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## Do parents of children with allergic diseases need psychological support?

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### ABSTRACT

**Introduction:** Children with allergic diseases and their parents may not only be affected physically but also socially and psychologically.

**Aim:** To search the parents' opinions of allergic diseases and how they are affected by their children's allergic diseases.

**Material and methods:** This was a cross-sectional study of allergic children's parents who were followed by an allergy clinic for more than 6 months. One hundred and two children participated in the study. One of each child's parents (either father or mother) filled out a questionnaire form, which included questions about demographic characteristics and 20 multiple-choice questions about parents' opinions regarding allergic diseases and how they are affected by their children's allergic diseases.

**Results:** Forty percent of the parents thought that their children had an allergic disease because their bodies were weak and one third thought it was genetic. Sixteen percent of the parents' quality of life was highly affected because of their children's allergic disease whereas 6% were not affected. Parents who had a child with more than one allergic disease were significantly more affected ( $p < 0.05$ ). The most influential problem was children's symptoms of allergic diseases (42%) and secondly allergen avoidance (32%). Forty-eight percent of the parents reported work absenteeism. Almost half (46%) of the parents expected their physician to completely cure their children's allergic disease.

**Conclusions:** Significantly the most affected parents were those whose children had multiple allergic diseases. These parents may need psychological support.

### KEY WORDS

children, quality of life, asthma, allergic diseases, psychological support, allergy.

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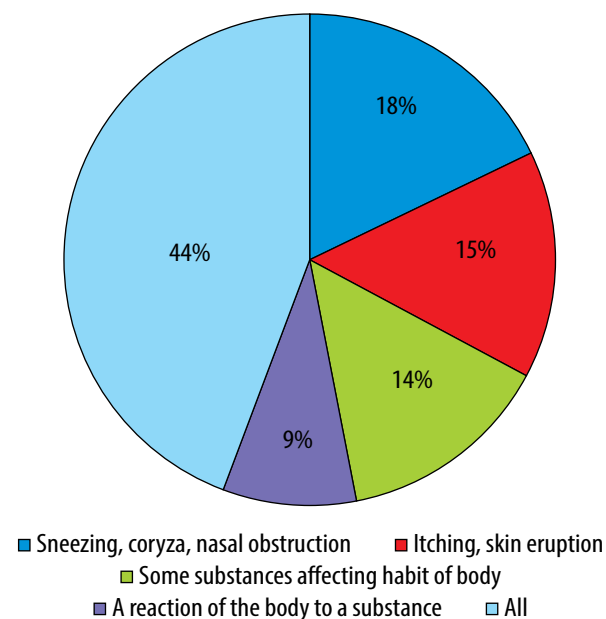
## INTRODUCTION

Allergic diseases are a common group of chronic illnesses, with increasing prevalence in the last decades [1–4]. Asthma, allergic rhinitis, atopic dermatitis, food allergy, and drug allergy are the most common allergic diseases. In addition to health-related impairments, these diseases may affect children's and their parent's social and school life [5].

Studies found that children with asthma or allergic rhinitis have lower quality of life (QoL) scores than healthy controls [6, 7]. Asthma exacerbations are frequently triggered by viral infections. These exacerbations also affect these children's and their parents' lives [8]. Wassenberg *et al.* showed that parents' perceived quality of life was age dependent in children with food allergies [9]. Warren *et al.* found that parental QoL differed among mothers and fathers of children with food allergies [10]. Another study found that the most important problem was disturbed sleep among the family members of children with atopic dermatitis [11]. Ražnatović Djurović *et al.* showed that atopic dermatitis had a significant negative impact on infants' QoL as well as on the QoL of their parents [12].

## AIM

The objective of this study was to search the parents' opinion of allergic diseases and how they are affected by their children's allergic diseases in the Turkish population.



**FIGURE 1.** What the parents understand by the word "allergy"

## MATERIAL AND METHODS

One hundred and two children, who were followed by our allergy clinic team for more than 6 months, were included in our study. The allergic disease diagnoses for all diseases were made according to the guidelines [13–15]. The parents (either father or mother) of children who were admitted to our clinic between July and September 2017 were asked to fill out a questionnaire form developed by the authors. This form included questions about demographic characteristics and 20 multiple-choice questions about parents' opinions regarding allergic diseases and how they are affected by their children's allergic diseases. All parents agreed to fill out the questionnaire form.

## STATISTICAL ANALYSIS

Power analysis was performed to identify the number of children that would be included in the study group. Comparisons between groups were analysed using the  $\chi^2$  test, and group means were analysed with the *t*-test.  $P < 0.05$  was taken as a criterion for statistically significant differences.

## RESULTS

The average age of the patients was  $81 \pm 72$  (7–216) months, onset of the disease was  $38 \pm 35$  (1–180) months, and the average diagnosis time was  $43 \pm 41$  (1–204) months. The average follow-up period was  $36 \pm 35$  (7–144) months. Twenty-six percent of the mothers and 44% of the fathers graduated from a university. One-third of the families (30%) had low income. Atopy history of family members was 47%.

