



RESEARCH PAPER

Understanding Parental Needs for Managing Sensory Sensitivities in Autism: A Professional Analysis

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ABSTRACT

This study aims to measure and understand sensory sensitivities in children with Autism Spectrum Disorder (ASD), identify the challenges faced by their parents, assess the effectiveness of current support services, and identify the specific needs for further guidance and support through a comprehensive analysis of professional opinions and perspectives. Sensory sensitivities in children can have a significant impact on their daily experiences, influencing their comfort, behavior, and capacity to participate in ordinary activities. Professional viewpoints emphasize how these issues can greatly affect not only the child's development but also the family's daily routines, emphasizing the critical need for appropriate assistance and targeted solutions. A quantitative survey design was employed 100 professionals, 31% were special education teachers, 23% were speech therapists, 26% were psychologists, 10% were occupational therapists, and 10% were physiotherapists. Data were collected using a demographic information form and the need assessment Scale. Professionals reported current support options are not sufficient, with an average score of 1.74, indicating the need for a comprehensive intervention package (average score = 2.92). There is a strong preference for resources in Urdu (average score = 2.96) over English (average score = 2.84), showing a need for more accessible support in Urdu. A comprehensive interventional package should be developed to provide practical strategies for managing sensory sensitivities in children with ASD.

KEYWORDS

Children With Autism Spectrum Disorder, Interventional Package, Parental Needs, Professionals, Sensory Sensitivities

Introduction

Literature Autism Spectrum Disorder (ASD) is a complicated nervous system disorder that affects the developmental abilities and skills of an individual throughout life. Sensory disorder symptoms most of the time coexist with Autism Spectrum Disorder but there is not much knowledge about the early development and prevalence of these symptoms in children (McCormick et al, 2016). Sensory Sensitivity in children with ASD to their environment causes significant challenges to professionals. Some children are very sensitive to different stimuli, such as touching, sounds, smell, view, light, etc., whereas some children are very agile, they cannot sit quietly, and, of course, vice versa situations occur, when children demonstrate lower sensitivity and activity (Raudeliūnaitė et al, 2020).

Literature Review

Autism, also known as autism spectrum disorder or infantile autism, is a neuro-developmental disorder with an innate biological basis and unknown aetiology. No known

specific biological marker for autism exists. Autism is believed to be caused by multiple factors including a genetic component (Pratt, et al, 2017). The Greek term "autos," which means self-isolated or automatic movement, is where the word "autism" originates. The developmental impairment known as autism spectrum disorder is varied and multifunctional, characterized by an atypical pattern of development during the newborn and toddler years (Joon et al,2021).

Sensory stimuli like bright lights and loud noises can significantly impact an autistic child's ability to concentrate in the classroom. These stimuli can cause discomfort and disrupt the child's focus, leading to difficulty in processing information and carrying out tasks (Jones et al., 2020). Sensory challenges with textures and visual stimuli can significantly impact an autistic child's ability to engage with learning materials, leading to avoidance of tasks and hindering academic progress (Lindsay et al., 2013).

Individuals with sensory processing issues may struggle to control their reactions to stimuli, impacting daily tasks, social interactions, and adaptability. For example, a child with visual hypersensitivity may feel discomfort when exposed to certain lights. Conversely, a child with tactile hypo-sensitivity may seek out unusual textures for stimulation. It's essential to note that a child's refusal to eat may be linked to oral sensory problems (Mushtaq et al., 2024). Sensory sensitivities can significantly hinder autistic children in social interactions and collaborative activities essential for social learning and peer relationships. Overwhelming sensory input can lead to withdrawal, missed opportunities for skill-building and friendship, and misunderstanding from peers, hindering social development and meaningful connections (Smith & Smith, 2012). Autistic children may exhibit disruptive behaviors in the classroom due to sensory sensitivities. When overwhelmed by stimuli like loud noises or bright lights, they may struggle to self-regulate, leading to restlessness, emotional outbursts, and strained relationships with peers and teachers (Locke et al., 2010). To support children with ASD in managing sensory issues, it's essential to be proactive and attentive. Encourage them to express their feelings and remove triggers to prevent meltdowns. Providing comforting items like weighted blankets or favorite pillows can offer security, while regular exercise and outdoor swings can help release stress and provide sensory stimulation (Rudy, 2023).

The daily lives of autistic children are influenced by their sensory differences, especially in their participation in activities at home and their ability to engage in daily living activities. Sensory reactivity has a significant impact on their occupational performance, and disparities in sensory processing affect their lives and environments (Daly et al., 2022).

