

Feeding Behaviors of Children with Autism Spectrum Disorder in Baghdad City

سلوك التغذية للأطفال المصابين باضطراب طيف التوحد في مدينة بغداد

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المستخلص

الهدف: لتقييم السلوك الذي يعيق الأكل عند الاطفال المصابين باضطراب طيف التوحد في مدينة بغداد ، ومعرفة العلاقات بين السلوك التي تعيق الأكل لدى الاطفال المصابين باضطراب طيف التوحد وخصائصهم الديموغرافية
المنهجية: بدأت الدراسة من 16 أيلول 2019 إلى 16 آذار 2020. اختيرت عينة غير احتمالية (غرضية) من 80 طفلا الذين يعانون من اضطرابات طيف التوحد. صممت الاستبانة وتألفت من جزئين: الجزء الأول يتضمن البيانات الديموغرافية للاطفال الذين يعانون من اضطرابات طيف التوحد، و الجزء الثاني يشمل مقياس السلوك الذي يعيق الأكل المتبعة من قبل الوالدين تجاه الطفل المصاب بالتوحد. حدد ثبات الاستبانة من خلال اجراء الدراسة المصغرة (الاستدلالية) وحددت مصداقيتها من خلال مجموعة خبراء بالاختصاص (14) خبير. وجمعت البيانات من خلال الاستبانة. وصفت وحللت البيانات باستخدام اساليب الاحصاء الوصفي والاستنباطي.

النتائج: اشارت نتائج الدراسة الحالية الى أن سلوك التغذية للأطفال الذين يعانون من اضطرابات طيف التوحد تأثر بشكل متوسط ، فيما يتعلق بالعلاقة ذات الدلالة الاحصائية بين الخصائص الاجتماعية والديموغرافية للأطفال الذين يعانون من اضطرابات طيف التوحد مع مستويات سلوكهم للتغذية لم يتم ايجاد أي ارتباط مهم.

التوصيات: أوصت الدراسة بأن هؤلاء الاطفال بحاجة الى برامج تاهيلية وسلوكية خاصة تتعامل مع مشكلات سلوك التغذية لديهم ولتحسين سلوكهم الغذائي.

الكلمات المفتاحية: سلوك التغذية، اضطراب طيف التوحد.

Abstract

Objective(s): To assess the behavior that impedes the eating of children with autism spectrum disorders in Baghdad city, and find out the relationships between the behaviors that impede eating of autistic children and their demographic characteristics.

Methodology: The study started from the period of 16th September 2019 to the 16th of March 2020. A non-probability (purposive) sample of 80 children with autism spectrum disorders was selected. The questionnaire was designed and composed of two parts: the first part includes the autistic children demographic data, the second part includes scales of behavior that impede eating followed by parents towards autistic child. The reliability of the questionnaire was determined through a pilot study and the validity through a panel of (14) experts. The data were collected by questionnaire. The data were described statistically and analyzed through the use of descriptive and inferential statistical analysis procedures.

Results: The results of the present study indicated that feeding behaviors of autistic children were affected at moderate level, with respect to the relation of autistic children socio-demographic data with their feeding behaviors levels, no significant association was determined.

Recommendations: The study recommended that those children need for special rehabilitative and behavioral programs dealing with their behavioral problems, and to improve their feeding behaviors.

Keywords: Feeding Behaviors, Autism Spectrum Disorder.

Introduction

Autism, a developmental neurological disability usually diagnosed before three years of age, it is characterized by a lack of social reciprocity and language skills that are associated with repetitive behaviors, and restricted interests ⁽¹⁾⁽²⁾⁽³⁾. Autism is more prevalent in males than females and occurs across all regions, cultures, and socioeconomic classes around the world ⁽⁴⁾.

Often cited dysfunction in the digestive system among children with autism and this anxiety is exacerbated by high rates of nutrition concerns and the consequent medical consequences in autism ⁽¹⁾.

