

Meal Time Behavior of Children with Autism

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Abstract: *To understand the behavior of Autistic children during mealtime a study was conducted in Raipur district of Chhattisgarh. Sixty four Mentally Retarded children with the associated problem of Autism were selected from the different schools specially meant for the Mentally Retarded children. Self-designed pretested Individual Data Sheet (IDS) was administered among the parents and caretakers of the Autistic children. In the present study aggressive behavior, specific food selection or refusal and moving around during mealtime were some of the behaviors observed among the Autistic children. The results indicate that these disruptive behaviors not only affect the food intake but also increases the duration of meal time as well.*

Keywords: mealtime, food selectivity, disruptive behavior.

1. Introduction

Autism is characterized by communication deficits, impairments in social interaction, and repetitive or stereotyped behavior (**American Psychiatric Association 2000**). In many children with autism cognitive delay is also seen, but degree of Mental Retardation and the presence and severity of specific symptoms are quite variable. Since diagnostic confusion may result in referral to inappropriate and ineffective treatment techniques, it is important to distinguish autism from retardation or mental disorders. Extreme self-injurious, repetitive, highly unusual and aggressive behavior may be present in the severe form of the syndrome. Special educational programs using behavioral methods are the most helpful treatment. The prevalence of feeding problems are estimated in children with Autism has been reported to be as high as 90% (**Kodak & Piazza 2008**), with close to 70% of children described as selective eaters (**Twachtman-Reilly et al 2008**). In fact, some authors have suggested that the presence of feeding difficulties in infancy may be an early sign of autism (**Keen 2008; Laud et al 2009**). Research has shown that strategies based on applied behavior analysis are effective for increasing appropriate behavior and decreasing inappropriate behavior in children with autism (**Kodak & Piazza 2008**), hence, it is reasonable to assume that similar strategies would be effective for treating their feeding problems. It is very surprising that only four studies published in the Journal of Applied Behavior Analysis (JABA) and a few additional studies published in other journals (e.g., Behavioral Interventions) since 2007 focused on treatment of feeding problems in children with Autism.

The results of a number of studies have shown that early intervention is effective in ameliorating the symptoms of autism. Researches should evaluate the effectiveness of early intervention of feeding problems, and more important, methods to prevent the emergence of feeding problems. Finally, little is known about how early and ongoing poor diet and nutrition affect the motor, cognitive, and behavioral development of children with autism. This issue is of great importance. (**Valeri & Petula 2010**)

2. Review of Literature

In a study by **Najdowski et al (2008)**, caregivers of 6 children (5 with autism and food selectivity) conducted a functional analysis of their children's inappropriate mealtime behavior. Results depicted that caregivers could be trained to implement the functional analyses with high integrity. **Borrero et al 2010** conducted descriptive analyses for 25 children (3 with autism) who exhibited severe food refusal or selectivity. Results of conditional probability calculations of the consequences delivered by parents (escape, attention, tangible items) for food refusal suggested that escape (meal termination) and attention (coaxing) were the most frequently observed consequences.

Laud et al. (2009) evaluated the effectiveness of an interdisciplinary feeding program for 46 children with autism. Each participant received therapy based on principles of applied behavior analysis for 3 hours every day and oral motor therapy of 1 hour per day for at least five days or for all seven days of the week. Amount of food consumed and acceptance increased and refusal behavior and negative vocalizations decreased between admission and discharge. **Williams** also demonstrated the effectiveness of a day-treatment feeding program that used behavioral interventions.

3. Methodology

An observational study was conducted to understand the different types of behaviors shown by Autistic children during meal time. Sixty four Mentally Retarded children with the associated problem of Autism were selected from the different schools specially meant for the Mentally Challenged children. Both purposive & random sampling procedures were adopted while selecting the sampling sites and the samples. Self-designed pretested mealtime behavior assessment schedule was administered among the parents and caretakers of the Mentally Challenged children. Mealtime behavior assessment schedule consisted of informations about behavior during meals like moving around during meal time, aggressive behavior, food refusal etc. To avoid any error and to get a good response rate the information were collected personally from the respondents. Simple

statistics in terms of frequency & percentage was calculated from the collected data.

4. Results and Discussions

The Results of the study are depicted in Table No.1 and 2.

Table 1: The Frequency Percentage Distribution of the Subjects as per Mealtime Behavior

SN.	Behavior	Always	Sometimes	Never
1.	Specific food selectivity	65.4	25.6	18
2.	Specific food refusal	81.2	18.8	-
3.	Aggressive behavior	37.5	9.8	52.7
4.	Move around during mealtime	50	6.3	43.7
5.	Able to indicate the hunger feelings	87.4	6.3	6.3

According to **Kodak and Piazza (2008)** one of the Meal time Behavior disorders in children with Autism include acceptance of only specific presentations of food and refusing specific types of foods. Numerous case studies documenting food selectivity have shown a varied pattern of problematic eating behavior. In these studies there have been reports of selectivity specific to food type (**Leibowitz & Holcer 1974; Shore et al 1998**), by the temperature of the food, by foods of particular texture (**Luiselli & Gleason 1987; Johnson & Babbitt 1993**) by the person who feeds them, by particular people present during the meal, by the location of the meal, or a mixed combination of many of these variables (**Kuhn & Matson 2002**). In the present study the specific food selectivity was "Always" observed in 65.4% children and the specific food refusal was "Always" observed in 81.2% children. Moving around during mealtime is also one of the common behaviors shown in Autistic children. Fifty percent children were "Always" showing such behavior while 6.3% children were showing this behavior under the criteria "Sometimes" & 43.8% under the criteria "Never". Presence of any physical problem, anxiety or inability to express the feelings properly can cause aggression in these children. Aggression during meal time may affect the food intake and also put some extra burden and stress on the caretakers and parents. The data further indicate that 37.5% children were "Always" showing aggressive behavior during mealtime. In the present study 87.4% children were found to be able to indicate their hunger feelings.

Improper pacing involves engaging in behavior resulting in either rapid eating or long latency between bites of food. Rapid pacing may result in gagging or vomiting, while slower pacing may lead to limited caloric intake or long meal duration with short latency between meals (**Luiselli 1989**). Table No.,2 depicts the Frequency Percentage Distribution of the Subjects as per Mealtime Duration. In the present study it was observed that 56.3% Autistic children were taking 10-30 minutes ,31.3% children were taking less than 10 minutes and 12.5% were taking more than 30 minutes to finish their meals.

Table 2: The Frequency Percentage Distribution of the Subjects as per Mealtime Duration

S No.	Mealtime Duration	Frequency Percentage
1.	Less than 10 min.	31.3
2.	10-30 min.	56.3
3	More than 30 min.	12.4

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5. Conclusions

It can be concluded from the present study that there are varieties of disruptive behaviors shown by Autistic children that can affect the food intake and duration of meal time. Such behaviors may put extra burden on the caretakers and parents. In children having behavioral issues that disrupt the feeding, the food intake can be increased by providing small, easy-to-eat servings by limiting the number of foods served and feeding the children in environments free from distractions. Some motivational awareness programs should be conducted specially for the parents of the children who are recently diagnosed as Autistic, so that the children can get proper training at an early age to improve their quality of life.

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