Material and Methods

Nature of Research

In this study quantitative method was used with survey design. Surveys systematically collect data on opinions, behaviors, and characteristics, using questionnaires, interviews, or online forms. They are essential in analyzing population trends and relationships (Fowler, 2014).

Population of Research

All professionals such as psychologists, speech therapists, teachers, occupational therapists, physiotherapists dealing with children with ASD were population of the study.

Sample of Research

Convenience sampling selects participants based on their availability and accessibility to the researcher. While practical for exploratory research, it has limitations in representing the population and generalizing the results, potentially introducing bias (Etikan, Musa, & Alkassim, 2016). Out of the 100 professionals, 31% were special education teachers, 23% were speech therapists, 26% were psychologists, 10% were occupational therapists, and 10% were physiotherapists. professionals were 37% male and 63% females. The professionals were 59% Master's degree holders, 37% M.Phil holders, and 4% Ph.D. holders. Professionals were from Lahore (11%), Gujranwala (10%), Rawalpindi (24%), Okara (11%), Narowal (16%), Multan (6%), Faisalabad (11%), and Gujrat (11%).

Instrument

A Needs Assessment Scale for Professionals has been developed to understand the sensory sensitivities in children with ASD. It aims to identify challenges faced by their parents, assess current support services, and determine specific needs for additional guidance and support through a comprehensive analysis of professional opinions and perspectives.. The scale includes a consent form and is structured into four sections focusing on sensory sensitivities, challenges faced by parents, current support services, and specific needs for additional guidance and support.

Reliability of Instrument

The Needs Assessment Scale for Professionals demonstrated good consistency among its 45 items, with a Cronbach's Alpha of 0.807. When standardized, the alpha coefficient increased to 0.850, indicating very high reliability. This means that the scale is reliable for measuring what it was intended to measure.

Data Analysis Technique

Data received from parents of children with ASD was tabulated and classified using SPSS (Statistical Package for Social Sciences). Parametric statistics were used to compare the replies of all parents of children with ASD.

Ethical Consideration

The researcher made every effort to conduct this research in an ethical manner. When approaching participants and obtaining access, ethical guidelines were followed. Participants were directly contacted, and the researcher rigorously adhered to the principle of informed consent. The researcher clearly explained the study's scope to all participants and assured them that any information they provided would be kept anonymous and confidential.

Results and Discussion

Table 1
Mean scores on sensory sensitivities in children with ASD

Do children in your institution show following sensory sensitivities?	Mean	Std. Deviation
hyper-sensitivity of touch	2.26	.828
hypo-sensitivity of touch	2.56	.675
hyper-sensitivity of smell	2.82	.482
hypo-sensitivity of smell	2.74	.487
hyper-sensitivity of hearing	2.72	.497
hypo-sensitivity of hearing	2.26	.828

hyper-sensitivity of sight	2.56	.675
hypo-sensitivity of sight	2.82	.482
hyper-sensitivity of taste	2.74	.487
hypo-sensitivity of taste	2.72	.497
hyper-sensitivity of vestibular (balance)	2.72	.497
hypo-sensitivity of vestibular (balance)	2.26	.828
hyper-sensitivity of proprioception (body awareness)	2.74	.487
hypo-sensitivity of proprioception (body awareness)	2.72	.497

Table 1 presents the professionals' interpretations of sensory sensitivity data for children in your institution, highlighting key findings and concerns. In terms of touch, the mean scores indicate a moderate level of hyper-sensitivity (2.26) and hypo-sensitivity (2.56). The standard deviation suggests variability in these responses, meaning that some children may be highly sensitive to touch while others might have reduced sensitivity. For smell sensitivity, children generally show higher sensitivity, with a mean score of 2.82 for hyper-sensitivity and 2.74 for hypo-sensitivity. The smaller standard deviations suggest that the responses are more consistent among children. Concerning hearing sensitivity, there is a notable distinction between hyper-sensitivity (mean = 2.72) and hypo-sensitivity (mean = 2.26). The higher mean for hyper-sensitivity indicates that children are more likely to have heightened sensitivity to auditory stimuli, while hypo-sensitivity is less prevalent. Regarding sight sensitivity, there is a balance between hyper-sensitivity (mean = 2.56) and hypo-sensitivity (mean = 2.82), indicating that children may experience both high sensitivity to visual stimuli and a reduced response to such stimuli. Taste sensitivity shows similar patterns, with children displaying moderate levels of both hyper-sensitivity (mean = 2.74) and hypo-sensitivity (mean = 2.72), suggesting variability in how children react to different tastes. In regards to vestibular (balance) sensitivity, children show higher mean scores for hyper-sensitivity (2.72) compared to hypo-sensitivity (2.26), indicating a greater tendency towards sensitivity in balance-related activities. Finally, proprioception (body awareness) scores show a slight preference for hyper-sensitivity (mean = 2.74) over hypo-sensitivity (mean = 2.72), suggesting that children may be more aware of their body position and movement than less aware

