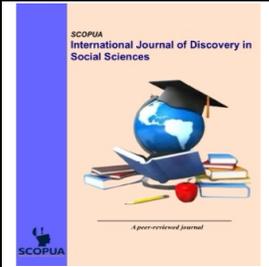




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A Study of Sensory Issues of Students with Autism

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ABSTRACT

The primary objective of this quantitative study was to explore the sensory issues experienced by students with autism. The target population consisted of all teachers working with autistic students across Punjab. A convenience sample of 50 teachers was selected from various schools throughout the region. Data were collected using a self-developed questionnaire designed to gather teachers' perspectives on the sensory challenges faced by their students. Interviews were conducted, and the responses were transcribed, coded, and analyzed thematically. Frequency distributions of the responses were calculated to identify common trends. The findings indicated that sensory issues significantly hinder the educational progress of students with autism. Based on the results, conclusions were drawn and recommendations were provided to both parents and teachers to help address these sensory challenges and support greater independence among students with autism.

Keywords: Sensory Issues; Autism; Sensory Integration; Child Psychology

1. Introduction

Sensory processing refers to the way the nervous system receives input from the senses and transforms it into appropriate motor and behavioral responses. Successful completion of any activity depends on the healthy processing of sensory information. Sensory issues arise when sensory signals are either not detected or are not properly translated into suitable responses. Individuals with sensory processing difficulties may struggle to interpret and respond effectively to sensory input from their environment (Lucy.j.Miller, 2014).

Autism Spectrum Disorder (ASD) is a neurodevelopmental condition characterized by persistent deficits in social communication and interaction, along with restricted and repetitive behaviors, interests, or activities. The term "spectrum" indicates the wide variability in symptoms and levels of functioning among individuals with the disorder. ASD typically presents in early childhood and continues throughout a person's life. Common early signs include difficulties in language development, limited eye contact, and challenges in engaging in typical social behaviors.

Research indicates that ASD results from a complex interplay of genetic and environmental factors (Lord et al., 2018). According to the *Diagnostic and Statistical Manual of Mental Disorders (5th ed.; American Psychiatric Association, 2013)*, several previously separate diagnoses—such as autistic disorder and Asperger's syndrome—are now included under the broader category of ASD. Additionally, many individuals with autism experience sensory processing difficulties, making it harder for them to respond appropriately to sensory stimuli (Tomchek & Dunn, 2007). These sensory issues can affect learning, behavior, and overall quality of life. Therefore, understanding and addressing sensory challenges is crucial for supporting the development and independence of individuals with ASD (National Institute of Mental Health, 2022).



Recent research continues to highlight the impact of sensory processing difficulties on students with ASD. Tavassoli et al. (2016) found that children with autism show heightened sensory reactivity, particularly in the domains of touch and auditory stimuli. These difficulties can cause distress and avoidance behaviors in classroom environments, which are often full of unpredictable sensory inputs such as noise, movement, and visual clutter.

Little et al. (2018) explored how sensory reactivity relates to functional daily living skills and found that children with greater sensory sensitivities exhibited lower levels of independence in self-care and social participation. These findings are significant for educators and caregivers, as they suggest that sensory issues directly impact not only academic engagement but also personal autonomy.

Furthermore, Lane et al. (2019) emphasized that sensory overresponsivity can contribute to behavioral challenges such as anxiety, irritability, and social withdrawal. These behaviors are sometimes misunderstood by teachers as intentional misbehavior rather than responses to overwhelming sensory input. The authors argue for school-wide awareness and sensory-sensitive classroom strategies to support regulation and engagement.

In terms of intervention, Reynolds et al. (2017) examined the use of sensory-based occupational therapy strategies and found positive outcomes in improving adaptive behavior and classroom participation. They stressed the importance of individualized sensory support plans that take into account each student's unique profile of sensory needs.

Overall, contemporary studies reinforce the understanding that sensory processing difficulties are both prevalent and impactful among students with ASD. These challenges affect not only sensory regulation but also academic performance, emotional well-being, and daily functioning. Thus, educational planning for students with autism must include evidence-based sensory supports to enhance learning and independence.

