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Outcomes of Occupational Therapy for an Autistic Teen: A Case Study

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Abstract

This study sought to understand the outcomes of occupational therapy through interviews of a person with autism spectrum disorder (defined below), their family, and an occupational therapist. By interviewing each of these people, this study aimed to examine the impact of occupational therapy on the autonomy and independence of a young adult with autism and his family.

Keywords: autism, independence, autonomy, occupational therapy

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Background and Literature Review

The purpose of this study was to examine the perceived impact of occupational therapy which focused on autonomy and independence of an autistic adult and family through interview of an adult with autism, their family, and their occupational therapist.

Autism Spectrum Disorder (ASD) is defined as a developmental disability that can cause significant social, communication, and behavioral challenges (CDC, 2020a). Many people with autism may feel as though they struggle to fit into a world that is very rigid within societal rules of how to communicate and behave (Cooper et al., 2017). One avenue of therapy that serves this population is occupational therapy (OT).

Occupational therapy is the use of assessment and intervention to develop, recover, or maintain the meaningful activities, or occupations, of individuals, groups, or communities (“Occupational Therapy Practice Framework,” 2020). According to the American Occupational Therapy Association or AOTA, the mission of all occupational therapists is “to advance occupational therapy practice, education, and research through standard setting and advocacy on behalf of its members, the profession, and the public”. Their vision for 2025 is “...as an inclusive profession, occupational therapy maximizes health, well-being, and quality of life for all people, populations, and communities through effective solutions that facilitate participation in everyday living” (*About AOTA*, n.d.). Occupational therapists design client-centered and occupational-based plans for intervention.

OT’s often work with people who have autism. Autism can manifest itself very differently throughout the population, demonstrating a variety of strengths and challenges across the spectrum. For example, some diagnosed with autism spectrum disorder may find themselves

displaying skills such as hyperlexia, defined as being very precise and detail-oriented, a highly logical thinking ability, and exceptional honesty and reliability (“Strengths and Abilities in Autism,” 2018). However, people with autism can find themselves struggling with communication and social skills as well as fine motor and sensory skills. In a study done in 2021, the authors investigated the difference in fine motor development and communication between individuals with and without ASD and found that those with ASD were behind in their development in comparison (Taverna et al., 2021). Additionally, a longitudinal study found that children with autism often have differing reactions to sensory environments and are more avoidant and/or more prone to abnormal behavior that prevents functioning (McCormick et al., 2016). These challenges can result in a loss of independence or autonomy for the person with autism. According to a study published in the *American Journal of Occupational Therapy*, which surveyed adolescents with autism through the Daily Routine and Autonomy (DRA) questionnaire which provides critical information about the desire to be autonomous in adolescents with autism. It was determined that desire to be autonomous was significantly high (Lamash, 2018). OT attempts to help those with autism navigate social challenges or any other challenges where they desire support by using interventions such as occupational therapy using a sensory integration approach (OT-SI), organizing peer groups and activities, and addressing delays in motor development (Ologie, 2020).

Using a case study method, this pilot qualitative study sought to understand the perceptions of the impact of occupational therapy on autism and gaining independence and autonomy through a comprehensive interview of one participant with ASD and the participant’s family. This interview included the perceived impact that occupational therapy has had upon their lives. These interviews were transcribed and analyzed to gain an understanding of the

impact of occupational therapy on this representative participant and their family. A phenomenological qualitative study is appropriate for this case study because we reached our conclusion through the analysis of their individual perspectives, opinions, and lived experiences in the world (Moustakas, 1994).

The goal of this thesis is to investigate the perception of impact of occupational therapy on autonomy and independence through the testimonies of a young adult with ASD and their family, and their occupational therapist.

Methods

This case-study aimed to explore how occupational therapy is perceived impact a person with autism spectrum disorder (ASD). By interviewing a person with ASD, as well as their immediate family and their occupational therapist, we sought a deeper understanding of the impact of occupational therapy upon ASD. The idea for the topic of this honors thesis emerged from discussions with a young man with autism and his family who expressed interest in telling their story.