Table 2
Mean scores of professionals on strategies applied by parents

According to your experience, do parents uses any strategy to manage their child's following sensory sensitivities?	Mean	Std. Deviation
hyper-sensitivity of touch	1.74	.565
hypo-sensitivity of touch	1.66	.626
hyper-sensitivity of smell	2.06	.682
hypo-sensitivity of smell	1.76	.625
hyper-sensitivity of hearing	1.74	.565
hypo-sensitivity of hearing	1.66	.626
hyper-sensitivity of sight	2.06	.682
hypo-sensitivity of sight	1.76	.625
hyper-sensitivity of taste	1.66	.626
hypo-sensitivity of taste	2.06	.682
hyper-sensitivity of vestibular (balance)	1.74	.565
hypo-sensitivity of vestibular (balance)	1.66	.626
hyper-sensitivity of proprioception (body awareness)	2.06	.682
hypo-sensitivity of proprioception (body awareness)	1.76	.625

In table 2, it is evident that parents employ various strategies to address their child's sensory sensitivities, with varying levels of effectiveness. Touch sensitivities seem to be less frequently managed, particularly for hypo-sensitivity (average = 1.66) and hyper-sensitivity (average = 1.74), indicating that parents may find it challenging to address touch sensitivities effectively. When it comes to smell sensitivities, parents appear to implement

strategies somewhat more frequently, especially for hyper-sensitivity (average = 2.06) and hypo-sensitivity (average = 1.76). This suggests that managing smell sensitivities is relatively common but still moderately challenging. Similarly, hearing sensitivities show low levels of implementation for both hyper-sensitivity and hypo-sensitivity (averages of 1.74 and 1.66, respectively), indicating that parents may struggle to effectively manage hearing sensitivities. In dealing with sight sensitivities, parents use strategies more frequently for hyper-sensitivity (average = 2.06) compared to hypo-sensitivity (average = 1.76), reflecting a greater emphasis on managing more pronounced visual sensitivities. Taste sensitivities demonstrate a similar pattern to sight, with more frequent utilization of strategies for hypo-sensitivity (average = 2.06) compared to hyper-sensitivity (average = 1.66), indicating a preference for addressing reduced taste responses. Vestibular (balance) sensitivities are managed similarly to touch and hearing, with low implementation of strategies for both hyper-sensitivity (average = 1.74) and hypo-sensitivity (average = 1.66). This suggests that parents encounter difficulties in managing balance-related sensitivities effectively. Finally, for proprioception (body awareness), strategies are more frequently employed for hyper-sensitivity (average = 2.06) compared to hypo-sensitivity (average = 1.76), reflecting a higher priority given to managing hypersensitivity in body awareness.

Table 3
Opinions of professionals on parents difficulties

In your opinion, do parents face following difficulties due to sensory sensitivities of their child with ASD?	Mean	Std. Deviation
Understanding child's problems	3.02	.685
Understanding your child's Needs	3.70	.707
Solutions for your child's problems/symptoms	3.72	1.011
Places to look for help	3.32	.621
Family blame or shame	1.36	.485
Stress	1.88	1.043
Helplessness	3.06	1.346
Less empowerment	4.24	.916

In Table 3, there is summary of the challenges faced by parents of children with ASD due to their child's sensory sensitivities, as reported by professionals. Parents generally find it moderately challenging to understand their child's sensory problems (Mean = 3.02, Std. Deviation = 0.685), indicating that while some clarity exists, fully comprehending these issues remains complex. Understanding their child's needs is even more difficult (Mean = 3.70, Std. Deviation = 0.707), suggesting that recognizing and addressing specific sensory needs is a significant challenge for many parents. Additionally, finding effective solutions for managing their child's sensory symptoms proves to be a major struggle (Mean = 3.72, Std. Deviation = 1.011), reflecting the high level of difficulty in identifying and implementing successful strategies. When it comes to seeking help, parents experience a moderate level of difficulty (Mean = 3.32, Std. Deviation = 0.621), indicating that while some resources are available, finding appropriate support remains a challenge. However, feelings of family blame or shame are minimal (Mean = 1.36, Std. Deviation = 0.485), suggesting that stigma related to their child's sensory sensitivities is not a significant concern for most parents. Stress levels are relatively low (Mean = 1.88, Std. Deviation = 1.043), indicating that while stress is present, it is not overwhelmingly high. Despite this, parents still experience a moderate level of helplessness (Mean = 3.06, Std. Deviation = 1.346), reflecting a sense of inadequacy in managing their child's sensory issues. Lastly, parents feel significantly less empowered (Mean = 4.24, Std. Deviation = 0.916), indicating that many often feel inadequately equipped or supported in handling their child's sensory sensitivities effectively.

