

A Multidisciplinary Approach: Investigating Sustainable Interventions to Enhance Assent and Reduce Withdrawal in Autistic Children during Medical Procedures

Joseph Owuond¹ & Terri Howard²

¹Doctor of Education, Candidate

²Clinician and Doctor of Education, Candidate, National University, San Diego California

DOI: <https://doi.org/10.51244/IJRSI.2023.1011018>

Received: 31 October 2023; Accepted: 09 November 2023; Published: 05 December 2023

ABSTRACT

This study investigates sustained therapeutic strategies to improve assent and reduce disengagement in autistic children undergoing medical procedures, given the rising prevalence of autism spectrum disorder (ASD). The challenges faced by these children, stemming from sensory sensitivity, communication difficulties, and heightened anxiety, hinder their ability to provide assent and often result in withdrawal behaviors. The research aims to analyze existing interventions, such as sensory-friendly environments and personalized treatment plans, emphasizing the crucial role of collaborative efforts among healthcare professionals, behavioral therapists, and educators in delivering comprehensive and specialized therapies.

Methodologically, a literature review is employed to systematically assess the existing body of knowledge, allowing for a thorough examination of the difficulties experienced by autistic children during medical procedures and the exploration of potential solutions. The study's findings and policy recommendations contribute to a deeper understanding of and improvements in the assent and withdrawal challenges faced by autistic children. Proposed policy measures include the development of sensory-friendly healthcare facilities, individualized treatment programs, research funding, and the establishment of interdisciplinary healthcare teams. Implementation of these recommendations aims to create a more inclusive and assent-focused healthcare environment, ultimately enhancing the overall health outcomes for children with autism spectrum disorder.

INTRODUCTION

The prevalence of Autism is thought to be up to 1 in every 36 children in the United States, a nation renowned for its extensive healthcare infrastructure (Centers for Disease Control and Prevention, 2023). Statistically, more children than adults have Autism. In a survey, the CDC estimated that only 1% of people worldwide have Autism (Centers for Disease Control and Prevention, 2022). There is a higher-than-average prevalence of Autism among various racial and ethnic groups, according to the CDC's 11 ADDM sites, with rates of 2.9% for Black children, 3.2% for Hispanic children, and 3.3% for Asian or Pacific Islander children (Centers for Disease Control and Prevention, 2023). Notably, and as supported by CDC's data, Autism is the world's most rapidly increasing developmental disorder. It is no wonder that the Autism Cares Act allots \$1.3 billion for five years of research (AUCD, 2014). They use these resources to include projects aimed at figuring out the etiology of Autism, early diagnosis, therapies, and successful studies for people with the condition.

In the next five years, 500,000 children in the US on the autism spectrum will transition from childhood to adulthood (National Institutes of Health, 2022). The education sector and labor market for these children stand biased, marred with injustices of lack of equity and equality. Only 34.7% of students diagnosed with

Autism went on to pursue higher education and of those who did, less than 39% graduated (Cox et al., 2021). The low level of knowledge and comprehension of the unique needs and difficulties faced by students with Autism among institutions and their faculty members is an underlying factor contributing to these numbers. Additionally, only 21.3% of Americans with disabilities participated actively in the labor force in 2022 through either work or job-seeking activities, and 30% had part-time jobs (Bureau of Labor Statistics, 2022). If these anomalies were to be addressed, treatment options for Autism should be taken seriously, particularly for children.

Compared to the general population, autistic people are more likely to experience medical and psychological comorbidities. This greater vulnerability could be explained by common underlying factors or mechanisms linking various clinical characteristics (Lai et al., 2020). ADHD, anxiety conditions, irritability, obsessive-compulsive disorders, and mood disorders are typical mental comorbidities seen in people with autism spectrum disorder (ASD) (Croen et al., 2015). Epilepsy, immune illnesses, gastrointestinal disorders, difficulty with eating and nutrition, dental concerns, and sleep issues are all made more likely by Autism, according to Hirvikoski et al. (2016). These problems could lead to a higher need for medical assessments and evaluations, especially for children.

During medical treatments, autistic children frequently experience greater stress and worry, which can cause problems with assent and more withdrawal-like behaviors (Rodriguez et al., 2023). The average medical costs for children and teenagers with autism range from 4.1 to 6.2 times higher than those of their neurotypical peers. Families dealing with Autism may feel the effects of these costs rather strongly, particularly when their children dissent. For ethical and practical reasons, assent, which refers to the child's readiness and permission to engage in a medical operation, is essential (Rodriguez et al., 2023; Breaux & Smith, 2023). In order to ensure the child's safety and the procedure's success, withdrawal behaviors must be reduced. In order to improve consent and decrease disengagement in autistic children undergoing outpatient medical procedures, this research examines a multidisciplinary approach to designing long-lasting therapies.

