

Psychotherapeutic Treatment for Psychosocial Concerns Related to Food Allergy: Current Treatment Approaches and Unmet Needs



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Learning objectives:

1. To understand the role of psychology in management of allergic disease in children.
2. To identify the need for early recognition and treatment of sub-clinical and clinical anxiety.
3. To describe psychotherapeutic interventions that psychologists utilize to address psychosocial concerns related to food allergy.
4. To name additional psychosocial aspects of food allergy that warrant research and clinical intervention.

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Psychosocial concerns, such as anxiety and decreased quality of life, are common among patients with food allergy and their caregivers. There is evidence that childhood anxiety disorders are at the outset of a “cascade of psychopathology,” highlighting the importance of early recognition and treatment. Provision of psychological services is needed, beginning with a thorough assessment of food allergy–related quality of life, subjective perceptions of food allergy severity, and environmental factors. Implementation of patient-centered cognitive-behavioral, medical coping, and motivational interviewing strategies may

promote healthy food allergy management and adjustment. We present 2 cases, a mother of a young child with food allergy and a young boy preparing for oral immunotherapy treatment, who received psychological services for food allergy–related anxiety. For each, treatment resulted in decreased anxiety and improved food allergy management/oral immunotherapy treatment engagement. We also discuss unmet food allergy–related psychosocial needs, including the lack of food allergy–specific anxiety measures, psychosocial domains that warrant investigation (trauma, feeding concerns), development of

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*Abbreviations used**CBT- Cognitive behavioral therapy**EAI- Epinephrine autoinjector**FA- Food allergy**FAQL- Food allergy–related quality of life**FAQLQ- Food Allergy Quality of Life Questionnaires**OIT- Oral immunotherapy*

supportive interventions for patients engaging in allergen immunotherapy, and the lack of adequate mental health providers with food allergy expertise. © 2020 American Academy of Allergy, Asthma & Immunology (J Allergy Clin Immunol Pract 2021;9:101-8)

Key words: Food allergy; Quality of life; Assessment; Intervention

Pediatric food allergy (FA) is a growing public health concern, with 8% of children in the United States affected.^{3,4} Severe allergic reactions, such as anaphylaxis, can be life-threatening or fatal, yet there is no reliable method to predict the severity of future allergic reactions.⁵ Although new treatments for FA are being developed, and an oral immunotherapy (OIT) treatment for peanut allergy was approved by the Food and Drug Administration in January 2020,^{6,7} treatment for the vast majority of patients is characterized by allergen avoidance and emergency management preparation.⁸ Thus, FA is largely managed by daily evaluation of food safety and vigilance for accidental allergen exposure and allergic reactions, which impacts patients' and caregivers' FA-related quality of life (FAQL) and overall psychosocial functioning. The purpose of this grand rounds review is to (1) illustrate the use of psychotherapeutic treatment for mental health concerns related to FA in the context of FA management via standard allergen avoidance and novel treatments such as OIT and (2) discuss current unmet psychosocial needs related to FA management.

BACKGROUND

Many children are diagnosed with FA during early childhood, so caregivers bear the brunt of FA management.⁹ Allergen avoidance and emergency management requires caregivers to have the behavioral skills to manage allergen avoidance and allergic reactions. They must also have the emotional resources to cope with the many challenges that arise from these daily tasks and the social limitations that FA presents. Many patients with FA and their caregivers experience decreased FAQL related to these daily tasks and stress comparable to or greater than other pediatric chronic illness populations.^{10,11} FA management requires reliance on the public to provide accurate information about food ingredients and trust in other caregivers to recognize and treat allergic reactions, yet reliance on others is fraught with uncertainty.^{9,12-16} Anxiety is common and expected among patients and caregivers because of fear about allergen exposure, allergic reactions, and fatal anaphylaxis, and higher anxiety is related to poor FAQL.^{11,17-20} In addition, specific procedures such as oral food challenges and skin prick testing and new treatments such as food immunotherapy can contribute to patient and caregiver anxiety, which is also expected given the nature of these procedures and treatments.²¹⁻²³

