Clinical Management of Psychosocial Concerns Related to Food Allergy

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Overall Purpose/Goal: To provide excellent reviews on key aspects of allergic disease to those who research, treat, or manage allergic disease.

Target Audience: Physicians and researchers within the field of allergic disease.

Accreditation/Provider Statements and Credit Designation: The American Academy of Allergy, Asthma & Immunology (AAAAI) is accredited by the Accreditation Council for Continuing Medical Education (ACCME) to provide continuing medical education for physicians. The AAAAI designates these educational activities for a maximum of 1 *AMA PRA Category 1 Credit*™. Physicians should only claim credit commensurate with the extent of their participation in the activity.

List of Design Committee Members: Linda Herbert, PhD, Eyal Shemesh, MD, and Bruce Bender, PhD

Activity Objectives

Learning objectives:

1. To identify common psychosocial concerns among children with food allergy and their parents.

2. To identify ways to assess psychosocial concerns related to food allergy.

3. To understand how to treat children with food allergy and their parents who present with psychosocial concerns.

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Current estimates indicate that 4% to 8% of children in the United States are diagnosed with food allergy, and more than 40% of US children with food allergy experience severe allergic reactions. Families trying to avoid foods that may trigger an allergic reaction and ensure adequate treatment of allergic reactions that do occur face numerous challenges. The rise in the number of children diagnosed with food allergies underscores the importance of food allergy–related interventions to address elevated psychosocial concerns, such as parenting stress, anxiety, and worries about bullying. This review provides an overview of common psychosocial concerns among children with food allergy and their families across the developmental spectrum, and offers guidance to medical providers regarding the identification and treatment of food allergy–related psychosocial challenges. © 2016 American Academy of Allergy, Asthma & Immunology (J Allergy Clin Immunol Pract 2016;4:205-13)

Key words: *Food allergy; Children; Family; Mental health; Adjustment*

Food allergy is rapidly becoming one of the most common chronic conditions diagnosed during childhood.[1] Current estimates indicate that approximately 4% to 8% of children in the United States are diagnosed with food allergy,[2] a prevalence estimate that has grown by at least 18% in the past decade for general food allergies and 80% for peanut allergy.[3,4] Thus, a rising number of families are managing food allergies every year. Like many other chronic illnesses, food allergy requires daily management, which may affect multiple domains of child and

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Abbreviations used
CBT- cognitive-behavioral therapy
HRQOL- health-related quality of life

family psychosocial functioning and health-related quality of life (HRQOL). The rise in the number of children diagnosed with food allergies may lead to an increase in the number of children and families who may benefit from food allergy–related psychosocial interventions. The purpose of this review was to (1) provide an overview of common psychosocial concerns among children with food allergy and their families and (2) offer guidance to medical providers regarding the identification and treatment of food allergy–related psychosocial challenges.

FOOD ALLERGY MEDICAL CHARACTERISTICS

Food allergy is a chronic illness in which the immune system consistently exhibits an adverse reaction when it encounters a specific food protein.[5-7] Food-allergic reactions typically occur within minutes of ingestion, but may occur up to several hours later.[5,6] Allergic reactions range in severity. Symptoms may be oral (eg, mouth itching), dermatological (eg, hives), gastrointestinal (eg, emesis), respiratory (eg, throat swelling), or emotional (eg, feeling of "impending doom"), may manifest in isolation or combination, and may be uniphasic or biphasic.[5,7] Severe food-allergic reactions, such as anaphylaxis, can be life-threatening and even fatal,[8] and require immediate treatment with epinephrine.[6,7] Allergic reactions are common. As many as 40% of children with food allergy have experienced a severe allergic reaction, and a review of the National Electronic Injury Surveillance System in the United States reported that there were approximately 30,000 food-related anaphylactic events treated in emergency rooms and 2000 hospitalizations in 2007. The number of deaths in the same survey (150) was relatively small, highlighting that rapid management of allergic reactions is usually successful.[2,9]