Research Questions and Significance

This study aims to identify feasible strategies for improving assent and decreasing withdrawal in autistic children undergoing medical procedures. The study, therefore, tries to address the following study questions;

1. What difficulties and anxieties do children with Autism typically face during outpatient medical procedures that make them dissent?
2. What treatments are put in place to help autistic children assent and lessen their withdrawal during medical procedures?
3. What are the present interventions' limits, and how well do they meet the needs of autistic children undergoing medical procedures?
4. What interdisciplinary strategies could be developed to produce long-lasting interventions for enhancing assent and decreasing withdrawal in autistic children during medical procedures?

The significance of these study issues stems from the fact that they address fundamental difficulties in effectively caring for autistic children during medical procedures. They aid in our understanding of the challenges these kids confront, the development of comprehensive, long-lasting interventions, and the improvement of present therapies. Ultimately, these inquiries seek to improve the standard of care, safety, and well-being of autistic kids while fostering a more welcoming healthcare environment.

LITERATURE REVIEW

A complicated neurodevelopmental disease known as autism spectrum disorder (ASD) is characterized by

various symptoms and difficulties that impact behavior, social interaction, and communication. Approximately one in every 36 children in the United States has an autistic spectrum disorder (ASD), according to current data from the Centers for Disease Control and Prevention (CDC, 2023). The critical need for thorough research and solutions to support people with Autism in all facets of their lives is highlighted by the rising prevalence of the disorder.

For people with autism spectrum disorders, the change from infancy to adulthood is particularly difficult. There is an urgent need to address the educational and employment gaps that frequently persist in this community since, according to the National Institutes of Health (2022), 500,000 autistic children in the United States are predicted to enter adulthood in the next five years. Only 34.7% of students diagnosed with Autism seek higher education, and less than 39% graduate, according to research by Cox et al. (2021). The Bureau of Work Statistics estimates that only 21.3% of Americans with disabilities, including those with Autism, actively engage in the workforce. These figures demonstrate the need for efficient interventions and assistance programs that advance fairness and equality in the educational and job opportunities for people with Autism.

The higher chance of developing physical and psychological comorbidities is one of the major issues confronted by people with Autism (Lai et al., 2020). These comorbidities can include mental health conditions like epilepsy, immune disorders, gastrointestinal problems, dental problems, and sleep disturbances, as well as physical health conditions like ADHD, anxiety disorders, irritability, and mood disorders (Croen et al., 2015), frequently necessitate frequent medical evaluations and interventions. Due to their heightened sensitivity to sensory stimuli and communication challenges, children with Autism sometimes find going through medical procedures especially upsetting.

The difficulties autistic children encounter during medical treatments, such as elevated stress and anxiety levels and challenges in giving agreement for operations, are highlighted by research by Rodriguez et al. (2023). For ethical and practical reasons, assent, defined as a child's willingness and comprehension of a medical procedure, is essential. Additionally, withdrawal behaviors can make medical operations more challenging, increasing the danger to patient safety and decreasing the likelihood of a successful procedure. The financial burden on families of autistic children, whose medical expenses can be up to 6.2 times higher than those of neurotypical peers (Rodriguez et al., 2023), further emphasizes the necessity of treating these issues.

A study focusing on the literature review of children with autism spectrum in pediatric hospitals highlights that children with ASD who are hospitalized could exhibit difficult behaviors pertinent to informing withdrawals. According to published research, ASD youngsters experience more anxiety and behavioral issues than children without the disorder (Johnson & Rodriguez, 2013). Children with severe forms of ASD are more likely to display difficult behaviors like hostility, temper tantrums, destroying property, hitting, kicking, biting, punching, scratching, and throwing furniture, according to Hong et al. (2015). These difficult behaviors put much strain on families, caregivers, and healthcare professionals and risk hurting engaged individuals. The child's demand for attention, a desire for privacy or tactile stimulation, a specific object they want, like food, or—more frequently—frustration over their inability to properly speak and be understood—can all contribute to these actions (Johnson & Rodriguez, 2013). When creating more effective care plans and therapies for these hospitalized children, a better understanding of why a certain kid with ASD exhibits different behaviors can be very helpful.