1.1 Objectives of study

The study is conducted to achieve the following objectives:

1. To know the perspectives of sensory issues.
2. To know the sensory issues of student with autism.
3. To know the effects of sensory issues on education as perceived by their teachers.
4. To know the effects of school environment on sensory issues of students with autism on the basis of gender.

1.2 Research questions:

The study is conducted to find out the answers of following questions:

1. What are sensory issues?
2. What are sensory issues of student with autism?
3. What are effects of sensory issues on education of student with autism as perceived by their teachers?
4. What are the effects of school environment on sensory issues of students with autism on the basis of gender?

2. Research Methodology

The type of the research was descriptive and conducted through survey with the help of a questionnaire. The population of study was all teachers teaching student with autism all over Punjab. The sample of the study consisted of 50 teachers and was selected purposively from different cities of Punjab. To achieve the objectives of study, researcher used a self developed scale. The scale consisted of two parts. The first part of scale consisted of demographic information of teachers (name, qualification, experience, school name and city name) and the second part consisted of questions about sensory issues of student with autism. Researcher used close ended questions with 5 options (often, yes frequently, sometimes, never, unsure). The reliability of the scale was estimated with the help of Cronbach alpha. The non-parametric analysis was performed on the data. Frequency of the responses along with percentages, Mean, ANOVA or t-test was performed to analyze the data. The following Table 1 shows the frequency of the respondents.

NO.	Statement	Often		Yes		Sometimes		Never		Unsure	
		Fre.	%	Fre.	%	Fre.	%	Fre.	%	Fre.	%
1	Tactile Does child with autism avoid casual touch from teachers?	12	24.0	16	32.0	18	36.0	2	4.0	1	2.0
2	Do the students become senseless or irritated when touched?	5	10.0	16	32.0	14	28.0	11	22.0	3	6.0
3	Do the students become upset by hands, clay, paints, sand, food or any other material?	-	-	13	26.0	18	36.0	15	30.0	3	6.0



4	Do they entail various textures, materials, paper, and toys?	6	12.0	16	32.0	19	38.0	6	12.0	2	4.0
5	Do the students always want to be hugged and kissed?	6	12.0	13	26.0	23	46.0	-	-	7	14.0
6	Vision Have they difficulty with hand writing, and drawing.	8	16.0	14	28.0	18	36.0	7	14.0	2	4.0
7	They distracted by brightly, shiny light, and flaming lighting	6	12.0	18	36.0	8	16.0	10	20.0	7	14.0
8	Have they poor skills in catching and throwing ball.	1	2.0	24	48.0	13	26.0	9	18.0	2	4.0
9	The students frequently blink, or clean their eyes.	1	2.0	15	30.0	14	28.0	19	38.0	-	-
10	Do they make poor eye contact with teachers?	2	4.0	14	28.0	12	24.0	18	36.0	3	6.0
11	Do they resist to change position of their head?	2	4.0	16	32.0	18	36.0	3	6.0	3	6.0
12	Vestibular Do they fall on chair sits and need support for floor sitting?	4	8.0	7	14.0	10	20.0	26	52.0	2	4.0
13	They touch furniture or walls while walking?	3	6.0	3	6.0	8	16.0	32	64.0	3	6.0
14	They always seem restless?	4	8.0	13	26.0	15	30.0	14	28.0	3	6.0
15	Do they hesitate while moving in playground	1	2.0	15	30.0	12	24.0	16	32.0	5	10.0
16	Auditory Do they avoid rush and loud noises in their surroundings	7	14.0	14	28.0	12	24.0	15	30.0	1	2.0
17	Do they get disturb by certain sounds	8	16.0	9	18.0	11	22.0	21	42.0	-	-
18	Do they speak or shout very loudly?	6	12.0	19	38.0	11	22.0	12	24.0	1	2.0
19	It seems that they are not listening you with louder voice?	3	6.0	12	24.0	15	30.0	14	28.0	5	10.0
20	Smell and Taste Do they complain about certain odors and avoid certain taste?	4	8.0	6	12.0	14	28.0	21	42.0	4	8.0
21	Sometimes they don't notice strong smells about food?	8	16.0	3	6.0	11	22.0	11	22.0	15	30.0
22	Do they have imperfect diet?	7	14.0	4	8.0	16	32.0	17	34.0	4	8.0
23	Behavior, Learning & Social Issues Do they engage themselves in boring games?	4	8.0	14	28.0	19	38.0	10	20.0	1	2.0
24	They don't understand concept of personal space?	3	6.0	15	30.0	19	38.0	7	14.0	4	8.0
25	Do they face difficulties in joining group activities?	7	14.0	26	52.0	8	16.0	2	4.0	5	10.0
26	They became easily overwhelmed unsatisfied?	4	8.0	17	34.0	13	26.0	10	20.0	4	4.8

