
Bullying among pediatric patients with food allergy

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Background: There are reports of children and teens with food allergy being harassed because of their food allergy, yet no study to date has attempted to characterize these occurrences.

Objectives: To determine the presence and characteristics of bullying, teasing, or harassment of food-allergic patients owing to their food allergies.

Methods: Questionnaires were completed by food-allergic teens and adults and by parents of food-allergic children.

Results: A total of 353 surveys were completed. Because most food-allergic individuals were children, most surveys were completed by parents of food-allergic individuals. The ages of the food-allergic individuals were younger than 4 years (25.9%), 4 to 11 years (55.0%), 12 to 18 years (12.5%), 19 to 25 years (2.6%), and older than 25 years (4.0%). Including all age groups, 24% of respondents reported that the food-allergic individual had been bullied, teased, or harassed because of food allergy. Of those who were bullied, teased, or harassed, 86% reported multiple episodes. Eighty-two percent of episodes occurred at school, and 80% were perpetrated mainly by classmates. Twenty-one percent of those who were bullied, teased, or harassed reported the perpetrators to be teachers or school staff. Overall, 79% of those bullied, teased, or harassed attributed this solely to food allergy. Of those bullied, 57% described physical events, such as being touched by an allergen and having an allergen thrown or waved at them, and several reported intentional contamination of their food with allergen.

Conclusions: Bullying, teasing, and harassment of children with food allergy seems to be common, frequent, and repetitive. These actions pose emotional and physical risks that should be addressed in food allergy management.

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INTRODUCTION

Food allergy is increasingly common in children, with the most recent report by the Centers for Disease Control and Prevention estimating its prevalence to be 3.9% in children younger than 18 years in the United States, representing an increase of 18% from 1997 to 2007.¹ Peanut allergy reported in children in the United States has increased from 0.4% in 1997 to 1.4% in 2008.²

The physical effects of food-allergic reactions are well characterized; however, investigations concerning the psychosocial impact of living with a food allergy are few. Several studies^{3–7} to date have examined psychosocial and quality-of-life aspects of food allergy of pediatric and adolescent patients and their parents. These studies show that food allergy significantly affects daily quality of life and is associated with

psychological distress in the form of anxiety, depression, and stress in patients and their parents.⁸

An unexplored concern regarding distress and anxiety for children living with food allergies involves teasing and harassment or bullying. For example, there are reports of allergic patients being smeared or sprayed with the allergic food, leading to reactions.^{9,10} From these reports, it is clear that bullying, teasing, and harassment may pose a concern to food-allergic patients and their parents from a psychological and possibly a physical standpoint. To our knowledge, no study to date has assessed the scope of bullying regarding food allergy. In this study, we used a structured questionnaire to determine the characteristics of bullying, teasing, or harassment owing to food allergies. *Bullying* refers to a specific type of harassment or aggression that is intended to harm, that occurs repeatedly, and that takes place in a situation where there is an imbalance of power. The terms *tease* and *harass*, on the other hand, mean to annoy, make fun of, or torment. For the purposes of this questionnaire, the terms *bullied*, *teased*, and *harassed* were used interchangeably to elicit responses regarding this general type of maltreatment. The results suggest that this is a significant issue that requires attention to improve the safety and well-being of children with food allergies.

METHODS

A questionnaire was designed by a pediatric allergist who specializes in food allergy (S.H.S.) and lay persons experi-

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enced with food allergies from the Food Allergy & Anaphylaxis Network (FAAN) (C.W. and T.F.) with the assistance of an expert in the diagnosis and management of bullying (M.S.), based on established definitions of bullying in children and adolescents. The questionnaire consisted of 11 questions about demographics and 16 about bullying, teasing, and harassment. Each question used the maltreatment terms together as a group, for example, “Has the food-allergic individual ever been bullied, teased, or harassed because of food allergy?” The terms were grouped to avoid confusion about the intention of the survey to determine this general form of maltreatment. The questionnaire was distributed to all attendees of regional FAAN conferences in Tarrytown, New York, Rosemont, Illinois, and Baltimore, Maryland, in 2009. Accepted questionnaires were from teens and adults with food allergies, parents of children with food allergies, and non-family member caregivers of children with food allergies. Attendees who were not teens or adults with food allergy or parents or caregivers of children with food allergy were asked not to complete the questionnaire. Attendees did not have to be a member of the FAAN to attend the conferences. To ensure confidentiality, all the questionnaires were anonymous, and there were no identifying data on any returned questionnaire. The study was approved by the Mount Sinai institutional review board. If questions were left blank, they were not included in the analysis.