Table 4
Mean scores of professionals on support for resolving sensory sensitivity issues in children with ASD.

According to your experience, which of following support is available for parents to resolve problems of their child with ASD?	Mean	Std. Deviation
Parent support group	3.72	1.011
Interventional manuals	3.32	.621
Guidance from professionals	1.36	.485
Training program	3.02	.685
YouTube videos	3.70	.707
Resources on web(Google)	3.72	1.011
Website of international organization	3.32	.621
Books	1.36	.485
School teacher/staff	1.88	1.043

The professionals reported a range of support options available to parents of children with Autism Spectrum Disorder (ASD), with varying degrees of accessibility and effectiveness. According to the professionals, parent support groups emerge as a highly valued resource (Mean = 3.72, Std. Deviation = 1.011), offering significant support through shared experiences, advice, and emotional support for parents. Interventional manuals are moderately available and used (Mean = 3.32, Std. Deviation = 0.621), providing structured guidance for managing ASD-related challenges. However, they may not be as accessible or tailored to individual needs. Direct guidance from professionals is less available or utilized (Mean = 1.36, Std. Deviation = 0.485), suggesting that professional advice may not be as accessible or frequently sought by parents. Training programs for parents are somewhat available (Mean = 3.02, Std. Deviation = 0.685), offering practical skills and knowledge, though they may not adequately meet the needs of all parents. YouTube videos and online resources accessed through Google are popular and highly utilized (Mean = 3.70, Std. Deviation = 0.707; Mean = 3.72, Std. Deviation = 1.011), providing practical advice, visual examples, and easily accessible articles, forums, and advice. Websites of international organizations are moderately available (Mean = 3.32, Std. Deviation = 0.621), providing authoritative information and support, though they may lack personalization or accessibility compared to other resources. Books, on the other hand, are less frequently used as a support resource (Mean = 1.36, Std. Deviation = 0.485), likely due to their less immediate accessibility and practicality. Lastly, support from school teachers and staff is relatively less available or effective (Mean = 1.88, Std. Deviation = 1.043), indicating a need for better integration of school-based support with other resources for managing ASD.

Table 5
Mean scores of professionals on need of interventional package for parents

Questions	Mean	Std.Deviation
Are above support sufficient for parents to resolve sensory sensitivities of their child with ASD?	1.74	.565
Should there be any parent support interventional package for parents which may guide them in managing their child's sensory sensitivities?	2.92	.274
If your answer is yes to the above question, in which language should this interventional package be developed?English	2.84	.510
Urdu	2.96	.198
Another	1.00	.000

In Table 5, it is evident that current support options are not seen as adequate for parents to address sensory sensitivities in their child with ASD. The mean score is 1.74 with a standard deviation of 0.565, indicating that existing resources may not fully meet the specific needs of parents. There is a clear demand for a comprehensive parent support intervention package, as indicated by a mean score of 2.92 and a standard deviation of

0.274. In terms of language preference for such a package, the responses show a strong preference for Urdu, with a mean score of 2.96 and a standard deviation of 0.198, compared to English, which received a mean score of 2.84 with a standard deviation of 0.510. This indicates a need for resources that are more accessible to Urdu speakers. The option for another language garnered a mean score of 1.00 with a standard deviation of 0.000, suggesting minimal interest in alternatives beyond Urdu and English.

Conclusion

The opinions of professionals emphasize the significant challenges that parents encounter in managing their children's sensory sensitivities associated with ASD. Despite the available support, parents often feel ill-prepared and less empowered. There is a critical need for a customized intervention package, especially in Urdu, to better equip parents in effectively addressing these sensitivities.

Recommendations

- Develop a personalized intervention package for parents focusing on practical strategies to manage sensory sensitivities in children with ASD.
- Prioritize creating and distributing resources in Urdu to ensure accessibility for a wider range of parents.
- Enhance the availability of direct professional guidance, making it easier for parents to seek and receive expert advice on managing their child's sensory issues.
- Additionally, expand and promote parent support groups, as they provide essential emotional and practical support, allowing parents to share experiences and effective strategies.

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