Chong and Turner have adapted a model of health anxiety²⁴ that proposes that FA-specific anxiety is driven by the perception of the likelihood of an allergic reaction and its severity, as well as by the perception of the individual's ability to cope with the allergic reaction and treat it successfully.²⁵ For some patients and caregivers, this anxiety is overwhelming and acts as a barrier to successful adaptation to FA management in daily life; for others, low levels of FA-specific anxiety may result in an inappropriate lack of vigilance.¹¹ Ideally, patients and caregivers achieve "balanced integration," or an equilibrium in which they achieve an appropriate level of anxiety/vigilance that promotes appropriate FA management behaviors while not deterring engagement in developmentally and socially appropriate activities.²⁶ Treatment for FA-related psychosocial concerns from a mental health professional may help families achieve balanced integration.^{27,28} Psychoeducation offered to patients and family members teaches problem-solving, coping, and communication skills and provides education and resources in an empathetic and supportive environment. Cognitive behavioral therapy (CBT) often forms part of an intervention as well. There is a growing evidence base for the effectiveness of psychological interventions in pediatric populations,²⁹ suggesting that responding both to psychological and physical needs can not only improve outcomes for children and their families, but also reduce overall costs.^{30,31}

ASSESSMENT OF FOOD ALLERGY–RELATED PSYCHOSOCIAL FUNCTIONING

FAQL should be of paramount importance when making treatment decisions because currently there is no reliable way to stratify risk for anaphylaxis and data regarding specific interventions to reduce said risk is sparse.²² In FA, the risk is ever present but the "when," "what," "why," and "how much" lead to uncertainty, fear, and anxiety. Research on FAQL, using Food Allergy Quality of Life Questionnaires (FAQLQ), has provided a patient-centered perspective and innovative findings with applications for research, treatment, and practice. The measures consist of multidimensional items and subdomains, together with questions on demographics, symptoms, reaction history, diagnosis, prescription, and use of an epinephrine autoinjector (EAI).³² The Food Allergy Independent Measure, used in concert with FAQLQ, provides a measure of subjective perception of severity/chance of adverse outcome. The FAQLQ series of age-appropriate and disease-specific measures have been used in general and treatment settings, cross-sectionally, and longitudinally.³³ A minimal clinically important difference score of 0.45/0.5 has been reported for the questionnaires. The most significant impact on FAQLQ, across age groups, is the persistent fear of an adverse reaction, and the restrictions, vigilance, and planning that are necessary to minimize that chance. Environmental factors (clinician and general public awareness, and industry policy and practices, including precautionary allergen labeling) also play an important and dynamic role in impacting FAQL.³⁴⁻³⁶ Furthermore, disparities exist in the economic impact of FA based on socioeconomic status, and anxiety may relate to the medical and nonmedical costs borne by families.³⁷ Because of the wide array of factors that may amplify the impact of FA and provide a barrier to self-management, a thorough assessment of FAQL, subjective perceptions of FA severity, and environmental factors is necessary when initiating treatment with patients with FA and caregivers.

Glossary

Cognitive behavioral therapy (CBT) - A psychosocial intervention that aims to improve mental health. It is a short-term, goal-oriented psychotherapy treatment that takes a hands-on, practical approach to problem-solving. CBT works by changing people's attitudes and their behavior by focusing on the thoughts, images, beliefs, and attitudes that are held (a person's cognitive processes) and how these processes relate to the way a person behaves, as a way of dealing with emotional problems.¹

Psychoeducation - An intervention with systematic, structured, and didactic knowledge transfer for an illness and its treatment, integrating emotional and motivational aspects to enable patients to cope with the illness and to improve its treatment adherence and efficacy.²

Motivational interviewing - A collaborative, patient-centered method of guiding to elicit and strengthen motivation for change.

Patient-centered care: Providing care that is respectful of, and responsive to, individual patient preferences, needs, and values, and ensuring that patient values guide all clinical decisions.