RESULTS

Of 606 attendees at all the conferences, 371 (61.2%) returned surveys. Of those responding, 18 were neither a food-allergic individual nor a caregiver of a child with food allergy, and, therefore, their surveys were not included in the final assessment, leaving 353 total surveys in the final analysis. Survey respondents identified themselves as parents of food-allergic individuals ($n = 324$), food-allergic individuals ($n = 54$), and non-family member caregivers of food-allergic individuals ($n = 17$). Respondents could identify themselves as more than 1 of these but answered the survey only for the most severely allergic individual in the family. Demographic information about the food-allergic individual is given in Table 1. Of 346 individuals who provided sex information, 211 (61.0%) were male and 135 (38.2%) were female. Of 351 individuals who provided age information, 91 (25.9%) were younger than 4 years, 193 (55.0%) were 4 to 11 years old, 44 (12.5%) were 12 to 18 years old, 9 (2.6%) were 19 to 25 years old, and 14 (4.0%) were older than 25 years. Participants choosing to answer questions regarding race and ethnicity were primarily white (331/348, 95.1%) and non-Hispanic (335/344, 97.4%).

Peanut represented the most common reported allergy, affecting 287 (81.3%) of the food-allergic individuals. Most had multiple food allergies (84.7%). These allergies were diagnosed by an allergist in 311 patients (88.1%), and 333 (94.3%) had experienced a reaction due to food in the past.

Overall, 85 respondents (24.1%) reported that the individual with food allergies had been bullied, teased, or harassed

Table 1. Demographic Characteristics of 353 Food-Allergic Individuals

	Individuals, No. (%)
Male sex ^a	211 (61.0)
Race ^b	
White	331 (95.1)
Asian	20 (5.7)
Black	8 (2.3)
Prefer not to answer	1 (0.3)
Ethnicity ^c	
Non-Hispanic	335 (97.4)
Hispanic	7 (2.0)
Age, y ^d	
<4	91 (25.9)
4–11	193 (55.0)
12–18	44 (12.5)
19–25	9 (2.6)
>25	14 (4.0)

^a Seven individuals left this question blank ($n = 346$).

^b Twelve individuals checked multiple races and five left blank ($n = 348$).

^c Two individuals checked both and 9 left blank ($n = 344$).

^d Two individuals left this question blank ($n = 351$).

because of their food allergy. After excluding children younger than 5 years, a group that is likely too young to have experienced any bullying, teasing, or harassment, the percentage that experienced bullying, teasing, or harassment increased to 35.2%. Of those who indicated they had been bullied, teased, or harassed, 73 (85.9%) had this done to them on more than 1 occasion. The bullying, teasing, or harassment commonly occurred in more than 1 location (47%), and the most common site of occurrence was at school (82.4%). Figure 1 displays data regarding the various perpetrators of the offenses, with most respondents reporting being bullied, teased, or harassed by classmates (79.8%). Of note, 18 individuals reported being bullied, teased, or harassed by a teacher or other school staff.

Reasons for maltreatment varied, with 67 individuals (78.8%) reporting being bullied, teased, or harassed simply because of the food allergy; the remainder felt that it was done because of a combination of having to carry or wear medications (autoinjectable epinephrine or antihistamines in the case of allergic reaction), having to be secluded in special groups (eg, having to sit at special tables during lunch or mealtimes), or having to receive special treatment.

Overall, nonphysical acts of bullying, teasing, or harassment were more common than were physical acts. The most common nonphysical act was verbal teasing or taunting, described for 55 (64.7%) of those who had been bullied, teased, or harassed (Fig 2), and the most common physical act was having the allergen waved in the face, described by 37 (43.5%) of those who had been bullied, teased, or harassed (Fig 3).

The consequences of bullying, teasing, or harassment included a multitude of reported symptoms. There were no instances of allergic reactions due to the acts. Of the 67 who

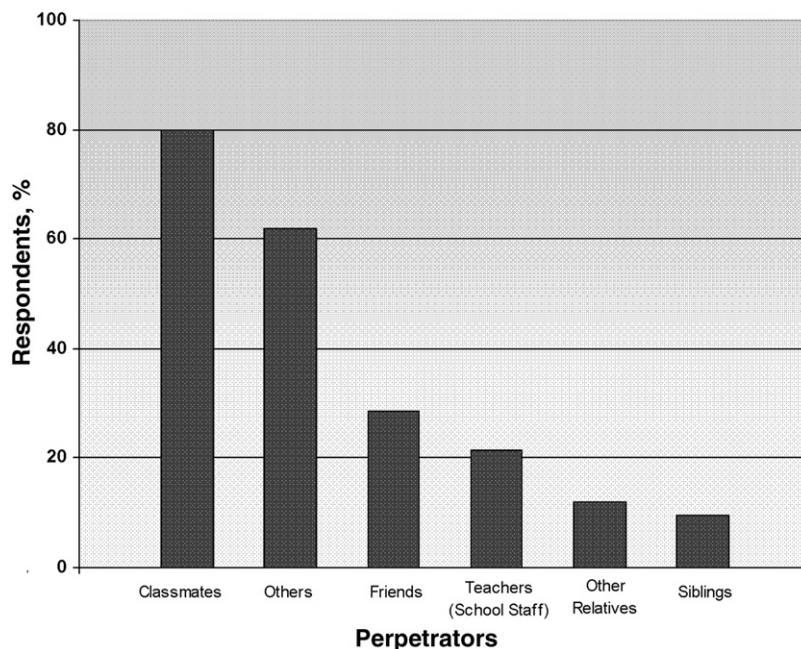


Figure 1. Reported perpetrators of bullying, teasing, or harassing events. Respondents could select more than 1 perpetrator.