Table 1: Frequency of the respondents along with their percentages on respondents views about sensory issues of student with autism

3. Findings

3.1 Tactile issues of students

According 36.0% teachers reported that students with autism sometimes avoid causal touch from teachers but only 4% teachers' reported that they never avoid causal touch from teachers.32% teachers reported that student with autism frequently become senseless or irritated when touched.36% teacher reported that they sometime become upset by hands,clay,paintsand other material.38% teachers reported that they sometime entail various textures,material,paper,and toys.46%teachers reported that they sometimes want to be hugged and kissed.

3.2 Vision issues of students

According 36% teachers reported that student with autism show difficulty with hand writing, and drawing.36% teachers reported that they frequently distracted by shiny light and flaming lighting.48%teacher reported that they frequently show poor skills in catching and throwing ball.38%teachers reported that they never blink or clean their eyes.36% teachers reported that they never make eye contact with teachers.

3.3 Vestibular issues of students

According to 36% teachers reported that student with autism resist sometime to change the position of their head.52% teachers reported that they never fall on chair sits and needs support for floor setting.64% teachers reported that they never touch furniture or walls while walking.30% teachers reported that they sometimes seem restless.32% teachers reported that they hesitate while moving in playground.

3.4 Auditory issues of students



According to 30% teachers reported that they never avoid rush and loud noises in their surroundings.42% teachers reported that they never get disturb by certain sounds.38% teachers reported that they frequently speak loudly.30% teachers reported that they sometimes seems that they are not listening your louder voice.

3.5 Smell and taste issues of students

According to 42%teachers reported that they never complain about certain odors.30% teachers reported that they are unsure that student with autism notice strong smells about foods or not.34% teachers reported that they have imperfect diet.

3.6 Behavior, Learning & Social Issues of students

According to 38% teachers reported that they sometimes engage themselves in boring games.38% teachers reported that they never don't understand the concept of personal space.52%teachers reported that they frequently face difficulties in joining group activities.34%teachers reported that they frequently became easily overwhelmed or unsatisfied.

4. Independent Sample T Test

To know the sensory issues of students with autism on the basis of their gender, Researcher used independent sample t.test. The following [Table 2](#) shows Levene's test output.

LEVENE'S TEST FOR EQUALITY OF VARIANCE				
f	sig	t	df	Sig(2-tailed)
.182	.671	2,77	46	.783

Table 2: Levene's Test for Equality

There is no significant difference between the sensory issues of student with autism on the both gender (male, female) specifically, our results suggest that sensory issues of student with autism doesn't vary on the basis of the student gender.

5. Conclusion

A successful completion of a activity needs a healthy processing of sensation. Sensory issues occurs when sensory signal are not detected or don't convert into appropriate responses. On the base of this study, student seems less tactile issues in the school environment but they show a high range of social and behavior issues in the school environment. Students have a little vestibular issue in the school setting. Results of this quantitative study recommend special education teachers and parents to take following steps:

- Special education teacher should use time rotation techniques.
- Special education teacher should use familiarization methods for taste and smell senses step by step.
- Teacher should focus on social and behavior issues of student with autism to reduce other sensory issues of autistic students
- Parents should also to focus on sensory issues of student with autism and should apply different methods to reduce the sensory issues.

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