The Impact of Pediatric Feeding Disorders on the Family

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April 17, 2023

Abstract

Abstract Pediatric feeding disorders are common, especially among developmentally delayed children. The consequences of having these disorders can be severe: children could suffer from growth failure, chronic illness, and even death. In addition, these disorders have been reported to affect members of the entire family. While some interventions have been implemented to help families with children with these disorders, these studies are limited by small sample sizes and the lack of long-term follow-up visits. Moreover, there is a lack of a standardized system to classify children with these disorders, which directly impacts the diagnoses of children with these disorders. This paper reviews the relevant literature on the impact on the family of these feeding disorders and the current classification systems and interventions used to help children with these feeding disorders. It also recommends further research to create a more standardized classification system and to test the efficacy of current interventions, with the aim of improving accuracy of diagnoses and developing treatments tailored to children's special needs.

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MEDICINE

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DATE RECEIVED:
June 10, 2016

DOI:
10.15200/winn.146553.33839

ARCHIVED:
June 10, 2016

KEYWORDS:
feeding disorders, family

CITATION:
Megan Yu, The Impact of Pediatric Feeding Disorders on the Family, *The Winnower* 3:e146553.33839 , 2016 , DOI: 10.15200/winn.146553.33839

Introduction

Feeding disorders are prevalent among children. Approximately 20-50% of normally developing children and 70-89% of children with developmental disabilities are reported to have some form of feeding disorder [1]. These disorders impose a large financial and social burden on the family, as previous studies have reported caregivers demonstrate higher levels of stress and anxiety while family routines and rituals are affected as well [2-3]. Multiple classification systems have been used to determine the prevalence of feeding disorders, including criteria from the DSM IV [4], the Stanford Feeding Questionnaire [5], and perceptions from caregivers [6]; however, the definition of a feeding disorder has not been standardized. Moreover, many interventions, such as non-nutritive sucking, oral motor interventions, feeding tubes, and behavioral and structural interventions, have been implemented to help children with these disorders [7-10]; however, many of these studies are limited by small sample sizes and long-term follow-up visits. Despite advances in knowledge of the impact and interventions that could be implemented to help children with these disorders, much remains unclear regarding the efficacy of these feeding disorder classification systems and interventions.

Identification of pediatric feeding disorders

A feeding disorder is often identified when, despite persistent attempts from parents or caregivers, a child fails to consume a sufficient amount or types of food in order to sustain weight and meet nutritional needs [11]. These disorders are often influenced by multiple organic factors, such as structural and gastrointestinal abnormalities, food allergies, and dysphagia [12], and environmental factors, such as insufficient exposure to textured or different types of food and behavioral mismanagement [13]. In addition, they often arise from combined behavioral and medical etiologies [14], which complicate the diagnosis and treatment of these disorders.

Classification of feeding disorders

Multiple classification systems have been used to categorize feeding disorders. Jacobi et al. discovered 21% of children were classified as picky eaters using the Stanford Feeding Questionnaire [5], and similar results were replicated by Mascola et al. [15]. Esparo et al. found 4.8% of children were categorized as picky eaters based on DSM IV criteria [4]. In addition, some research groups established the prevalence of feeding disorders based on the perceptions of caregivers. Carruth et al. discovered 19% to 50% of children from 4-24 months were classified as picky eaters based on the perceptions of caregivers [16].

Children with feeding disorders can also be categorized based on the etiology of these disorders. Budd et al. classified 26% of children with feeding disorders as organic nature, 40% primarily organic, 24% primarily nonorganic, and 10% nonorganic [17]. In addition, Palmer, Thompson, and Linscheid classified 79% of pediatric feeding disorders to neuromotor dysfunction and 21% to behavioral mismanagement [18]. Thus, many pediatric feeding disorders can be attributed to organic factors, such as structural abnormalities, metabolic syndromes, genetic abnormalities, and neurological deficits. On the other hand, there are also nonorganic factors that should be considered in the etiology of these feeding disorders. For instance, Tarbell and Allaire suggested that physical/emotional, educational, social, environmental, and behavioral issues should be considered in the classification of pediatric feeding disorders [19]. While these classification systems do exist, none of them are universally accepted, which calls for the need to evaluate these methods to determine a standardized classification system for these feeding disorders.

Impact of pediatric feeding disorders on the family

Pediatric feeding disorders have a huge impact on the family. Coulthard et al. and Singer et al. demonstrated mothers whose children have feeding disorders have significantly higher anxiety and depression compared to others [20-21]. In addition, Benton et al. demonstrated children with feeding disorders are associated with mealtime frustration and a lack of understanding by other family members [22]. Moreover, Darke et al. suggested that while mothers of medically compromised children reported higher levels of stress, fathers of children with cystic fibrosis or congenital heart disease did not differ in stress compared to those of healthy children [23]. Although many studies have suggested that children with feeding disorders have a large impact on their mothers, which are consistent with clinical impressions that mothers share a larger psychological burden of their children's illnesses than fathers, further research is needed to determine whether this trend stays consistent with children of other feeding disorders and whether these children have an impact on other members of the family.

Interventions used to treat children with feeding disorders

Multiple interventions have been used to treat children with feeding disorders. Pinelli et al. concluded that non-nutritive sucking may be associated with a decrease in length of stay, a faster transition from tube to bottle feeds, and better bottle feeding performance and behavior [24]. In addition, Wilcox et al. and Morgan et al. have suggested oral-motor therapy may improve sensorimotor skills; however, further research is needed to evaluate this type of intervention [25-26]. Moreover, Peterson et al. and Sleigh et al. suggested that feeding tubes may relieve some stress in the caregiver and may aid the child in gaining weight, however, larger studies are needed to evaluate the benefits of this intervention [27-28]. Furthermore, Cornwell et al., Clawson et al., and Greer et al. suggested that intensive, interdisciplinary and multidisciplinary feeding programs may decrease stress on the caregiver and

improve mealtime behaviors, weight, and caloric intake for the children [29-31]. However, given that many of these studies have small sample sizes and lack follow-up visits, larger studies are needed to evaluate the efficacy of these interventions.

Conclusion

A growing body of evidence suggests that pediatric feeding disorders have severe consequences on the children and may have a huge impact on the family. While some interventions have been implemented to help families with children with these disorders, such as non-nutritive sucking, oral-motor therapy, feeding tubes, and intensive interdisciplinary programs these studies are limited by small sample sizes and the lack of long-term follow-up visits. Moreover, there is a lack of a standardized system to classify children with these disorders, which directly impacts the diagnoses of children with these disorders. Further research is needed to create a more standardized classification system and to test the efficacy of current interventions in order to develop treatments that could aid children with feeding disorders.

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