In other studies, much is revealed concerning why children dissent and may sometimes withdraw from earlier ascents. The presence of multiple people whose duties may be unclear, loud noises, strange scents, and tactile stimuli are a few causes of patient agitation that frequently occur Scarpinato et al. (2010). The need to teach others to engage in ritualistic actions, pain, limited interests, and communication difficulties resulting from an inability to understand non-verbal signs like facial expressions and hand gestures can all

aggravate this agitation, according to Straus et al. (2019) and Scarpinato et al. (2010). Even decades-old studies reveal the same information concerning why children with Autism may refuse to attend treatment appropriately. Many autistic people find it difficult to adapt to new surroundings and struggle with change. They may also struggle to transfer their knowledge and abilities from one situation to another, which can be frustrating (Seid et al., 1997; Searcy, 2001). They might not understand figurative or abstract terms, but they may perceive language literally. It can be difficult for them to recognize rewards and respond appropriately, which affects their motivation and conduct. Additionally, sensory defensiveness, which includes increased sensitivity to textures, loud noises, and bright lights, can cause discomfort and irritation and conceivably lead to these challenging behaviors (Seid et al., 1997; Searcy, 2001). Effective support and interventions for people with Autism depend on recognizing and addressing these underlying causes and go a long way into enhancing assent and reducing withdrawal in autistic children.

Consideration should be given to some important recommendations in order to improve the care of autistic children during medical procedures, as such would reduce withdrawals and improve assent statuses. Scarpinato et al. (2010) provide succinct interventions that they document have been proven to work. Initially, designating a primary nurse can provide continuity and a reliable presence throughout their hospitalization. Stress and sensory overload can be lessened by establishing a peaceful and sensory-friendly environment through silent alarms, closed doors, “do not disturb” signs, and reducing pointless interventions (Scarpinato et al., 2010). Florence Nightingale’s nursing theory can support this intervention; providing a suitable environment for patients makes a difference in holistic medical care for patients (Medeiros et al., 2015). Clear, straightforward, and short language and augmentative communication tools like the picture exchange communication system are essential for effective communication. Prioritizing pain evaluation and management may include using self-report alternatives and topical creams with lidocaine as an active ingredient during painful procedures. Finally, respecting rituals and allowing them to be completed might give children a sense of power and lessen their propensity to act out.

While there are already available solutions to help autistic children through medical procedures, they have some drawbacks. The effectiveness of some therapies can vary based on the child’s particular traits and the particular process being used, and some interventions may not be personalized to meet individual needs (Doenyas, 2019). In his study, Doenyas (2019) highlights that because there is no known cause or treatment for autism spectrum disorder (ASD), parents of children with this disease frequently confront difficult circumstances. Owing to this confusion, some parents will look into various medical options, including probiotics and current dietary trends like gluten-free/casein-free and ketogenic diets. However, these treatments’ lack of specificity is a major problem because they could not work or be appropriate for all people living with ASD.

A case study of a 7-year-old autistic patient with tooth complications revealed that tailored treatments to patients are an evidence-based intervention that works. While perched on the mother’s lap, the patient was inspected. He was unfocused, unresponsive to spoken orders, and used vague gestures. He was energetic and spoke incoherently. He also made repetitive gestures (Prakash et al., 2016). The healthcare providers utilized the patient’s history. They engineered a specific treatment intervention of providing undercover oral midazolam to prevent intramuscular injection or needless restraint in preparation for surgery. The team achieved great success. They thus provide recommendations for deploying a customized treatment option for every patient. Also, healthcare providers may still need the training to execute working interventions effectively. In order to increase their effectiveness and ensure they are in line with the various needs of children with Autism, it is crucial to evaluate the shortcomings of present interventions.

The development of long-lasting therapies that can improve assent and lessen withdrawal in autistic children during medical procedures holds tremendous promise for interdisciplinary collaboration between healthcare professionals, behavioral therapists, and educators. This collaborative approach recognizes the numerous

needs of children with Autism and their complex difficulties in healthcare settings (Slim & Reuter-Yuill, 2021). Thorough pre-procedure preparation is essential to this process. Each child's particular communication needs and sensory sensitivity must be carefully considered. Healthcare personnel can establish a setting that minimizes sensory stressors and anxiety triggers by adapting pre-procedure planning to accommodate these needs (Magán-Maganto et al., 2017). This will lay the groundwork for a more successful medical encounter.