Feeding problems and behaviors that impede eating during mealtime may occur in as high as 90% of autistic children ⁽⁵⁾. Feeding difficulties are well-recognized in children with an autism spectrum disorder, who are five times more likely to have feeding problems than typically developing children ⁽⁶⁾.

Materials and Methods

Study Design: A descriptive design was conducted on parents of autistic children in Baghdad city from the period of 16th September 2019 to the 1st of March 2020. The study was carried out from the Autism Center to assess the feeding behaviors of children with autism spectrum disorders.

Study Sample: A non-probability (purposive) sample of 80 autistic children with 80 of their parents (father and mother) were selected from the rehabilitation centers when they accompanied their children at the time of attending is the center. The parents accepted to participate in the study after explaining the

researcher need their contribution and fulfill the questioner form.

The Study Instruments: The questionnaire format consists of two parts:

Part I: Demographic characteristics of the autistic children: It includes demographic characteristics concerning the autistic children like gender, age, child age at diagnosis, child ranking among the sibling, and type of treatment.

Part II: Feeding behavior followed by parents towards autistic child: is a parent report checklist intended to assess the degree behavior that impedes the eating that observed in autistic children. The 8 item measure utilizes 3-point liker scales: (1=Always, 2= Sometimes, 3=Never). The total score ranged from a maximum score of 24 to a minimum 8 with the higher score indicated of more desire behaviors while the lowest score indicated problems in feeding behaviors ⁽⁷⁾.

Data collection: The data collected by the investigators, parents of autistic child were asked to complete a self-administered questionnaire, after taking the initial consent of each parent to participate in the study.

Data Analysis: it performed through the computation frequencies, percentages, standard deviation (SD), mean of the score (MS), and relative sufficiency (RS %). Also, a contingency coefficient (C.C.) was used to find out the relationship between autistic children feeding behaviors during mealtime and their demographic variables, and statistical significant was at p value < 0.05.

Ethical Considerations: The Institutional Review Board (IRB) at the University of Baghdad, College of Nursing approved the study to be conducted. The study protocol meets both the global & the Committee on

Publication Ethics (COPE) standards of respecting humans subjects' rights.

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Results

Table (1): Distribution of Socio-demographic Characteristics for Autistic Children

Variables	Groups	Frequency (f)	Percentage (%)
Age Groups Per years.	1 – 4	17	21.2
	5 – 8	45	56.3
	9 – 12	18	22.5
	Mean ± SD	6.91 ± 2.50	
Gender	Male	59	73.8
	Female	21	26.2
Child's age at diagnosis (Per yrs.)	1 – 5	45	56.3
	6 – 10	35	43.7
	Mean ± SD	4.64 ± 1.68	
The child's hierarchy among his family members	1st	29	36.3
	2 nd	27	33.7
	3 rd	16	20.0
	4 th	4	5.0
	5 th	4	5.0
Type of treatment	Drugs	2	2.5
	Training (*)	60	75.0
	Drugs with training	18	22.5

F= frequency, %= percentage, (*) Training (Behavioral, Pronunciation, Sensory, Social skills)

Table (1) shows that highest percentage of the study sample was represented (56.3%) within age groups of (5-8) years, (73.8%) were male, more than half (56.3%) were diagnosed with autism at age groups of (1-5) years, (36.3%) were the first child in the family, and (75%) of the study sample were used training in the treatment of their autism child.

Table (2): Distribution of Autistic Children Response Items for Behaviors that Impede Eating

