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FEEDING PROBLEMS OF CHILDREN WITH AUTISM

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Abstract

Children with autism generally have feeding problems especially in their mealtime behavior. The purpose of this study is to identify the feeding problems of children with autism. To be able to determine the problems of children with autism BAMBI (Brief Autism Mealtime Behavior Inventory), (Demand, Johnson and Fokles, 2015; Meral and Fidan, 2014) is used. Twenty-one families of children with autism were participated in the study. The results of our study showed that according to the parental reports children with autism have feeding problems in terms of mealtime behavioral problems such as crying and yelling throughout meals. Other results of the study and recommendations are discussed in discussion.

Keywords

Feeding Behaviors Feeding Behaviors, Autism, Eating Problems, Family's Perception

1. Introduction

To overcome feeding problems may result in unfavorable effects in life of children. Feeding problems not only health related issues but also social problems (Laud, Girolami,

Boscoe, & Gulotta, 2009). Since feeding problems are not specific to diagnosis based issues, they may be seen in normally developing children as they are for children with developmental disabilities (Laud, Girolami, Boscoe, & Gulotta, 2009). One of the prevalent populations of feeding problems is the children with autism. Although there are no swallowing problems physiologically in children with autism, they could show unsafe feeding behaviors (Twachtman-Reilly, Amaral, & Zebrowski, 2008). Unsafe feeding behaviors may bring about undesirable conditions for children with autism such as aspiration of foods, malnutrition, obesity, etc. In their study Bandini, et al., (2010) found that children with autism displayed more food refusal and restricted food repertoire compared to their normal peers. In another study Malhi et al., (2017) compared children with autism and typically developing children about feeding problems and nutrient intake. These children showed problems such as pickiness, selective meal repertoire and intake of restricted food items according to the reports from the parents of children with autism. The feeding problems such as disruptive mealtime behaviors of children with autism bring about the family stress (Thullen and Bonsall, 2017).

Autism is identified and characterized with social interaction disorders, communication disorders and limited, stereotyped behaviors, interests and activities (APA, 2013). As being one of the characteristics of autism, limited interest and behaviors can be seen in the area of feeding. Restriction behaviors of children with autism may be reflected in feeding in terms of specific kinds and/or texture of foods. Extremely narrow food selections, ritualistic eating behaviors (e.g. no foods can touch) and meal-related tantrums are also associated with picky eating with these children. They can display pretty much picky feeding pattern in comparison with typically developing children. Children with autism can be identified as “picky eaters” because of their feeding behaviors in terms of pickiness of food (Ahearn, Castine, Nault, & Green, 2001). Because of limited feeding behaviors and pickiness in eating foods the parents of children with autism has been worried about their children. Although pickiness of eating could be observed in normally developing children, it is seen children with autism more frequently than normally developing children (Ahearn, Castine, Nault, & Green, 2001). Most of children with autism showed limited feeding behaviors as it can be seen that 76 % of children with autism demonstrate pickiness of food and have sensitiveness of food (Matson, Fodstad and Dempsey, 2009). The eating problems children with autism not only affect negatively the life of children but also their family in terms of sociological and physiological being (Estrem, et al., 2017).

Sharp and colleagues (2013) reviewed feeding problems and nutrient intake in children with autism. The results of the review showed that children with autism spectrum disorders experienced significantly more feeding problems than children with normal development and the nutrition analyses indicated significantly lower intake of calcium and protein. Therefore, it is crucial experts take “picky eating” as an important eating issue for management adequately. Table 1 lists some questions needs to be asked to parents with children with autism spectrum disorders as well as developmental delays.

Table 1: Eating history questions to be considered during initial interview

Details of extensive choking, coughing or gagging when eating?
How often this occurred?
What happened next?
Any time that the child has loss of oxygen while eating?
Drooling during eating?
Able to chew mouth closed?
Mouth breather or nose breather?
Nasal regurgitation occurs during meals? With solids? With liquids?
Respiratory problems? Wheezing during meals? Pain?
Does the child have pneumonia in a year? How often?
Does the child have upper respiratory infections in a year? How often?

An occupational therapist, speech and language pathologist, and nutritionist or dietician along with a doctor and a nurse are all involved when a team approach is used for a feeding assessment. Frequently a social worker or child psychologist is also part of a feeding team.

Considering that problems of feeding of children with autism could lead to health problems, it is important to deal with the problems. To be able to overcome to feeding problems of children with autism, speech and language therapists have taken important roles. As well as working with the swallowing and feeding disorders of different populations, speech and language therapists work with feeding behaviors of children with autism (Twachtman-Reilly, Amaral, & Zebrowski, 2008; Homer, 2008). Table 2 lists the team of people that work with the feeding problems of these children.

Table 2: Feeding team for “picky eaters”

Occupational Therapist
Speech language pathologist
Child life specialist
Dietitian
Behavior therapist
Doctor (developmental pediatrician, child psychiatrist)
Nurse

Health care professionals emphasize that to manage these unhealthy behaviors interventions should focus to eliminate problem behaviors and re-teach feeding that can help children with autism eat a healthy, balanced diet (Rastam, 2008). Thus, families will have reduced stress, able to eat with their children in various environments as well as family gatherings of birthdays and holidays.