PSYCHOTHERAPEUTIC INTERVENTION APPROACHES

The extant literature regarding evidence-based psychotherapeutic interventions for FA is sparse. Existing behavioral interventions target caregivers,^{27,38} are limited to a one-time group/activity,^{39,40} and/or focus on one challenging aspect of FA rather than comprehensive FA education and skill building.⁴¹⁻⁴³ In a recent systematic review of interventions that targeted well-being and support for caregivers of children with FA, the authors concluded that cognitive-behavioral strategies may benefit some mothers, but that few studies of these interventions were methodologically robust.⁴⁴ In another recently published review of the effectiveness of self-management interventions for adolescents and young adults with allergic conditions, no interventions for patients with an allergic condition other than asthma met criteria for inclusion.⁴⁵

Despite these limitations, there is a strong evidence base for cognitive-behavioral therapy for anxiety disorders^{46,47} and preliminary evidence of the benefit of cognitive-behavioral intervention strategies for FA management. Cognitive-behavioral treatment can provide families with better education about the risks of FA, allowing them to make more accurate risk assessments, and develop skills that improve self-efficacy for allergen avoidance, emergency treatment, and anxiety management.⁴⁸ In one report, cognitive-behavioral therapy was shown to be an effective treatment modality for the parents of children with FA in individual therapy. Anxiety, depression, and worry were significantly reduced and FAQL was improved from baseline to 12 weeks in a group of mothers who received cognitive-behavioral therapy; the control group's scores remained stable.²⁷ In another study that used a modified version of an exposure hierarchy, both education and education with a behavioral intervention of touching an allergen resulted in a statistically significant decrease in FA-related worry; caregivers in both arms had improvement in FAQL scores 1 month after the visit as well.⁴² The benefits of simple behavioral strategies on

patients' and caregivers' comfort with and self-efficacy for treatment of allergic reactions have also been demonstrated; in one, an EAI self-injection procedure with an empty syringe in an allergy clinic setting improved adolescents' and parents' comfort level with self-injection,⁴¹ and in another, supervised EAI administration during food challenges increased confidence in recognition of anaphylaxis and knowledge of their use.⁴⁹ Thus, use of evidence-based cognitive-behavioral treatment for anxiety disorders, with modifications for the unique aspects of FA management and associated psychosocial functioning, may be warranted. Finally, pharmacotherapy for anxiety is recommended in combination with CBT for patients with severe anxiety disorders.⁵⁰ Although not a focus of this paper, as neither case outlined in this report required pharmacotherapy, patients with FA and their parents may benefit from a psychiatry referral in the event that symptoms of anxiety do not respond to psychotherapy or are significant enough to warrant a combined psychotherapy/pharmacotherapy treatment option.

CASE 1: TF, THE MOTHER OF A 2-YEAR-OLD GIRL

Mothers of children with FA frequently present with anxiety about FA management and treatment of allergic reactions. This case provides an overview of how brief cognitive-behavioral therapy can improve maternal FA self-efficacy and FAQL.

Assessment

TF, the mother of a 2-year-old girl, RF, with peanut and tree nut allergies, was referred for psychology consultation by RF's allergist due to her mother's FA anxiety. TF reported that when her daughter was first diagnosed with FA, she experienced anxiety each time that she contemplated attending a social event and prepared for it, but she reported that her anxiety was "manageable" and she still attended social gatherings with safe foods. However, she experienced an increase in anxiety after RF experienced anaphylaxis and was treated at an emergency department, stating that she thought about the possibility of an allergic reaction each time she considered giving RF a new food and every day when she dropped her off at day care. Symptoms included increased heart rate, racing thoughts, and difficulty sleeping. As a result of her anxiety, she had stopped giving RF new foods altogether. RF's allergist noted that TF reported a significant change in the frequency of her anxiety (ie, from specific, occasional occurrences to daily anxiety) and the way that anxiety affected her behavior (ie, attending social gatherings vs avoiding new foods), which prompted the allergist to refer TF for psychological services.

RF was diagnosed with eczema early in infancy and with peanut and tree nut allergies when she was 10 months old. RF lived with her married mother and father who were employed outside the home. She began attending a peanut/tree nut-free day care at 4 months of age; all food was provided by the day care. RF had experienced 3 allergic reactions since diagnosis, all while eating at home under parental supervision; 2 were treated with antihistamines and the third was treated in the emergency department with epinephrine. TF reported anxiety about her ability to recognize allergic reactions, know when to treat them with epinephrine, and provide treatment effectively. She avoided situations, including new food introduction, and did not trust caregivers other than her husband. TF denied diagnosis of an anxiety disorder but had experienced anxiety throughout her life. She scored a 5.2 on the FAQLQ-PF, with the greatest impact

noted in food anxiety and emotional impact. The psychologist recommended brief psychoeducation and cognitive-behavioral therapy with the goals of increasing TF's FA knowledge, improving her FA self-efficacy, and equipping her with anxiety management strategies. Additional goals included expanding RF's diet range and the number of trusted caregivers.

