NORTHERN ILLINOIS UNIVERSITY

Childhood Food Allergies in Association with Psychosocial Development

A Capstone Submitted to the

University Honors Program

In Partial Fulfillment of the

Requirements of the Baccalaureate Degree

With Honors

Department Of

College of Health and Human Sciences

By

Haley Pucel

DeKalb, Illinois

May 2020
University Honors Program
Capstone Approval Page

Capstone Title (print or type)
Childhood Food Allergies in Association with Psychosocial Development

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Student Name (print or type) Haley Pucel ________________________________

Faculty Supervisor (print or type) Dr. Sheila Barrett _______________________

Faculty Approval Signature ____________________

Department of (print or type) College of Health and Human Sciences ________

Date of Approval (print or type) 12/2/19 _________________________________

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NUTR 309 Class 12/2/19 ________________________________

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HONORS CAPSTONE ABSTRACT

A pediatric food allergy is a chronic and potentially life-threatening anaphylactic condition affecting a child’s psychosocial health. Food allergies can impede upon many areas of a child’s life including the way they are parented, how they interact at daycare or school, and how they develop independence. The purpose of this literature review is to examine the stresses that surround childhood food allergies in order to keep a child in a safe, allergen free environment.

The scholarly journal articles used for this review, that were published within the last ten years, were found in the article databases CINAHL Complete, Nutrition Abstracts and Reviews, and Web of Science, and the key search terms used were childhood food allergies, psychosocial development, overprotective parents, and food allergy support. From analyzing the research, the protective factors of resilience and building autonomy reveal to be helpful tools in combatting the negative psychosocial factors that can be associated with childhood food allergies. Support systems for the child and parents can help to take control and manage the food allergy while overcoming physical, mental, and social barriers. A pamphlet composed of useful information for parents about the psychosocial concerns of childhood food allergies is included at the end of the paper.
Food allergies present a complex stress on life.\textsuperscript{1} Since the way our bodies are fueled is through meals, it is those very meal times that can trigger a rapid, life-threatening allergic reaction.\textsuperscript{1} The food allergies most commonly found in children are cow’s milk, peanuts, egg, and tree nuts.\textsuperscript{2} Sometimes milk, egg, wheat, and soy allergies can be resolved in childhood, but peanut, tree nuts, fish, and shellfish allergies tend to be lifelong.\textsuperscript{2} Food allergies affect 8% of pediatric patients in the United States, and among those patients 38.7% have had severe food-related reactions.\textsuperscript{2} When the best known way to manage food allergies is to avoid them, accidental exposure or ingestion can still occur.\textsuperscript{1} It requires many skills to avoid allergens such as detailed attention to food surroundings, knowledge of ingredients and food labels, and the ability to recognize allergic reaction symptoms.\textsuperscript{1} These are all skills that a child with a food allergy would not be able to manage on their own.\textsuperscript{1} A child’s dependent nature on a parent creates stress around the situation, which may put the parent or child in a situation that may cause anxiety or other psychological distraught.\textsuperscript{1} The type of parenting, the development of the child, and the situations that the child is in, all contribute to whether they feel any type of mental strain toward their food allergy.\textsuperscript{1,3,4,5} The stress that may develop in the child can be reduced by identifying the barriers the child faces and replacing them with positive protective factors.\textsuperscript{6} Childhood is a rapid time of psychosocial development, but it can also be a vulnerable time when an allergen can cause anaphylaxis at any time or anywhere.\textsuperscript{3} Children with food allergies must find ways to protect themselves and build independence despite the severity of anaphylaxis.\textsuperscript{3}