The interdisciplinary approach must include behavioral interventions to encourage cooperation and reduce fear. In order to help autistic children undergoing medical procedures, these treatments can depend on evidence-based practices and strategies (Campbell et al., 2020). Healthcare professionals and therapists can collaborate to make the child's experience more encouraging and less daunting by using behavioral tactics that prioritize positive reinforcement, desensitization, and open communication. Teachers are an essential part of this team effort. Educators can help autistic children get ready for medical interactions by providing social and emotional support, as mentioned by Cahyo Adi Kistoro et al. (2021). Through visual aids and social stories, educators may help youngsters become comfortable with medical procedures while fostering their development of coping mechanisms and communication skills (Riga et al., 2021). When undergoing medical treatments, autistic children can feel more prepared and less scared by incorporating education into the interdisciplinary approach.

The collaborative efforts of healthcare professionals, behavioral therapists, and educators must remain a focal point if long-lasting and sustainable therapies are to be achieved. The multidimensional character of the obstacles faced by autistic children during medical procedures calls for a complete, holistic approach, as seen in research by Shepherd et al. (2018). Continuous cooperation, knowledge exchange, and strategy adaptation are required to fulfill the particular needs of each kid. In the end, interdisciplinary approaches have the potential to dramatically enhance autistic children's healthcare experiences by assuring their security, comfort, and well-being throughout medical procedures.

RESEARCH METHODOLOGY

The research technique used for this study included a thorough and critical investigation of the already published literature from various sources, including peer-reviewed journals, official websites, and academic databases like Google Scholar. Data on the prevalence of Autism, the difficulties autistic children confront during medical procedures, current therapies and interventions, and their limitations were gathered through a systematic study of secondary sources. We accessed the most recent statistical data and official reports about Autism from government websites, including the National Institutes of Health (NIH) and the Centers for Disease Control and Prevention (CDC). Scholarly publications, research studies, and case reports pertinent to the subject of interest were located using Google Scholar. The chosen sources' quality, relevancy, and credibility were critically assessed to ensure the information was credible and founded on fact. In addition to providing a strong foundation for addressing the study's objectives and advancing the comprehension of sustainable interventions to improve assent and decrease withdrawal in autistic children during medical procedures, this rigorous methodology enabled a thorough synthesis of the body of existing knowledge.

FINDINGS

The results of this study provide important insights into key components of long-term therapies intended to improve assent and decrease disengagement in autistic children during medical procedures. First, given that one in every 36 children in the United States has been diagnosed with ASD (CDC, 2022), the study stresses the rising incidence of autism spectrum disorder (ASD) and the urgent need for efficient interventions. The

gaps in school and employment that autistic people encounter as they enter adulthood are also inspected, highlighting the significance of tailored interventions to advance equity and equality (Bureau of Labor Statistics, 2022; Cox et al., 2021). Physical and psychological comorbidities are also reported to be more common in autistic people, demanding frequent medical evaluations and interventions. Physical and psychological comorbidities are also reported to be more common in autistic people, demanding frequent medical evaluations and interventions. Due to their enhanced sensory sensitivity and communication difficulties, autistic children frequently experience stress and worry during medical procedures (Lai et al., 2020; Croen et al., 2015; Hirvikoski et al., 2016). This affects their capacity to grant assent and results in an increase in withdrawal behaviors. The study examines the solutions that are already accessible, from sensory-friendly surroundings to individualized treatment plans, and it emphasizes the possibility for multidisciplinary collaboration among medical professionals, behavioral therapists, and educators to develop comprehensive and long-lasting therapies (Scarpinato et al., 2010; Medeiros et al., 2015; Shepherd et al., 2018; Riga et al., 2020; Campbell et al., 2020). The study's findings highlight the variety of difficulties autistic children have during medical procedures and the opportunity for collaborative, specialized interventions to enhance their general healthcare experience and well-being.

RECOMMENDATIONS

Training for Healthcare Professionals

Doctors, nurses, and other medical staff members should have specific training in Autism Spectrum Disorder. The traits of ASD, typical comorbidities, and the particular difficulties autistic children could encounter during medical procedures should all be covered in this training. To ensure that autistic children can comprehend and participate in the decision-making process surrounding their treatment, healthcare professionals should also receive training in effective communication tactics, such as utilizing clear, concise language and visual assistance. Training should cover methods for reducing sensory overload in medical settings, such as using quiet spaces, dim lighting, and reducing unneeded stimulation. These strategies would aid in enhancing assent and reducing withdrawal in autistic children during medical procedures.