Food allergy management

There is currently no cure for most cases of food allergy. Consequently, many children with food allergies and their parents must engage in 2 primary long-term food allergy management tasks: (1) avoid allergens to prevent allergic reactions and (2) carry epinephrine autoinjectors and rapidly identify and treat allergic reactions that do occur.[5-7] Food allergy management is time-consuming and affects multiple domains of life. Children with food allergy and their parents must regularly read food labels; prepare meals that are allergen-free; monitor cross-contact of utensils, cookware, and serving ware; carry autoinjectable epinephrine; educate restaurant staff, school personnel, and family/friends; plan/prepare for allergen avoidance during travel; and be knowledgeable about nonfood items that may contain allergens such as vaccines, medications, cosmetics, and toys (eg, modeling dough and finger paints).[5,10]

Avoiding allergens is challenging due to the prevalence of bulk-manufactured foods, mislabeled ingredients, cross-contact of safe foods with allergens via inadequate hand washing and/or shared utensils and cookware, and the inclusion of food in daily social activities at school, work, restaurants, and other public places.[7,11] Children and parents need to carry at least 2 epinephrine autoinjectors at all times, which may be cumbersome to carry and challenging to remember.[12] Children and parents may have difficulty recognizing the symptoms of anaphylaxis, lack confidence in their ability to administer epinephrine correctly, and/or fear administering epinephrine.[12-14] Food allergy management is further complicated by the general public's misconceptions about the differences between food allergy and food intolerance and the amount of food that can trigger an allergic reaction.[15] Thus, some parents may find food allergy management to be a discouraging uphill battle.

CHILD AND FAMILY ADJUSTMENT TO FOOD ALLERGY

Children with food allergy and their parents tend to report a constellation of psychosocial concerns that include parenting stress, anxiety, and worries about bullying. For many children and families, these concerns and the inherent challenges of food allergy management also have an impact on HRQOL. Psychological distress related to adjustment to chronic illness is well documented in the child health literature,[16,17] yet psychosocial issues among children with food allergy may at times be different from issues encountered by children with other chronic illnesses because most food allergy management tasks are preventive behaviors, not active medical care. Food allergy requires daily management via allergen avoidance and epinephrine carriage, yet symptoms are rarely present or visible to others except in the event of an allergic reaction. Daily anxiety and fear about the unpredictability of allergic reactions and the threat of a lethal consequence may be the primary contributors to psychosocial concerns. Overall, self-reported HRQOL in children with food allergy may be better than the HRQOL reported by children with other chronic illnesses because not all domains of HRQOL are affected by food allergy (ie, social activities may be more affected, but physical functioning may be less affected),[18-22] but preliminary research regarding how children with food allergy compare with other populations is conflicting. Some studies indicate that children with food allergy report poorer HRQOL than do the general population and children with type 1 diabetes, yet other studies indicate that children with food allergy report better HRQOL than do children with asthma, irritable bowel syndrome, and juvenile rheumatoid arthritis.[18,23]

For many families, the primary question that must be addressed is how to engage in the vigilance and preparedness required of a potentially life-threatening chronic illness while also managing anxiety and ensuring that children and families engage in developmentally appropriate activities.[11] Each family approaches this question differently, and a primary task of medical and mental health professionals is to help families achieve this balance.[24,25] Family adaptation to food allergy is likely affected by a constellation of parent and child factors (eg, family socioeconomic status, parent/child age, sex, coping resources, and trait anxiety) and illness parameters (eg, number of food allergies, duration of diagnosis, and history of previous allergic reactions including anaphylaxis, comorbid asthma, and/or eczema).[25] It is not clear to what extent psychosocial functioning depends on specific medical characteristics. For example, youth with atopic dermatitis, multiple food allergies, an epinephrine autoinjector prescription, and/or a history of anaphylaxis have been shown to have poorer HRQOL in some studies, but not in others.[26-31] A history of anaphylaxis may be associated with more parent anxiety and stress as well.[29] Specific medical procedures, such as oral