Parenting style is an important factor for a child’s psychosocial development but also for how a child perceives their food allergy.\textsuperscript{3} Mothers, compared to fathers, of children with food
allergies show more anxiety and stress. Additionally, mothers report their anxiety levels to be higher than their children, creating a nerve-racking environment for the mother to parent her child. Most young children have the resiliency to combat parental anxiety, but children showed psychological distress when the parent took a negative approach to the food allergy or the mother had great anxiety. Because of all the different situations a child faces every day and their reliance on adults, a child’s daily life must be monitored and controlled, thus the control of the potentially severe situations due to the possible presence of allergens may become overgeneralized to the child’s entire interaction with their parent. If the control predominates the parent-child interactions, it can interfere with the child’s independent exploration which is necessary for the development of autonomy. A study conducted by Dahlquist et al. explored this concept of over-involvement of parents with children with food allergies. The research team looked at how a mother and child interacted while solving two different puzzles, one easy and the other more difficult, and in result the 3 and 4 year olds, regardless of food allergies or no food allergies, always asked their mothers for help, but the children with food allergies showed more limitations in their autonomy. Autonomy, the way a child learns to be independent, is a crucial part of a child social development so that a child can build relationships on their own. The children with food allergies asked for more indirect help on the easier puzzle and made statements of having difficulties, showing that the children with food allergies asked for more help than what was actually needed. This showed that parents of children with food allergies may be over-involved in the child’s day to day or offer unnecessary help when not needed, making the child feel unsure of their capabilities. Another example of the importance of autonomy is a study conducted by Williams et al. which assessed
child-rearing behaviors in the context of pediatric food allergy, and they utilized the
questionnaire Parenting Children with Food Allergy (PCFA). The findings from Williams et al.’s
study indicated that mothers of children with food allergies taught their child allergy
management skills from a young age and encourage sharing the responsibility of their allergy.
An important skill that was overall supported by mothers was autonomy. The use of
autonomy in regard to childhood food allergies recognizes the child’s limitations in which they
are able to manage their allergy, and the autonomy increases as age increases. The amount of
autonomy support that is given to the child depends on parental perception of the child’s
vulnerability and locus of control and the distress levels in the parent. The study by Williams
et al. found a strong negative association between parental protection and child age, clearly
showing that more protection is needed at an early age. This proves to be a norm within
children, and the continuation of the maternal monitoring and protection is determinate on the
child’s risk-taking tendencies. Additionally, perceived competence of the food allergy by the
parent may help the children who seek further knowledge about their allergy but are hindered
the fear of the unknown. Simon et al. conducted a study on the timing of transferring
responsibilities for anaphylaxis recognition and the use on an epinephrine auto injector, and
found that most responsibilities were transferred from parent to child around the age of 12 to
14, but the process of teaching these skills began at a much younger age. In many places,
children and teenagers are allowed to carry epinephrine auto injectors in school, which can
generate independence for a child and lessen the parental control since the auto injector would
not be given to a child unless they knew how to operate it. Readiness factors for epinephrine
auto injectors include knowing anaphylaxis symptoms and being able to demonstrate self-
injection with a trainer. If the parent uses the food allergy as an opportunity for building
autonomy, the child will have a chance to feel capable of managing their food allergies in social
situations, instead of feeling restricted by overprotection.

Childhood food allergies affect the psychosocial development of a child through
appearances of psychological disorder symptoms. In a study conducted by Shanahan et al., it
was found that adolescents with food allergies had one more symptom of psychopathology,
with a variety of symptoms such as emotional, disruptive, and eating disorders, than those
without allergies. The adolescents with food allergies also showed increased symptoms of
depression and generalized anxiety over time. Of these symptoms, they did not meet
diagnostic criteria for DSM-IV disorders, but instead these symptoms could be possible
adaptations to living with a food allergy. These adaptations could be results of increased
vigilance to external and internal stimuli of allergic reactions, which could be instilled in them
from parental overprotectiveness. Times of separation from parents when the child is young
create an anxiety-filled situation from both a child and parent perspective. Increased vigilance
may be a factor developed from a change in life style and food intake that is brought on by
allergies, forcing those with food allergies to be cautious of every food choice they make. This
makes a meal time worrisome. Since food allergies force you to alter eating habits and
behaviors, this could cause the person with the food allergy to change their feelings and
cognitions about food and one’s body, which may be an explanation for why eating disorder
symptoms were seen in Shanahan et al.’s study. Researchers Garg et al. proposed possible
mechanisms for the association between allergic and psychiatric disorders including sleep
deprivation and chronic inflammation. Sleep deprivation may predispose a person to
psychiatric disorders, thus strengthening the association between allergic disorders and mental health conditions.\(^1\) A study conducted by Petrovic et al. on the degree of anxiety in food allergic children ran questionnaires regarding the levels of anxiety and food allergies.\(^4\) Their findings did not show any evidence of increased anxiety in allergic children compared to their control, but they did find a trend for mothers of children of the allergic group in which the mothers reported more panic disorder symptoms in their children, suggesting stress or panic only in cases of actual anaphylactic emergencies instead of a generalized consistent anxiety.\(^4\) Petrovic et al. suggested that the lack of increased anxiety in their study was due to children’s strong cognitive and emotional mechanisms for coping.\(^4\) One of their screening tools was the Screen for Child Anxiety Emotional Disorders (SCARED), and from this questionnaire the children with food allergies scored high in resiliency, showing that despite what their parents might perceive, children with food allergies are able to live functionally with their allergies.\(^4\) The research shows there is no clear-cut psychological symptoms to look for in a child with food allergies, only some possible cases of symptoms, but the child may adapt differently through vigilance and resilience to combat the psychological stress of having a food allergy throughout childhood.\(^1,4\)