After receiving HSIRB approval, the family each signed a consent form to be interviewed given that their identities and information would be protected. The young man's occupational therapist was also asked to participate in the study but failed to respond. For the purpose of this thesis, the young man with autism will be known as "Riley", his mother as "Emma", and his twin sister as "Tessa". Three interviews, featuring Riley, Tessa, and Emma individually occurred and were then transcribed and analyzed to best determine the outcome of occupational therapy on Riley's independence and autonomy.

After each interview was concluded, the transcriptions were then thoroughly reviewed, coded, and sorted and analyzed to reach a better understanding about the impact of occupational

therapy on Riley's independence and autonomy. To ensure accuracy and trustworthiness, a second researcher was consulted on the codification and thematic analysis. The method of this analysis was derived from *A practical guide to using Interpretative Phenomenological Analysis in qualitative research psychology* (Pietkiewicz, 2014).

Findings

Each interview with Riley and his family was transcribed and analyzed. The interview with Riley's occupational therapist was not included, as they dropped out of the study. We conducted an analysis from the interview transcripts and four themes of perceived outcomes of occupational therapy intervention emerged:

1. Sensory Impact and Function
2. Interaction With Peers in A Social Environment
3. Facilitation of Mechanical Skills
4. Education and Support

Sensory Impact and Functioning

According to Riley and his family, occupational therapy played a "positive" role in helping Riley process various senses and then function as a result of the differing stimuli. In her interview, Emma attests that one of Riley's biggest challenges in elementary and middle school was "tolerating people's noises that bothered him" (personal communication, 2022).

Additionally, when he was younger, Riley had continued trouble with making and maintaining eye contact. However, after attending occupational therapy since childhood, Emma stated that Riley has learned how to function in those environments and that she has also been educated by Riley's OT on how to best assist him through those times.

Riley's perception of occupational therapy has also been positively impacted by his sensory work with his OT; he endorses that he enjoys occupational therapy, and his favorite part is listening to his Listening Therapy CDs (personal communication, 2022). There are a variety of noises that he listens to that one may here in everyday life, including car noises, and geese. Though at one point these noises may have been overstimulating and irritating, the listening therapy that he has received at OT has quickly turned them into his favorite aspects of therapy.

Additionally, Riley works with his occupational therapist on feeding therapy. Though he endorses snacks as “hard” (personal communication, 2022) for him, he still maintains that he enjoys working on with his OT on feeding therapy. R also enjoys other aspects of sensory input in occupational therapy. For example, he attests that he will go to the OT gym with his occupational therapist and jump on the trampoline, climb a ladder, and swing in a compressive blanket swing. All these differing sensory feelings help to regulate Riley and “help [him] with [his] body” (personal communication, 2022).

Interacting with Peers in a Social Environment

Riley also saw growth of in how he interacted with his peers as seen in the interviews. Riley's sister, Tessa, has stated that “his personal skills with people” (personal communication, 2022) has seen improvement over the course of his time in occupational therapy. She attended an occupational therapy session and made a note of just how his interacting with others had improved; “it was really great... [his friends] involved him and, like, asked him a bunch of questions and it went good” (personal communication, 2022). Some specific behaviors that have been improved upon were making eye contact and interacting within a group. Riley attends group occupational therapy, where they explore nature and the community all together.

Mechanical Skills

Perhaps the most significant finding is the impact on autonomy and independence that occupational therapy has upon the development of Riley's mechanical skills. Tessa testifies that when she and her twin were younger, he could hardly hold a pencil. However, after working with an OT and implementing various assistive devices, Riley can now write on his own. In addition to writing, Riley is now able to do other activities of daily living such as bathing, combing his own hair, and brushing his teeth – which Emma mentions used to be quite a struggle (personal communication, 2022). However, after OT intervention using different tools to help “wake up” Riley's mouth, Riley has learned to do this independently and has been cavity free for a while and Emma calls that a “big success” (personal communication, 2022). He also works on what he calls “ladders” and “wrestling” with his occupational therapist in order to “help him with his body...and muscles” (personal communication, 2022).