Thirty-seven percent of the patients had a food allergy, 23.5% had asthma, 11.8% had allergic rhinitis, 8.8% had a drug allergy, 6.9% had atopic dermatitis, and 11.8% had more than one allergic disease.

When the parents were asked what they understood from the word "allergy", 18% said sneezing, coryza, or nasal obstruction, 15% said itching or skin eruption, 14% said some substances affecting the habits of the body, 9% said a reaction of the body to a substance, and 44% said that all of the above can mean allergy (Figure 1).

Forty percent of the parents thought that their children had an allergic disease because their bodies were weak, and one third thought it was genetic. We asked them to grade the severity of the change in their QoL from 0 to 3 (Figure 2). When the allergic diseases are compared, parents who had a child with more than one allergic disease were found to be significantly more affected ( $p < 0.05$ ). There was no significant difference between

allergic diseases when they were compared to each other ( $p > 0.05$ ).

Most of the parents (73%) believed that their children's allergic disease will improve over time. Half of the parents (48%) disclosed their children's disease to their relatives but hesitated to tell others. Forty-two percent of the parents were mostly affected because of the symptoms of the disease whereas 32% were affected because of the difficulties of allergen avoidance. After experiencing the disease, 54% of the parents stated that the most important effect of the disease on their lives was that they had to pay more attention to avoiding contact with allergens. Furthermore, 21% of the parents started to fear that their other children or relatives may also develop allergies. Forty-eight percent of the parents experienced work absenteeism. Almost half (46%) of the parents expected their physician to completely cure their children's allergic disease.

## DISCUSSION

The prevalence of allergic diseases has increased among children in recent decades [16]. Allergic diseases are not only a health problem but also a social problem, negatively affecting individuals' QoL. In this study, we aimed to investigate how parents are affected by their children's allergies and what they know and think about allergic diseases. To this end, instead of using a standard QoL questionnaire, we prepared a questionnaire according to Turkish people's sociocultural features. The word "allergy" had a meaning parallel to their children's symptoms in 56% of parents. Forty percent of the parents thought that their children had an allergic disease because their bodies were weak, and one third thought it was genetic. The QoL of 94% of parents was affected by their children's disease, and 16% reported that it was highly affected. We ascertained that significantly the most affected parents were those whose children had multiple allergic diseases. This was the most important result of this study, showing us that these parents may need psychological support. Parents were mostly affected because of the symptoms of the disease and the difficulties of allergen avoidance. The most important effects of these diseases on parents' lives were "becoming more careful not to come across an allergen" and "developing the fear that other children or relatives may become allergic".

Ricci *et al.* studied the QoL of parents who had a child with atopic dermatitis, and found that 10 (23%) families had a normal, 10 (23%) had a slightly altered, 19 (43%) had a moderately altered, and 5 (11%) had a highly altered QoL as a result of their child's disease [9]. Birdi *et al.* showed that parents of children with food allergies had higher levels stress and depression [17]. Cano-Gar-

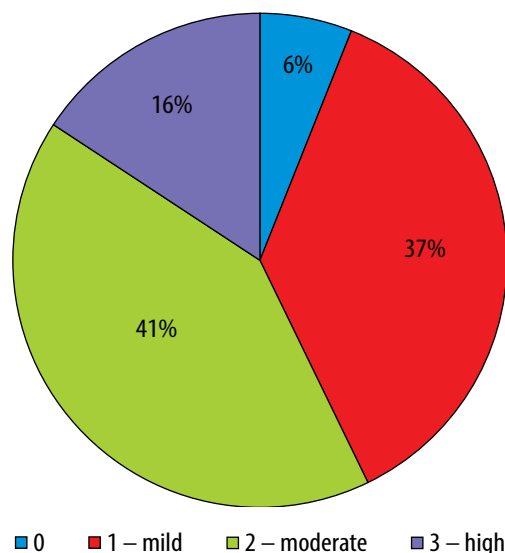


FIGURE 2. The grade of change in the parent's quality of life

cinuño *et al.* found that in asthma control, both "impairment" and "risk" in children were associated with the parents' QoL [18]. Lagercrantz *et al.* found that based on parental experience, having a child with severe allergic disease implied a need to constantly be on guard. In order to improve the care of children with severe allergy and their families, a more person- and family-centred approach was needed [19].

To the best of the authors' knowledge, this is the first study to investigate parent's QoL and understanding of all common allergic diseases of the Turkish population with a questionnaire form prepared according to Turkish people's socio-cultural characteristics.

There are some limitations of the study: we did not investigate the QoL of parents according to the severity of their children's allergic disease, and we did not use a standard and validated QoL questionnaire. However, our questionnaire form not only measured the QoL of parents but also examined the opinions and anxieties of parents about allergic diseases. This form was prepared according to the Turkish populations' socio-cultural characteristics, and we think that this is the strength of our study.

## CONCLUSIONS

Families thought that their children had an allergic disease because their bodies were weak. Parents lives were mostly affected because of their children's allergic disease. The most affected parents were those whose children had multiple allergic diseases. Health physicians who provide care to individuals with paediatric allergic diseases must consider guiding parents to early psychological support if they have children with multiple allergic diseases.

## CONFLICT OF INTEREST

The authors declare no conflict of interest.

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