Despite a child’s dependence on his or her parents or caregivers, they have to face many situations on their own in which they may be vulnerable to their allergen or psychological hindrance.\(^7,10-11\) 16-18% of childhood food allergy reactions happen at schools, and this relatively low percentage is a representation of the seriousness of schools about food allergies.\(^10\) Schools provide a multi-faceted opportunity for children with food allergies because they are able to put their own self-knowledge and management of their food allergy to the test
while still having a safety net of well-trained adults.\textsuperscript{10} Placing a ban on certain foods may work in some cases for schools, but it does not always guarantee an allergen-free environment because it would be impossible to monitor every food that comes into the school.\textsuperscript{10} Schools should accommodate based on the needs of the individual student through health or educational plans.\textsuperscript{10} School cafeterias should be aware of cross-contamination in preparing foods with allergens and identify different allergens in foods, but should also be aware of the confidentiality of the student’s allergen and medical needs.\textsuperscript{10} The American Dietetic Association recognizes the importance of a safe food environment for children since the prevalence rates for childhood food allergies have increased in recent years.\textsuperscript{10} From their position paper on the Benchmarks for Nutrition in Child Care, the American Dietetic Association noted that a number of child-care programs no longer permit peanuts or peanut products in hopes to prevent accidental exposure, but most facilities would be labeled as peanut-restricted instead of peanut-free.\textsuperscript{10} Most child-care providers provide a safe environment for allergies that includes action plans and trained staff in case of an allergic reaction, since most of the children who are in child care are not yet old enough to know the management of their food allergies.\textsuperscript{10} Having preschools and elementary schools peanut-free reduces anxiety levels in both the child and the parent.\textsuperscript{11} With this method of eliminating a potentially harmful allergen, all children can be included in all food-related activities without being excluded.\textsuperscript{11} Some schools may require students with food allergies to sit at a designated “allergy-free” table at lunch because they do not want to take any chances or might not have the resources to provide an all-inclusive food environment.\textsuperscript{11} Forcing those children with allergies to sit at this table isolates them from their peers, which could be setting them up for development of
Some children may be resilient to the isolation; others may develop social anxiety. A newer concern for children with food allergies is being bullied because of their allergy. Children with food allergies have been facing the serious issue of bullying, in which more than 45% have been bullied at some point due to their food allergy. Bullying opens many doors for psychological distress. Since some children may experience separation from his or her peers during a social situation because of their food allergy, this may lead to anxiety and social stress. These factors may leave the children vulnerable to bullying which may cause the child with the allergy to face humiliation, depression, anxiety, or embarrassment. Support groups may prove to be beneficial in improving the quality of life of these children by providing them with emotional support when high levels of anxiety may result from multiple areas of life such as school, family, or health. Pediatric psychologists as well as Registered Dietitian Nutritionists can assist in the process of support for the child and can encourage caregivers to stay connected to their allergist and seek regular follow-ups. Creating a safe environment for the child’s physical, mental, and social health will benefit them to be successful in school without the worry of their allergen.