Psychotherapeutic intervention

Treatment included 6 sessions during which psychoeducation and a cognitive-behavioral orientation were used. RF's allergist was consulted as needed. Treatment began with psychoeducation, which is an effective method that has been used in the treatment of mental health disorders to empower families to manage and cope with illness by providing them with key information about the illness, common emotional responses, and ways to cope with them.⁵¹ Psychoeducation may be used with patients with FA and their parents if they experience significant anxiety as well. For TF, topics of psychoeducation included the immune system, FAs, allergic reactions, and EAI. An FA action plan was developed to keep at home and give to other caregivers. The psychologist also provided education about ways to develop RF's FA knowledge in a developmentally appropriate way, such as introducing specific FA language (eg, "safe food"). Subsequently, treatment used cognitive-behavioral techniques to focus on FA anxiety management and the attainment of specific food and social goals: introducing foods that RF's allergist believed were safe and scheduling a time for another caregiver to care for RF. Similar to the protocol use by Weinberger et al,⁴² a modified exposure hierarchy was developed to help TF progress through feared situations, starting with food introductions that were the least anxiety provoking and introducing other caregivers with maternal supervision. At the conclusion of therapy, TF reported increased FA knowledge, FA self-efficacy, and improved FAQL. RF had increased diet variety and had been cared for by a grandparent independently.

CASE 2: JD, A 7-YEAR-OLD BOY

Although adolescents and young adults are the more usual focus for support in self-management of FA, it is also important for young children to be active participants in management. Early onset anxiety disorders (<13 years of age), as in this case study, have a tendency to follow a chronic course. It is important to recognize "red flags" and to refer if appropriate. Screening and measurement tools, such as the examples given here, can be helpful in this regard. Even parents/patients who do not experience debilitating distress may benefit from a consultation session in which they learn how to promote FA management and adjustment in a developmentally appropriate way for preventative care. Case study 2 also provides an illustration for how allergy immunotherapy can be a challenge for younger children, particularly in those who have existing anxiety about FA.

Assessment

JD was a 7-year-old boy referred to psychological services for anxiety related to FA management. He was also due to start OIT in 8 weeks, and there were concerns that he may not be suitable for this type of treatment.

JD lived with his mother, who had been divorced for 10 months, and had 1 younger sister (4 years old) who did not have FA. JD was formally diagnosed by an allergist with cow's milk allergy at 10 months and peanut allergy at 2 years. He had no

comorbidities. He attended elementary school, which underwent training on FA by a community nurse, and an EAI was available at school. He took a pre-prepared lunch to school. JD had 5 allergic reactions since diagnosis. Two related to his milk allergy were mild and treated at home with antihistamine. The most recent 3 were due to peanut allergy and 2 of these required emergency department care.

JD presented as an anxious child who was very dependent on his mother. He thought about food and allergic reactions frequently and was afraid to try new foods, even when his mother explained that they were "safe." If he felt worried about a food, he experienced a choking sensation that he interpreted as the beginning of a reaction and became very distressed. JD explained that he felt happier when he was at home with his family and also preferred his friends to come to his home, rather than go to theirs. JD used to attend "scouts" but is now refusing to go. Avoidance behavior and/or change in behavior, and excessive worrying (over and above that which is reasonably advised for safety) may be seen as "red flags," indicating a potential problem or actual disorder that can have long-term consequences for the child. His mother was also worried that OIT would worsen his anxiety because treatment required him to regularly ingest peanut-containing medication.

Two measures were used by the psychologist to aid in her decision-making, the first of which was disease specific and the second was a generic anxiety screening tool for children. JD scored 4.0 on the FAQLQ-PF (highest subscale score on "Food Anxiety"), which was above the norm for his age group. He also scored 48 on the Screen for Child Anxiety Related Emotional Disorders, which is above the cutoff score⁴⁶ for "high-anxious" (top-15%).