Family Education

In addition to components of treatment, Riley's family also attest to the education they have received on how to best support Riley. Emma endorses that her background in social work has helped in terms of how an occupational therapist may work within schools, but she also attests that OT has helped educate her and “others around [Riley] on...how he can best function” (personal communication, 2022) in environments that may be triggering. Also, Riley's family finds OT to promote family education by inviting family to sit on sessions, as Tessa experienced, or to be an active member of their loved one's care. In her interview, Emma describes how her relationship with Riley's occupational therapist has developed over time; she has gotten more and more comfortable with asking questions and bringing up areas of need in Riley's progress. Occupational therapy “covers such a wide, large umbrella of different skills” and having that

open relationship with the occupational therapist that encourages asking questions and learning (personal communication, 2022).

Discussion

Within the context of our literature, it is evident that occupational therapy has targeted several areas where Riley requires extra support. Riley, Emma, and Tessa support this in their interviews as presented in the emergent themes of sensory impact and functioning, interacting with peers in a social environment, mechanical skills and family education and support for young adults with autism.

In the previously cited study done by McCormick et al., the authors demonstrate how children with autism respond to various sensory environments in atypical or divergent methods compared to typically developing peers. Those with autism tend to express avoidant behaviors such as closing eyes, covering ears, and or/raising their voice until the triggering sense is absent (McCormick et al., 2016). Riley's therapist works with him through these avoidant behaviors by exposing him to different sensory activities such the Listening Therapy CDs or the compressive, weighted blanket swing. Riley's OT also targets feeding in their therapy session with Riley, helping him get used to the different tastes and textures of snacks. In focusing on sensory impact and functioning components in therapy, it helps Riley become autonomous by giving him the tools he needs to work through those avoidant behaviors and function independently.

Additionally, in the study authored by Taverna and others (Taverna et al., 2021), they concluded that those with autism were developmentally delayed in the categories of fine motor movements and communication. Riley and his occupational therapist work on both aspects of development in individual therapy and in group therapy. For example, in individual therapy, Tessa attests to the use of special tools that helped her brother with handwriting therefore eliminating a need for

reliance on others. Also, through group therapy, Riley and his group explore their community together. This enables Riley to learn the skills to communicate in a group effectively as well as engaging with his environment independently.

These results carry impact because they demonstrate, for this family, that occupational therapy has made a positive impact helping Riley develop his independence and autonomy. These results are significant because autism is not uncommon in our world today. In just the United States alone, over 5.4 million adults – not including children – have a diagnosis of autism (CDC, 2020b). This group of people, as demonstrated by the numerous studies cited, can have difficulty living and/or functioning independently. However, in accordance with this case study, people with autism, like Riley, may find it beneficial and empowering to receive occupational therapy services. Riley and his family have shown that occupational therapy can greatly impact one's independence and autonomy in a positive way by focusing on Riley's sensory impact and functioning, his interacting with peers in a social environment, and his mechanical skills. Through Riley's story, occupational therapists can witness firsthand how OT has given Riley – and his family – the tools for independent and autonomous success.

Limitations

This thesis is limited to one family's experience with occupational therapy and cannot be generalized to be every family's view of occupational therapy and its impact on autonomy and independence. Additionally, this study focused on growth of independence and autonomy and cannot be considered a complete, comprehensive appraisal of the impact of occupational therapy.

Directions for Further Research

This thesis presents other opportunities for research by inviting others to share their experience of occupational therapy on independence and autonomy by means of additional case

studies. This case study is limited to one family's perspective; other families may have a differing experience with occupational therapy.

Additionally, this study also invites the opportunity to examine how other therapies can impact independence and autonomy. This could be done by interview Riley and his family again or interviewing another subject that utilizes occupational therapy along with other kinds of therapy, such as speech and language therapy or physical therapy, for similar durations of time.

Conclusion

This case study suggests that occupational therapy has a positive impact on independence and autonomy for Riley, a teen with autism. The findings were significant in four categories: sensory impact and functioning, interacting with peers, mechanical skills, and additionally family education. Based on the testimonies of Riley and his family, what he has learned in occupational therapy has helped him to become more independent in the significant categories. Additionally, Riley's family also received guidance and support by Riley's occupational therapist, which will, in turn, help Riley best succeed in other environments. In accordance with the American Occupational therapy Association's vision, Riley and his family have demonstrated that receiving occupational therapy services does "maximize health, well-being, and quality of life" (*About AOTA*, n.d.).

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