In order to help children through the psychosocial and situational struggles that come from food allergies, strong support systems need to be put in place to provide a reliable safety net and provide room for children to grow and develop autonomy. The practice paper from the Academy of Nutrition and Dietetics on the role of the Registered Dietitian Nutritionist in the diagnosis and management of food allergies identifies how childhood food allergies involve the whole family. The education that is told to the patient by the RDN is not just for the patient, but also for the parents and everyone else involved in the care for the child. Education and
management must be lifelong for the child, so parents and the child may be highly anxious.\textsuperscript{10} Increasing self-efficacy and self-advocacy on behalf of the parent and child, can work to decrease the anxious feeling surrounding the food allergy.\textsuperscript{10} Social support works as a consistent predictor of psychosocial outcomes in family coping with childhood chronic health conditions, but another important influence on psychosocial development of children is the parent’s self-efficacy, which is defined as the parents’ perceptions of their own ability to positively influence the behavior and development of their children.\textsuperscript{6} Parents who have strong parenting self-efficacy exhibit positive and adaptive child development outcomes through their parenting behaviors, skills, and strategies.\textsuperscript{6} This may be beneficial because high parental self-efficacy could be a protective factor against the negative factors such as low social support levels.\textsuperscript{6} Parents of children with food allergies with high self-efficacy may feel more confident in their ability to effectively teach their children to self-manage their food intake.\textsuperscript{6} This may be a vital goal for interventions targeting parents of children with food allergy.\textsuperscript{6} Another means of support that may be needed is support for finances since the financial burdens that are faced by a family with a child with food allergies average more than $700 per child for direct medical costs and out-of-pocket expenses more than $900 per child.\textsuperscript{12} Families often have to designate funds for special allergen-friendly foods.\textsuperscript{12} In order to meet the child’s nutritional needs, the family must put time and effort into examining food items for potential allergens and creating meals that are safe for the child.\textsuperscript{12} Researchers Aika et al. found the factors that contributed the most to success of food allergy response capability for child and parent is spousal, collaboration, elimination diet capacity (complete removal of allergen), being able to gather information from medical professionals, having knowledge about food allergies, and the ability
to cope with stress. Those capabilities were factored by maternal and household health status, food items eliminated and the number eliminated, anaphylaxis experience, and the type of medical facility used. Because there are many factors found that can hinder or promote success with childhood food allergies, multidisciplinary cooperation and support is needed from all members of the child’s medical team including physicians, dietitians, nurses, and psychologists.

Parents can help to reduce the child’s anxiety of their food allergy by managing their stresses and fears. If parents calmly approach food allergy management, focusing on safety, and modeling the use of positive coping mechanisms for themselves, their children will come to understand that food allergies are a manageable condition. The more overprotective the parents, the lower the child’s functioning will be later in life. To further upon the parent’s influence on the child’s psychological response to their food allergy, a deeper look into a possible genetic link or whether anxiety can develop through learning patterns may give insight into the psychological and social development of children with food allergies. Resiliency and autonomy prove to be important contributions for children to manage their allergies, while parents need to loosen the reigns on their protection as the child develops in order for those skills to grow. Shared decision making can promote autonomy and healthy self-care behaviors while decreasing risks for anxiety, depression, and social isolation. By joining support groups or participating in activities specially for children with the same allergies, children with food allergies can build self-efficacy together and learn from others with similar health conditions. Supporting the psychosocial development of children with food allergies helps to reduce the risk of future severe allergic reactions. Additionally, children with friends
who know about their food allergies do better psychologically and socially.\textsuperscript{2} The more confident a child is in their ability to manage their allergy, the more successful they will be mentally, physically, and socially in their life.\textsuperscript{2}


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Food Allergies

Psychosocial Impact of Pediatric Food Allergies

USEFUL INFORMATION FOR PARENTS

References

Support Systems

Schools, whether public or private, hold the unique ability to provide a consistent and safe learning environment for children. However, schools can also be challenging environments, especially for children with food allergies. School staff should be trained to recognize and respond to allergic reactions. It is important for schools to have clear policies and procedures in place for managing food allergies. This includes having plans in place for how to respond to an allergic reaction, ensuring that all staff members are trained, and providing support for students who may be experiencing emotional distress.

The child can develop allergies at school.

Food Allergies at School

Counselors are an essential part of the support system for children with food allergies. They can provide emotional support, guidance, and resources to help children manage their allergies. Counselors can also work with schools to develop policies and procedures for managing food allergies. The support of counselors can make a significant difference in the lives of children with food allergies.

Antigen

Antigen is a child's representation of their body's reaction to an allergen. It is thought to be a way of coping with the food allergy. The child may use the skills of the antigen to help them develop their sense of independence.

Psychosocial Distress

Psychosocial distress can be caused by bullying or other forms of discrimination. It is important for schools to have clear policies and procedures in place for managing food allergies. This includes having plans in place for how to respond to an allergic reaction, ensuring that all staff members are trained, and providing support for students who may be experiencing emotional distress.

The child can experience psychosocial distress when they are bullied for their food allergies.

Bullying

Bullying is a form of discrimination that can affect children with food allergies. It can lead to social isolation, low self-esteem, and depression. Schools can help to prevent bullying by providing a safe and welcoming environment for all students. This includes having clear policies and procedures in place for managing food allergies. The support of counselors can make a significant difference in the lives of children with food allergies.

The child may be present in many different allergens.

Allergens are substances that can cause an allergic reaction in a person. They can include foods, pollen, dander, and more. It is important for schools to have clear policies and procedures in place for managing food allergies. This includes having plans in place for how to respond to an allergic reaction, ensuring that all staff members are trained, and providing support for students who may be experiencing emotional distress.

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Food Allergies at School

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