Psychotherapeutic intervention

Therapy consisted of 4 initial sessions before the start of OIT and 4 sessions during treatment. After this, the case would be reviewed, and further sessions would be planned, as appropriate. In the pre-OIT sessions, the psychologist engaged the patient and his mother (together and separately) in guided problem-solving to find effective patient-led approaches to reduce fears associated with eating unfamiliar foods and to promote a feeling of safety and enjoyment in eating. Behavior modification and adherence promotion strategies were used to reduce fears and stress in relation to FA but also in relation to other factors (outside of FA) that may be contributing to the patient's distress, such as the divorce. With regard to the fear associated with the taking of medication, JD was engaged in swallowing therapy using powders mixed in vehicles he would be using for OIT to maximize success. A calming activity was identified that JD could look forward to after taking the medication. A sticker chart was developed with the help of JD for medication taking and other target behaviors. These strategies also had the goal of increasing self-efficacy (eg, providing JD with decisional control) around FA management. Therapy continued when OIT treatment started, with motivational interviewing (where the goal was for the motivation to arise intrinsically from within the child, not from the parent or other adult), and with the use of CBT techniques, to ensure sustained change. It is important to note that, although JD and the family elected to pursue OIT, a potential outcome from JD's therapy may have been the decision that allergen avoidance was the best FA treatment option for him and his family. If that was the case, then therapy would have continued

to support the family in the transition from OIT to allergen avoidance.

CASE SUMMARIES

The 2 case examples show that there are specific times when patients and their parents may benefit from more than standard allergy education and a sympathetic allergist's ear, such as when families need psychoeducation, assistance coping with FA anxiety, assistance problem-solving new treatments, and/or when they meet criteria for a mental health disorder.²⁸ As shown in case 1, allergists can use the frequency and intensity of anxiety and the presence of avoidance behaviors as methods of determining if a referral is warranted. As in case 2, patients with pre-existing FA anxiety are likely to experience challenges related to new treatment and may benefit from psychotherapeutic treatments that help them cope with and be successful with it, with the added benefit of addressing nascent anxiety problems that may have long-term adverse effects on health and well-being.

The case examples also show that psychologists can provide comprehensive interventions for patients with FA through the use of adherence and self-management promotion, CBT, behavioral therapy, medical coping, and motivational interviewing. A combination of interventions is often the most effective, and approaches should be tailored for each patient in the context of their family, school, and community exigencies. In both examples, the patients were the key participant in developing treatment goals and identifying barriers and facilitators to treatment success, with families being an active and vital part of the treatment.

As demonstrated in case 1, many times a solid grounding in FA education is sufficient to reduce initial FA anxiety because it empowers parents and patients to know how to manage their FA more effectively and when and how to treat allergic reactions. Equipping families with this information improves overall FA self-efficacy and may reduce the trauma related to allergic reactions and increase families' perceptions of their ability to engage in appropriate school and social activities. Beyond FA education, teaching anxiety management skills and providing a scaffolding approach to engender confidence in using these skills in real-world settings may further reduce anxiety and improve FAQL.

Medication can only be effective if taken correctly. Non-adherence can negatively impact the results of clinical trials and patient outcomes. As shown in case 2, patient-related factors contribute to issues related to potential or existing nonadherence and may include forgetting to take medication; poor treatment-related knowledge; psychological factors such as anxiety and depression; intentional nonadherence due to side effects or worries about specific medication; environmental factors such as parent separation or relational difficulties; and developmental factors (eg, transitioning from childhood to adolescence and adolescence to young adulthood). Similar factors are related to the noncarriage and/or use of EAI where needed.

DISCUSSION AND UNMET NEEDS

Pediatric psychologists are increasingly involved as key members of interdisciplinary research and clinical care teams.⁵² Psychological issues are addressed in a developmental framework and emphasize the dynamic relationships that exist between children, their families, and the health delivery system as a

whole.⁵³ The inclusion of psychologists as key members of interdisciplinary collaborations is not only beneficial for patients and families but also for other health care professionals. Psychologists can input evidence-based strategies and services to interdisciplinary teams. In addition, they play a major role in the promotion of healthy behavior, the implementation of therapeutic and brief medical visit interventions, outpatient follow-up services for patients in need of more intensive services (that cannot be delivered during routine medical visits), and long-term psychological treatment in tandem with medical care.⁵⁴ Interdisciplinary collaborative models of clinical care can range from integrated psychology models within medical subspecialty clinics to models that use psychologists for consultation/liaison services only. Integrated models allow for continuity of care from diagnosis onward and can also enhance the transition process from pediatric to adult care.⁵⁵⁻⁵⁸