Behaviors that Impede Eating Items	Responding	f	%	MS	SD	RS%	Ass. Level
Shouts or cries while eating	Totally disagree	23	28.80	1.80	0.58	60.00	M
	Neutral	50	62.50				
	Totally agreed	7	8.7				
He turns his face or body away from eating	Totally disagree	33	41.2	1.64	0.58	54.70	L
	Neutral	43	53.80				
	Totally agreed	4	5.00				
Leaves the dining table before finishing the meal	Totally disagree	22	27.50	1.91	0.68	63.70	M
	Neutral	43	53.80				
	Totally agreed	15	18.7				
Spits food out of his mouth while eating	Totally disagree	33	41.30	1.68	0.63	56.00	M
	Neutral	40	50.00				
	Totally agreed	7	8.7				
Performs aggressive behaviors towards the objects and individuals surrounding him while eating	Totally disagree	30	37.50	1.71	0.62	57.00	M
	Neutral	43	53.80				
	Totally agreed	7	8.7				
Makes noisy sounds while eating	Totally disagree	26	32.50	1.84	0.68	61.30	M
	Neutral	41	51.30				
	Totally agreed	13	16.2				
Spends a long time eating	Totally disagree	19	23.7	2.09	0.75	69.70	M
	Neutral	35	43.80				
	Totally agreed	26	32.50				
Fails to feed himself independently	Totally disagree	21	26.30	1.95	0.69	65.00	M
	Neutral	42	52.50				
	Totally agreed	17	21.2				
Overall Assessment				1.83	20.92	61.00	M

F: frequency, **%:** percentage, **SD:** Standard Deviation, **Ass. :** Assessment (33.33 – 55.55) Low (L); (55.56 – 77.77 Moderate (M); (77.78– 100) High (H).

Table (2) revealed that autistic children concerning behaviors that impede eating items, in general, are at a moderate level in all items, except item "He turns his face or body away from eating", which shows a low level.

Table (3): Association between Feeding Behaviors of Children with Autism Spectrum Disorders and their Socio-demographical Characteristics Variables

Socio-demographical Characteristics Variables	Overall Assessment for behaviors that impede eating		
	C.C.	P-value	C.S. ^(*)
Gender	0.046	0.677	NS
Age Groups	0.146	0.417	NS
Child's age at diagnosis	0.117	0.293	NS
The child's hierarchy among his family members	0.203	0.486	NS
Type of treatment	0.226	0.116	NS

^(*) HS: Highly significant at $P < 0.01$; S: significant at $P < 0.05$; NS: Non significant at $P > 0.05$; Testing based on Contingency Coefficients (C.C.).

This table shows a no-significant relationship between autistic children's socio-demographical characteristics and their behaviors that impede eating at p-values of ≥ 0.05 .

Discussion

In table (2), totally the result of the current study revealed that the overall behaviors that impede the eating of autistic children were at a moderate level, which may refer to the presence of eating behavior problems and unsatisfactory level for autistic children. This result agrees with the study conducted in Baghdad city about "Assessment of Behavioral disorders of children with Autism", the study reported the child's behavior level were moderate and accounted 39 (50%)⁽⁸⁾. Also, this finding agrees with a study conducted in Saudi Arabia about "Feeding problems in children with Autism Spectrum Disorders and its relationship with some variables", the study mention that overall feeding behaviors of children with ASD were moderate level⁽⁷⁾. Moreover this result supported by a study conducted in Turkey that mentions that children with autism have feeding problems during mealtime⁽⁹⁾.

The result of the present study showed that socio-demographic characteristics include (child age, gender, child's age at diagnosis, child's hierarchy among his family members, and treatment type) did not affect in relation

to the behaviors that impede eating during mealtime of autistic children in the table (3). This result consistent with study about "Development and Validation of an Inventory to Assess Eating and Mealtime Behavior Problems in Children with Autism", the study reported that no significant association was found between (child age and gender) with feeding behaviors of autistic children⁽¹⁰⁾.

Recommendations

The study recommended:

1. The Ministry of Health and the Ministry of Labor and Social Affairs policy may support provide autistic children and high-quality services to help them to cope with this disorder.
2. Special rehabilitative and behavioral programs dealing with the feeding behavior problems of autistic children are needed to improve their feeding behaviors and to prevent failure to thrive that can potentially threaten children's growth and development process.
3. Using mass media and TV for educating the community as a whole about feeding

behavior; to improve their children's feeding behaviors.

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