reported consequences, most reported experiencing multiple emotional symptoms, with the most common being a feeling of sadness or depression in 44 (65.7%) and embarrassment or humiliation in 43 (64.2%) of those responding (Fig 4). Of all the respondents, 42.3% felt that the food-allergic individual would be bullied, teased, or harassed in the future owing to food allergies.

DISCUSSION

Several studies³⁻⁸ to date have shown that food allergy can have detrimental effects on patients beyond the physical harm

that may ensue from an allergic response if the food is ingested. Quality-of-life studies have shown that food allergy negatively affects the quality of life of patients and their caregivers and causes increased stress and anxiety in patients and their caregivers.⁸ However, none of these studies included questions regarding being teased, harassed, or bullied owing to a food allergy despite reports in the medical literature and in national media of harassment of food-allergic children.^{9,10} In other atopic conditions, namely, atopic dermatitis, there does not seem to be any substantial teasing or harassment owing to the disease.¹¹ However, one may hy-

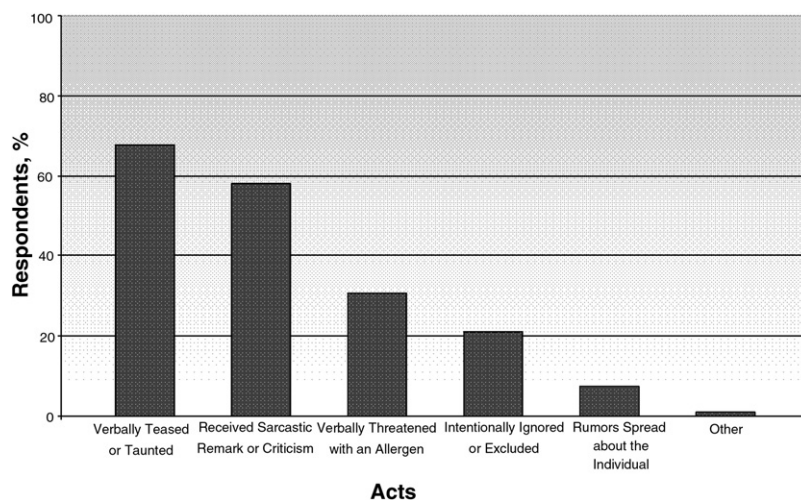


Figure 2. Nonphysical acts of bullying, teasing, or harassment. Respondents could select more than 1 act.

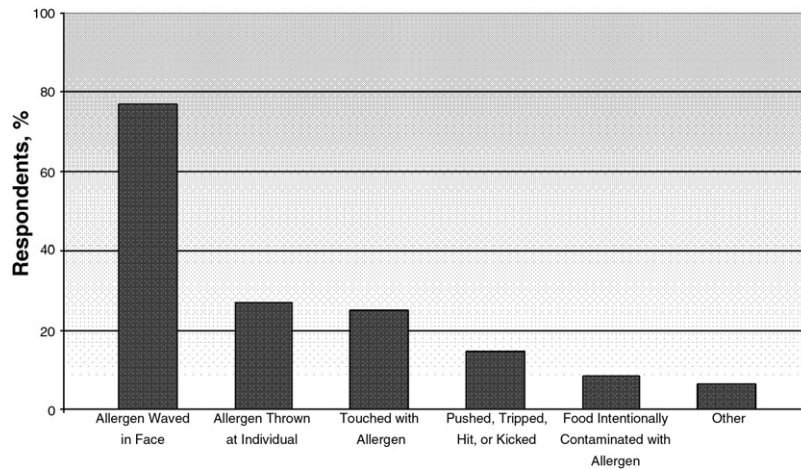


Figure 3. Physical acts of bullying, teasing, or harassment. Respondents could select more than 1 act.

pothesize that the nature of these 2 conditions is quite different due to the lifestyle modifications that are required with food allergy and, therefore, the isolation they may experience with food allergy. Patients not only have to be extremely diligent in monitoring what foods they eat but also have to carry medical equipment with them at all times, potentially leading to ostracism. To our knowledge, this is the first study to attempt to quantify and assess the nature of teasing, harassment, or bullying of food-allergic patients. We observed that teasing, harassment, or bullying of food-allergic individuals is relatively common, with nearly 1 in 4 respondents reporting that the food-allergic patient had been bullied, teased, or harassed because of the food allergy, and a higher percentage, 35%, when excluding children younger than 5 years. The incidents were not only common but were repetitive: 86% of those who had been bullied, teased, or harassed had it done to them on more than 1 occasion.