Specialized Treatment Plans

A crucial policy proposal encourages the creation and application of specialized treatment programs for autistic children undergoing medical procedures. These individualized strategies consider each child's communication preferences, sensory preferences, and behavioral features. Such a strategy acknowledges that what benefits one autistic child may not necessarily benefit another. Customized treatment strategies can be very helpful in boosting the acquiescence of autistic children during medical procedures by taking these unique aspects into mind. Children are more likely to feel at ease and secure in a medical setting when interventions are specially customized to their sensory preferences and communication skills. Children may be less anxious and stressed due to their increased level of comfort, making them more receptive to the process and more likely to consent. In contrast, a child who responds well to visual supports may need visual aids to comprehend and consent to the treatment. For example, a child sensitive to strong lights may benefit from lowered lighting throughout the process. Therefore, personalized treatment plans enable healthcare professionals to provide autistic kids with a more inclusive and assent-oriented healthcare experience, ultimately leading to greater patient results and satisfaction.

Creating Sensory-Friendly Healthcare Environments

A crucial policy recommendation is to create sensory-friendly healthcare environments through norms and standards, particularly for improving autistic children's acquiescence during medical procedures. These

settings emphasize reducing sensory stressors, including intense light, loud noises, and overwhelming sensations, which results in a cozier and more welcoming environment. As a result of lessening sensory overload, autistic youngsters are better able to handle the medical procedure, feel less anxious, and are, therefore, more likely to consent. The kid is given greater authority to participate actively in the decision-making process thanks to the comforting and encouraging setting, which eventually results in a more successful and consent-driven medical experience.

Research, Data Collection, and Monitoring

To improve assent in autistic children during medical operations, allocating research money and setting up data gathering and monitoring mechanisms is crucial. Policymakers can ensure that evidence-based and long-lasting strategies are discovered and applied by funding research to examine the effectiveness of various interventions and therapies specifically designed to meet the special requirements of autistic children. Healthcare facilities can track the experiences of autistic children in healthcare settings by putting in place reliable data collection and monitoring systems. Regularly evaluating these programs' efficacy and patient and family feedback offers insightful information for ongoing development. In addition to supporting the creation of more successful tactics, this data-driven methodology fosters a healthcare environment that actively hears and considers the opinions of autistic children and their families. Ultimately, this policy encourages a patient-centered strategy that builds confidence in the medical procedure and creates trust, leading to improved assent from autistic children.

An Interdisciplinary Approach to Treatment

A crucial policy recommendation is to encourage the creation of interdisciplinary healthcare teams of medical experts, behavioral therapists, educators, and patients and families who actively participate in the decision-making process surrounding medical operations. This strategy encourages communication between specialists with various specialties, enabling the development of specialized treatment plans that take into account the unique requirements of autistic children throughout medical operations. Open communication is promoted, and shared decision-making becomes crucial when autistic children and their families are included in the decision-making process. By giving autistic children the freedom to voice their preferences and worries, this inclusive approach helps them feel more at ease and confident during treatment. These kids are, therefore, more likely to consent voluntarily and with confidence, resulting in more positive medical encounters that put their well-being first.

CONCLUSION

In conclusion, this study emphasizes how crucial it is to address the particular difficulties autistic children confront during medical treatments. A more individualized approach to therapies that focus on justice and equality is required, given the increased prevalence of Autism and the gaps in educational attainment and employment. Due to their propensity for physical and psychological comorbidities, people with Autism require particular care when receiving medical treatment. Interdisciplinary cooperation and patient-centered techniques are essential in enhancing assent and minimizing withdrawal during medical procedures, even though existing therapies provide insightful information. By putting these suggestions into practice, stakeholders can open the door to a healthcare setting that is more welcoming and empathetic, thereby improving the well-being and healthcare outcomes of autistic children.