Several emerging psychosocial areas related to FA warrant discussion. First, some anxiety around potential reactions is likely to be adaptive for children with FA, as it promotes vigilance to allergens in the environment and emergency preparation⁵⁹; yet persistent anxiety stemming from a threatening event(s) and overestimation of risk may have negative effects on quality of life.⁶⁰⁻⁶⁴ Addressing anxiety, fears, and worries at an early stage in a constructive way that encourages the achievement of "balanced integration" of FA management into daily life is likely to be beneficial in terms of improved quality of life and confidence in FA management.⁵⁹ However, as reported in a recent paper by Soller et al,²⁰ assessment of general symptoms of anxiety is unlikely to fully identify the patients and caregivers who experience FA anxiety. New measures of FA anxiety are needed to ensure that medical and mental health professionals assess the nuances of FA anxiety that differentiate it from more generalized anxiety—for example, risk estimation of fatal anaphylaxis and the adaptive nature of some degree of anxiety to be adequately vigilant.¹¹ This phenomenon is seen in other chronic illness populations, such as type 1 diabetes, in which fear of hypoglycemia has been shown to be related to parenting stress, quality of life, self-efficacy, and diabetes self-management; a validated measure exists to help clinicians understand patients' experiences and optimize care.⁶⁵⁻⁶⁷ In FA, the ability to distinguish FA-specific anxiety from anxiety stemming from life events not related to FA can help to optimize support and to identify appropriate, suitable, and specific approaches that will benefit patients.

In addition, emerging research indicates that postanaphylactic acute and/or traumatic stress is commonly experienced by patients and caregivers.^{62,63,68} Measures are needed to allow for reliable assessment of these psychological conditions to capture all aspects of the FA experience, including predictors and correlates of postanaphylactic acute/traumatic stress, leading to targeted intervention development. Furthermore, a small body of literature indicates that children with FA and/or eosinophilic esophagitis may exhibit symptoms of feeding disorders, such as Avoidant Restrictive Food Intake Disorder.⁶⁹ Indeed, in a 2015 study of children who presented to a feeding program, there was a higher proportion of children with FA in the feeding program (40%) than in the general population and in another caregivers of young children with FA were more likely to report mealtime behavioral concerns than parents of children without FA.^{70,71}

It is also crucially important to begin developing assessment tools and evidence-based psychosocial services for children who participate in new FA treatments, such as oral and epicutaneous

immunotherapy.³⁶ Preliminary research regarding parents' perceptions of treatment suggests an improvement in FAQL related to these treatments, yet development of food aversions and anxiety about daily doses may occur.^{21,72} One ground-breaking study assessed the use of cognitive strategies to help patients cope with the side effects of OIT and noted a positive impact on both their ability to cope with the side effects and complete treatment if side effects were re-framed as positive signs that their immune systems were changing.⁷³ Development of evidence-based patient-centered outcome assessments is needed. In addition, new FA treatments are not a panacea and are not right for every family; thus, interventions that assist families in making treatment decisions, either to continue allergen avoidance or pursue a novel treatment, and then support them in carrying out these decisions need to be developed. Similar decision-making tools exist for other pediatric chronic illnesses, such as asthma,⁷⁴ and could be a model for families who are making decisions about novel treatments.