Although the primary cause of “picky eating” in autism remains not known, the studies highlight the need for treatments that lessens mealtime stress for children with autism and their families. The aim of this study is to determine the feeding problems that families come face to face of their children with autism in Turkey.

2. Method

In this study the survey design (Creswell, 2013) conducting a survey to the parents of children with autism to get their views and describe the certain feeding behaviors of their children. Parental reports of children with autism are examined by using Brief Autism Mealtime Behavior Inventory (Lukens and Linscheid, 2008; Demand, Johnson and Fokles, 2015; Meral and Fidan, 2014)

3. Data Collection Device

To be able to determine the feeding behaviors of children with autism Brief Autism Mealtime Behaviors Inventory, (BAMBI; Lukens and Linscheid, 2008; Demand, et al 2015; Meral and Fidan, 2014) is used to assess the feeding behaviors of children with autism. BAMBI

has 18 items and 5-level Likert-type scale. BAMBI evaluate the behaviors of feeding during eating, eating habits and selection of foods.

3.1 Participants

The participants are 21 mothers of children with autism. Those families were selected from an eight different Special Education and Rehabilitation Facilities that those children attended. The parents asked to participate voluntarily to this study. The participants have been given a survey as well as a demographic background information sheet about the feeding behaviors of their children with autism during mealtime.

Table 3: *Characteristics of participants*

Age of mothers	BAMBI
26-30	4
31-35	7
36-40	8
41-45	1
46-50	1
Total	21
Mean	32

Table 4: *Occupation of mothers*

Occupation of mothers	BAMBI
Housewife	17

Nurse	1
Technician	1
Chemist	1
Tax professional	1
Total	21

Table 5: *Gender of children with autism*

Gender of children with autism	BAMBI
Boy	17
Girl	4
Total	21

Table 6: *Mean*

Mean	BAMBI
Height of children	1.36
Weight of children	29

Table 7: *All day care*

All day care	BAMBI
Mother	20

Babysitter	1
Total	21

Table 8: *Age range of children*

Age range of children	BAMBI
3-5	6
5-7	7
7-9	1
9-12	1
12-15	2
Mean	9

4. Results

The results of study showed that children with autism have feeding problems during mealtime. The 18 items in BAMBI was examined at the item level. According to result of the study there are mainly four main problems. First, children with autism are reported frequently to display problem behaviors such as “crying” and “yelling” during mealtime. Second behavioral feeding problem of children with autism is that they frequently “avoidance certain type of foods” by crying and yelling during mealtime. Third, children with autism are “selectiveness of food items” as they do not eat “certain types” and “certain textures” of foods during mealtime. Lastly children with autism “dislike” some kinds and texture of foods during meal time.

5. Discussions

Results of study showed that the feeding behaviors of autism are problematic. There is need for deep information about the feeding behaviors of children with autism. The questions

remained unanswered: Is there a relationship with feeding behaviors of children with autism and their home? That is to say, mothers can cook according to what their children usually eat. If so second question is that: Are the parents of children with autism aware of the importance of healthy eating behaviors?. The third one is that: Are the parents of children with autism aware of unhealthy results of food selectivity? Next studies should examine the previous questions arisen. Also more information may be added to clarify real profiles of the feeding behaviors of children with autism. For instance observation during mealtime should be done. By the way for the eating environment and parents eating culture may be a factor affecting the feeding behaviors of children with autism. For example the family themselves may feed in same kind of nutrients and so. Also semi-structural interviewed could be used to gather detailed information's about the children with autism and their feeding behaviors. The results of the study were similar of those findings of Meral and Fidan, (2015).

The limited eating habits of children with autism should be addressed with a balanced approach towards healthy eating in autism defined as integrated service including dietitian, speech and language therapist and pediatric psychologist (Cornish, 1998). Oral sensitivity, poor oral motor movements and difficult eating behaviors are to be approached as a team during rehabilitation. This will also help with cognitive and oral-motor development. Food preferences were specific for 'solid' or 'liquid' forms, usually not in mixed forms; or forms of similar colors at all times such as all white foods or all creamy foods; of all shaped the same, round or small cut; and final but not least the retail products and even the same brand packaging were chosen. Food refusal and introduction of new foods were cited as the most difficult problems faced by parents. Sharp, et al. (2013) indicated in their review that in clinical settings comprehensive evaluation, detailed nutritional analyses, family support about the special diets program for their children with autism and individualized diet programs for children with autism is more comprehensive for management.

There is a need for early intervention for management to be is effective (Volkert and Vaz, 2010). In terms of treatments, prevention and diet programs Volkert & Vaz (2010) suggested that methods are to be examined to prevent the emergence of feeding problems, and efficacy of such management on ongoing poor diet and nutrition that could be affecting overall motor, cognitive, and behavioral development of children with autism. The program for eating problems

of children with autism need to aim for both children with autism and their parents (Estern et al, 2017; Thullen and Bonsall, 2017). As Estern et al. (2017) emphasized the families of children with autism are very important because of their role in problems of eating problems of their children. Malhi et al (2017) state that extensive and scientific based intervention for eating problems of children with autism.

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