REFERENCES

1. AUCD. (2014). Autism Cares Act summary. https://www.aucd.org/template/news.cfm?news_id=10356&id=17

2. Breaux, C. A., & Smith, K. (2023). Assent in applied behavior analysis and positive behavior support: ethical considerations and practical recommendations. *International Journal of Developmental Disabilities*, 69(1), 111-121.
3. Bureau of Labor Statistics. (2022). Persons with a disability: Labor Force Characteristics – 2022. <https://www.bls.gov/news.release/pdf/disabl.pdf>
4. Cahyo Adi Kistoro, H., Setiawan, C., Latipah, E., & Putranta, H. (2021). Teachers' Experiences in Character Education for Autistic Children. *International Journal of Evaluation and Research in Education*, 10(1), 65-77.
5. Campbell, S. M., Hawes, T., Swan, K., Thomas, R., & Zimmer-Gembeck, M. J. (2023). Evidence-Based Treatment in Practice: PCIT Research on Addressing Individual Differences and Diversity Through the Lens of 20 Years of Service. *Psychology Research and Behavior Management*, pp. 2599–2617.
6. Centers for Disease Control and Prevention. (2022, April 7). Key findings: CDC releases first estimates of adults living with autism spectrum disorder in the United States. <https://www.cdc.gov/ncbddd/autism/features/adults-living-with-autism-spectrum-disorder.html>
7. Centers for Disease Control and Prevention. (2023, May 8). Higher autism prevalence and COVID-19 disruptions. <https://www.cdc.gov/ncbddd/autism/features/new-autism-spectrum-disorder-report.html>
8. Croen, L. A., Zerbo, O., Qian, Y., Massolo, M. L., Rich, S., Sidney, S., & Kripke, C. (2015). The health status of adults on the autism spectrum. *Autism*, 19(7), 814–823.
9. Hirvikoski, T., Mittendorfer-Rutz, E., Boman, M., Larsson, H., Lichtenstein, P., & Bölte, S. (2016). Premature mortality in autism spectrum disorder. *The British Journal of Psychiatry*, 208(3), 232-238.
10. Hong, E., Dixon, D. R., Stevens, E., Burns, C. O., & Linstead, E. (2018). Topography and function of challenging behaviors in individuals with autism spectrum disorder. *Advances in Neurodevelopmental Disorders*, pp. 2, 206–215.
11. Johnson, N. L., & Rodriguez, D. (2013). Children with autism spectrum disorder at a pediatric hospital: A systematic literature review. *Pediatric Nursing*.
12. Lai, M. C., Anagnostou, E., Wiznitzer, M., Allison, C., & Baron-Cohen, S. (2020). Evidence-based support for autistic people across the lifespan: Maximising potential, minimizing barriers, and optimizing the person–environment fit. *The Lancet Neurology*, 19(5), 434-451.
13. Magán-Maganto, M., Bejarano-Martín, Á., Fernández-Alvarez, C., Narzisi, A., García-Primo, P., Kawa, R., ... & Canal-Bedia, R. (2017). Early detection and intervention of ASD: A European overview. *Brain Sciences*, 7(12), 159.
14. Medeiros, A. B. D. A., Enders, B. C., & Lira, A. L. B. D. C. (2015). The Florence Nightingale's environmental theory: a critical analysis. *Escola Anna Nery*, 19, 518-524.
15. National Institutes of Health. (2022). Report } https://reporter.nih.gov/search/VEZ_i8UC_KP06bPySgc0XUiA/project-details/10609052
16. Riga, A., Ioannidi, V., & Papayiannis, N. (2021). Social stories and digital literacy practices for inclusive education. *European Journal of Special Education Research*, 7(2).
17. Rodriguez, K. A., Tarbox, J., & Tarbox, C. (2023). Compassion in Autism Services: A Preliminary Framework for Applied Behavior Analysis. *Behavior Analysis in Practice*, pp. 1–13.
18. Scarpinato, N., Bradley, J., Kurbjun, K., Bateman, X., Holtzer, B., & Ely, B. (2010). Caring for a child with an autism spectrum disorder in the acute care setting. *Journal for Specialists in Pediatric Nursing*, 15(3), 244–254.
19. Searcy, E. (2001). Helping the patient who has a pervasive developmental disorder. *Journal of the American Academy of Physician Assistants*, 14(10), 39.
20. Seid, M., Sherman, M., & Seid, A. (1997). Perioperative psychosocial interventions for autistic children undergoing ENT surgery. *International Journal of Otorhinolaryngology*, pp. 40, 107-113
21. Shepherd, D., Csako, R., Landon, J., Goedeke, S., & Ty, K. (2018). Documenting and understanding parent's intervention choices for their child with autism spectrum disorder. *Journal of Autism and Developmental Disorders*, 48, 988-1001.
22. Slim, L., & Reuter-Yuill, L. M. (2021). A behavior-analytic perspective on inter professional collaboration. *Behavior Analysis in Practice*, 14(4), 1238–1248.

23. Straus, J., Coburn, S., Maskell, S., Pappagianopoulos, J., & Cantrell, K. (2019). Medical encounters for youth with autism spectrum disorder: a comprehensive review of environmental considerations and interventions. *Clinical Medicine Insights: Pediatrics*, p. 13, 1179556519842816.