Finally, the need for psychosocial support is largely unmet as there is an insufficient number of mental health clinicians equipped to work with FA families. In one study, FA stakeholders identified psychosocial concerns related to FA as an under-addressed research area and thus named it one of 4 research priority areas.⁷⁵ Research by Food Allergy Research & Education about their Food Allergy Centers of Excellence in the United States found that more than 90% of the centers routinely observed child and parent anxiety related to FA, with other psychosocial concerns observed as well such as bullying, unnecessarily restricted diets, and adherence concerns.⁷⁶ However, access to mental health professionals in FA clinics and/or community providers who have FA knowledge may be sparse.^{76,77} Access to mental health services to address psychosocial concerns is likely to be crucial to supporting families in successful FA management and achievement of "balanced integration." This is even more remarkable in an era in which new FA treatments are available and in development, as there is a great need to support families in their decision-making about these treatments and participation in them. One way to address this concern is to expand patients' access to providers who have FA expertise through telehealth services. During the COVID-19 pandemic, the use of telehealth has received broad support from mental health organizations as a means of ensuring continuity of patient care, but also expanding patients' access to mental health services⁷⁸; it is unlikely that mental health practices will ever fully revert to in-person only offices. Implementation of a national license for psychologists is also underway (PsyPact), which would increase access by eliminating the need for licensure in individual states. Thirteen states have passed PsyPact legislation thus far.⁷⁹ Another way to address this concern is to expand the number of mental health professionals with FA expertise through the development of FA educational training. Although this type of training is not yet available, at least 1 patient advocacy organization has a project in development. Finally, training in supporting FAQL (and related issues) for clinicians, with reference materials (eg, a toolbox), may be helpful in the absence of resources for mental health services and/or as a complementary measure.

CONCLUSION

There is evidence that childhood anxiety disorders are at the outset of a "cascade of psychopathology"; therefore, there is a need for early recognition and treatment. In addition to adverse

long-term psychopathological outcomes, it also causes impairment in functioning and hampers general health, resulting in financial, interpersonal, and educational difficulties. Pediatric psychologists have a key role in health services for allergic disease that can provide measurable benefits for patients and families and other health care professionals. Improved psychological functioning and adaptive coping can result in better health and mental well-being for patients and families in both the short and long term. Many life-long patterns of behavior are established during childhood and adolescence. It is clear that an understanding of the pathways—how they develop, maintain, and remit—requires consideration through the use of longitudinal studies to expand our knowledge. We provided 2 case examples illustrating strategies used by pediatric psychologists in treating children with psychosocial challenges relating to their FA. A personalized approach is taken for each patient entailing the use of a variety of techniques and principles, and with the active involvement of caregivers. Although progress has been made relating the increasing use of patient-reported outcome measures in research and trials, there remain unmet FA-related psychosocial needs, including the lack of FA-specific anxiety measures, psychosocial domains that warrant investigation (trauma, feeding concerns), development of supportive interventions for patients engaging in allergen immunotherapy, and the lack of adequate mental health providers with FA expertise.

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Psychotherapeutic Treatment for Psychosocial Concerns Related to Food Allergy: Current Treatment Approaches and Unmet Needs

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Learning objectives:

1. To understand the role of psychology in management of allergic disease in children.
2. To identify the need for early recognition and treatment of subclinical and clinical anxiety.
3. To describe psychotherapeutic interventions that psychologists use to address psychosocial concerns related to food allergy.
4. To name additional psychosocial aspects of food allergy that warrant research and clinical intervention.

CME items

Question 1. According to Chong and Turner, food allergy—specific anxiety is mainly driven by the perception of the likelihood of an allergic reaction and its severity, as well as which of the following?

- A. The number of allergic reactions the patient has experienced in the past
- B. The perception of the individual's ability to cope with the allergic reaction and treat it successfully
- C. The results of their allergen-specific bloodwork
- D. The way their allergist explains food allergy

Question 2. Why is using food allergy—specific quality of life questionnaires important when making treatment decisions?

- A. There is no reliable way to stratify risk for anaphylaxis.
- B. Specific interventions to reduce fatality risk are largely not available.
- C. Their use enables the patient perspective to be included.
- D. They are required by the US Food and Drug Administration (FDA).

Question 3. Which of the following is the purpose of motivational interviewing techniques during psychotherapy with a patient undergoing oral immunotherapy?

- A. Help the patient see why oral immunotherapy is beneficial
- B. Establish concrete goals for the patient to attain during oral immunotherapy
- C. Encourage motivation for participation to arise intrinsically from the patient as opposed to the parent or clinician
- D. Increase self-efficacy for food allergy and oral immunotherapy management

Question 4. Emerging evidence indicates that which of the following psychological concerns is experienced by patients with food allergy and their caregivers?

- A. Traumatic stress
- B. Depression
- C. Anorexia nervosa
- D. Obsessive compulsive disorder