (n=24) | 95.5% (n=42) | |
| Overweight | - | 4.5% (n=2) | |
| Weight for height | | | 0.051 |
| Severe thinness | - | - | |
| Thinness | 3.8% (n=1) | 2.3% (n=1) | |
| Eutrophy | 80.8% (n=21) | 61.4% (n=27) | |
| Overweight risk | 15.4% (n=15.4) | 27.3% (n=12) | |

Continuation - Table 2: Nutritional status of the Case and Control groups for weight for age, height for age, weight for height and Body Mass Index for age indicators.

| | | | |
|-----------------|--------------|--------------|-------|
| Overweight | - | 6.8% (n=3) | |
| Obesity | - | 2.3% (n=1) | |
| BMI for age | | | 0.173 |
| Severe thinness | - | - | |
| Thinness | 7.7% (n=2) | 2.3% (n=1) | |
| Eutrophy | 69.2% (n=18) | 63.6% (n=28) | |
| Overweight risk | 23.1% (n=6) | 25.0% (n=11) | |
| Overweight | - | 9.1% (n=4) | |
| Obesity | - | - | |

Source: research data. Mann-Whitney test.

About the parenting style (Table 3), there was a difference between the groups regarding body stimulation ($p = 0.012$), evidenced by the higher frequency of lap received by children with cow's milk protein allergy ($p = 0.022$), and lower body games ($p = 0.003$), which are "fighting and tangling games."

The children's quality of life, informed by the responsible adult, children with cow's milk protein allergy had a higher frequency of colic ($p = 0.002$) and eczema ($p = 0.015$), and felt more difficult to breathe ($p = 0.042$) than those without cow's milk protein allergy. In summary, a higher health score ($p = 0.007$) was found in the children in the case group than in the control group, considering that higher scores on this instrument mean a higher frequency of perceived physical symptoms, which included nausea, pneumonia, otitis, eczema, cough, shortness of breath,

bronchitis, colic, abdominal pain, diarrhea, difficulty breathing, presence of phlegm and vomiting.

In the global dimension "behavior", even with no statistically significant difference ($p = 0.605$) parents of children with cow's milk protein allergy reported that their children had higher levels of irritation ($p = 0.016$) and felt more happiness ($p = 0.041$) than those without the allergy, that is, in sub-items of that dimension. In the question "I have patience with my son", the parents of the case group had lower levels of patience ($p = 0.004$), so they believed that their children felt that they had lower patience ($p = 0.044$). On the other hand, the quality of life of the responsible adult differed in the dimension "emotional aspects" ($p = 0.003$), in which the responsible adults of the case group had higher levels of quality of life than the parents of the control group.

Table 3: Median and 25th and 75th percentiles of the parental style scores, the child's quality of life and the quality of life of the person in charge of the Case and Control groups.

| Variables | Case group | Control group | p |
|-------------------------------------|-----------------------|----------------------|--------|
| Parenting style | | | |
| Primary care | 96.0 (88.0 – 100.0) | 96.0 (92.0 – 100.0) | 0.694 |
| Body contact | 88.0 (84.0 – 93.0) | 84.0 (80.0 – 92.0) | 0.060 |
| Body stimulation | 68.0 (63.0 – 73.0) | 76.0 (68.0 – 80.0) | 0.012* |
| Stimulation by objects | 72.0 (64.0 – 77.0) | 76.0 (64.0 – 84.0) | 0.288 |
| Face to face contact | 100.0 (83.0 – 100.0) | 100.0 (93.0 – 100.0) | 0.715 |
| Responsible adult's quality of life | | | |
| Functional capacity | 90.0 (80.0 – 100.0) | 92.5 (80.0 – 100.0) | 0.995 |
| Physical aspects | 100.0 (93.7 – 100.0) | 100.0 (75.0 – 100.0) | 0.710 |
| Pain | 67.0 (62.0 – 100.0) | 72.0 (51.0 – 84.0) | 0.703 |
| General health state | 81.0 (67.0 – 92.0) | 81.0 (72.0 – 87.0) | 0.956 |
| Vitality | 62.5 (53.7 – 81.3) | 60.0 (45.0 – 70.0) | 0.229 |
| Social aspects | 87.5 (75.0 – 100.0) | 87.5 (62.5 – 100.0) | 0.694 |
| Emotional aspects | 100.0 (100.0 – 100.0) | 100.0 (33.0 – 100.0) | 0.003* |
| Mental health | 76.0 (68.0 – 88.0) | 78.0 (68.0 – 84.0) | 0.859 |