Perhaps most concerning is that many of these acts involved the allergen, with 12 of the respondents reporting that

they had been touched by the allergen. Although casual contact has been shown not to elicit systemic or respiratory reactions in patients with peanut allergy, it does pose a risk of local, cutaneous reactions.¹² None of the food-allergic individuals had experienced an allergic reaction due to the acts reported in this study, but the potential risk is self-evident. Also, 21.4% of those reporting that the individual had been bullied, teased, or harassed described the act being done by a teacher or other member of the school staff, further pointing to the need for education of school staff on the nature of food allergy.

Bullying, as mentioned previously herein, is a specific type of harassment or aggression that is intended to harm, that occurs repeatedly, and that happens in situations where there is an imbalance of power.¹³ We cannot entirely categorize the episodes as bullying compared with teasing or harassment. Although we do not know that the acts in these cases are intended for harm, those acts that involve the allergen certainly pose a risk of harm. We have shown that the acts occur

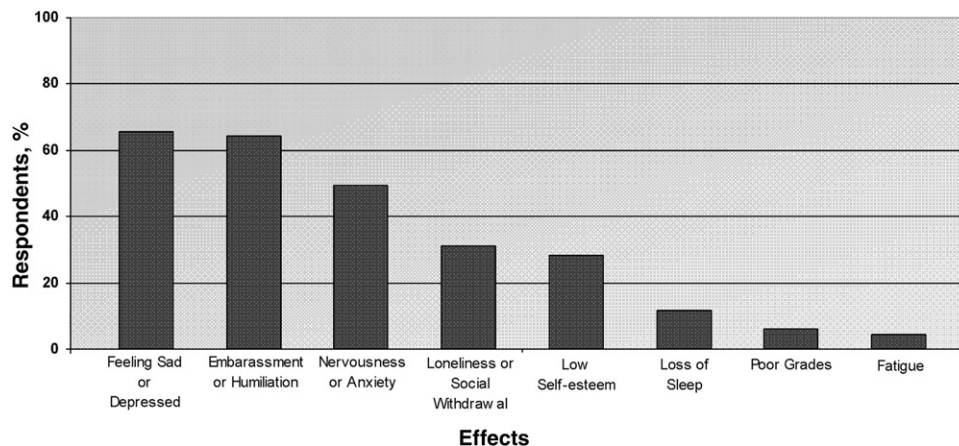


Figure 4. Reported effects of acts of bullying, teasing, or harassment. Respondents could select more than 1 effect.

repeatedly. Finally, we can assume that there is an inherent imbalance of power in that the perpetrators did not have food allergy and the victims did. It is impossible to say from these data the actual prevalence of bullying due to food allergy, and, in fact, determining the prevalence of bullying in the general population of children is difficult as well. In 2001, the National Institute of Child Health and Human Development attempted to assess the prevalence of bullying in youth in the United States. In that study,¹³ approximately 17% of children in grades 6 through 10 reported being bullied. Of interest, 50% of the respondents in the present study who were of the same age group as in this National Institutes of Health study reported being bullied, teased, or harassed. We are limited in comparing the present patient population with previous ones owing to the nature of this study (eg, selected cohort and surrogates providing answers, as described later herein). Despite these limitations and the fact that this study is not intended to determine prevalence, the observation of a rate more than double that of the previous report of bullying in the general population is concerning and warrants further investigation.

As mentioned previously herein, one limitation of this study is that respondents were attendees of regional meetings of the FAAN, a lay organization intended for support and education for families of children with food allergy. Therefore, the sample may be biased toward selecting families with children who have more severe or troubling food allergies or who are having concerns about management. Another limitation is that the caregiver (usually a parent) of the food-allergic individual was the respondent for children. This surrogacy bias could overreport or underreport bullying because often children do not report these episodes to parents.

CONCLUSION

To our knowledge, this is the first study to characterize bullying, teasing, or harassment of food-allergic individuals. We found that bullying, teasing, or harassment of food-allergic individuals is common, possibly double the rate noted in the general population, and perpetrators sometimes include adults. These actions pose a risk of psychological harm in all people, but unique to this population is that bullying, teasing, or harassment can also pose a direct physical threat when the allergen is involved. There are current intervention programs to reduce bullying in schools that have been shown to be effective,¹⁴ and the present results support the need to address such interventions toward children with

food allergies. Further investigation is needed in this area to fully elucidate the true extent of the problem and to evaluate interventions.

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