Continuation - Table 3: Median and 25th and 75th percentiles of the parental style scores, the child's quality of life and the quality of life of the person in charge of the Case and Control groups.

| Children's quality of life | Case | Control | p-value |
|----------------------------|--------------------|--------------------|---------|
| Sleep | 25.0 (8.3 – 46.9) | 18.7 (5.2 – 44.8) | 0.760 |
| Appetite | 11.1 (0.0 – 23.6) | 5.6 (0.0 – 26.4) | 0.443 |
| Health | 23.7 (11.5 – 35.6) | 10.9 (4.2 – 21.5) | 0.007* |
| Behavior | 25.0 (11.3 – 32.1) | 21.4 (11.9 – 30.5) | 0.605 |
| Mood | 8.3 (1.4 – 14.8) | 5.6 (1.8 – 11.1) | 0.425 |
| Behavior a | 0.0 (0.0 – 6.9) | 0.0 (0.0 – 4.2) | 0.603 |
| Healtha | 0.0 (0.0 – 1.39) | 0.0 (0.0 – 0.0) | 0.158 |
| Communication a | 0.0 (0.0 – 26.0) | 0.0 (0.0 – 4.2) | 0.252 |

Source: survey data * Statistically significant values ($p < 0.05$). a Categories applied to children older than 18 months, which were nominated by the authors, because in the validation of the instrument in Brazil there is no denomination of these categories. Mann-Whitney test.

DISCUSSION

The present study comparatively investigated patterns of parenting styles of children's legal guardian with and without cow's milk protein allergy, and children's health conditions, through a questionnaire applied to those responsible adults and access to health cards, and the following differences were identified: 1) the responsible adults for children with cow's milk protein allergy adopted more protective postures, indicated by a higher frequency of the child in the lap and lower frequency of body play with the child, and lower frequency of enrollment in early childhood education centers; 2) in general dimension "child health", mentioned by the parents in the quality of life questionnaire; some of the typical symptoms of cow's milk protein allergy were reported more frequently by parents of children in the group with cow's milk protein allergy than the control group; 3) responsible adults for children with cow's milk protein allergy indicated higher levels of quality of life for their children than parents of control children, even though they have shown worse results for these children in several health assessments.

Vieira *et al.*²² showed predominance of gastrointestinal symptoms in children up to 24 months of age with cow's milk protein allergy. However, gastrointestinal symptoms were more frequent in children under 6 months of age than at other ages, whereas respiratory manifestations were more reported between 6 months and 12 months of age²². There is evidence that the presence of gastrointestinal symptoms in children impacts the quality of parents more emotionally than other symptoms⁵, such as colic reported in the present study.

As for nutritional status, lower bodyweight of the case group in relation to the control group may be related to 7.7% of the children with cow's milk protein allergy, having presented low weight for their age and 4.4% of the controls children having presented high weight for age. This indicates the presence of different health risk factors associated with the two clinical conditions described. The low weight may be due to the need for a cow's milk exclusion diet, which favors the weight-height deficit and inadequate intake of energy, proteins, and micronutrients²³.

Vieira *et al.*²² showed significant deficits of 15.1% of weight for age, 11.3% of weight for height, and 23.9%

of height for age, suggesting that malnutrition may occur as a result of cow's milk protein allergy. The same authors did not note overweight/obesity in the Brazilian children²². Aguiar *et al.*²⁴, evaluating only children with cow's milk protein allergy, verified, by BMI for age, 12.9% of thinness or marked thinness, and 67.8% of normal weight, 15.2% of risk for overweight and 4.1% of overweight or obesity.

Birdi, Cooke, and Knibb⁷ observed that parents of children with food allergies had higher rates of stress, anxiety, and depression than parents of children in the control group. In the present study, based on the assessments of the responsible adults, the emotional health of the children's responsible adults in the case group was better than that of the control group. Since many children in the present study had been diagnosed more than a year before this research, it must be considered that the participants had already gone through the entire process of diagnosis and adaptation that the cow's milk protein allergy imposed, with the consequent development of skills to avoid problems and complications and control the onset of allergy symptoms.

Results of the present research indicate that protective actions for children with cow's milk protein allergy, of their legal guardians, ended up impacting on several stimulation conditions for these children since part of the protective actions apparently generated a reduction of social experiences with other children and adults, as well as reduced physical. Stimulation for children with allergies, for example, by reducing turbulent play with substantial contact. Such conditions of restriction were beyond the allergy itself, extending to social and physical stimulation scenarios that, if well offered and controlled, could enhance the physical and cognitive development of children with cow's milk protein allergy.

The overprotection of children with food allergies had also been shown in the literature^{4-6, 13, 25}. Overprotective parents are vigilant, have difficulty separating and exercise a high level of control and discourage independent behavior¹¹, facts presented in the present study. The degree of overprotection and its consequences are discussed in the literature. Initially, parental help and protection would serve as a practical function, but it can spread to unnecessary aspects. However, there are situations in

which high levels of protection could be useful, as in the case of children who have not yet presented adequate self-care capacity¹³.

Williams and Hankey⁸ demonstrated that lower monitoring of parents was associated with the older age of the child with food allergies and with greater self-monitoring of children in the process of food intake. In children with chronic diseases, on the other hand, there was a significant reduction in the quality of the relationship between parents and children when the disease lasted lower than three years¹². A qualitative study with parents of children with food allergies suggested that hope could be a protective factor against the negative emotional impact of food allergies and, thus, the creation of a safe environment for their child, where the disease would be in the background, even after experiencing the trauma, sadness, and anxiety in your child's diagnosis⁶.

The present study shows empirical data on the impacts of cow's milk protein allergy on children's health conditions, on the quality of life of responsible adults and children, as well as on the development of parenting styles. The findings described here may have an impact on models of comprehensive care, for example, at the intersectoral level. In nutritional conduct, comprehensiveness must include the child's food in the environments in which it should remain, such as, for example, early childhood education centers, lower frequented by these children, as the result described here. In this sense, there may be an association between the lesser permanence of these children in school environments, with fears by those responsible adults for eating foods with derivatives and traces of cow's milk, experiences possibly related to more protective parenting styles adopted by those responsible for these children. In other words, protocols must be established, or reevaluated, in early childhood education

centers for receiving children with allergy to cow's milk protein, and wide dissemination to those responsible for children of the existence of safety conditions for children with allergies.

The present study also reinforces the importance of assessing and monitoring the nutritional status of children with cow's milk protein allergy, due to the lower observed values of weight, length/height and weight for age. Such findings indicate the need for greater attention from health professionals, such as nutritionists and pediatric doctors, in order to reduce the impacts of allergy on the development of children, through the dietary conduct necessary for treatment.

Even with the relevance of the results, some limitations should be considered in this study, such as no reaching the expectation of two control children for each child case, even making telephone contact with all those responsible for the indicated children. It can also be mentioned the fact that the nutritional assessment is carried out with secondary data from the child's health card, due to the possibility of unbalancing the equipment, mainly scales, when traveling to the home visit, and due to the bias of measurement techniques.

Thus, those responsible adults for children with cow's milk protein allergy are more protective and vigilant, as evidenced by the higher frequency of child in lap and lower body play. The allergy was associated with the development of lower weight, lower height, and lower weight for age, lower frequency of children in school settings, and they were accompanied by more health professionals. Children with allergies had a worse quality of life in the "health" dimension, but their responsible adults had a better emotional quality of life, probably related to the development of skills to deal with their own allergies.

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Resumo

Introdução: A alergia à proteína do leite de vaca requer alterações dos hábitos familiares para manutenção das condições de saúde das crianças.

Objetivo: Este estudo analisou os efeitos da alergia à proteína do leite de vaca sobre a saúde de crianças, qualidade de vida de responsáveis e crianças e sobre os estilos parentais adotados.

Método: Estudo caso controle. O grupo caso foi constituído por crianças com alergia à proteína do leite de vaca, de oito meses a cinco anos de idade, e seus responsáveis, e o Grupo Controle, por crianças saudáveis, de mesma faixa etária, e seus responsáveis. Foram avaliadas a qualidade de vida da criança (TNO-AZL Preschool Children Quality of Life) e do responsável (SF-36); estilo parental (Escala de Crenças Parentais e Práticas de Cuidado); e dados socioeconômicos e de saúde da criança. O teste de Mann-Whitney foi utilizado para comparar os grupos ($p < 0,05$).

Resultados: Participaram 26 díades do grupo caso e 44 do grupo controle. Crianças com alergia proteína do leite de vaca apresentaram menor qualidade de vida na dimensão saúde, pior estado nutricional, realizaram acompanhamento com maior número de profissionais da saúde. Os responsáveis do grupo caso ofereceram menor estimulação corporal às crianças. Responsáveis do grupo controle apresentaram menor qualidade de vida emocional.

Conclusão: A alergia à proteína do leite de vaca impactou na saúde e no estado nutricional das crianças, na estimulação corporal recebida pelas crianças, e na qualidade de vida emocional dos responsáveis.

Palavras-chave: hipersensibilidade a leite, qualidade de vida, relações pais-filhos, cuidado da criança.

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