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Exploring Parents' Experiences of Raising a Child with Sensorimotor Impairments and Expectations for Leisure Participation

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Exploring Parents' Experiences of Raising a Child with Sensorimotor Impairments and Expectations for Leisure Participation

Abstract

Background: The objective of this descriptive study was to study parents' experiences of raising a child with sensorimotor impairments and how leisure pursuits impact their expectations of their children. The development and participation in leisure activities is different for these children and could affect the parents' hopes and dreams for their child's future.

Method: Six children between 5 and 8 years of age, with sensorimotor impairments, participated in a movement program that was held for eight sessions at an outpatient pediatric clinic to address praxis and sensory processing impairments. Six parent dyads were interviewed during the fifth, sixth, seventh, or eighth session of the program. Areas addressed in the semi-structured interviews included parenting challenges, school experiences, and sensorimotor impairments effect on the child's leisure participation.

Results: Five themes emerged following the interviews: (a) nobody prepares you for sensory problems, (b) positive and negative school support, (c) when they already feel left out or behind, (d) I know the team sports are 100% sensory, and (e) life challenges.

Conclusion: The parents provided the practitioners with insight into their everyday lives, and this information is essential for making occupational therapy services more family-centered.

Comments

The authors disclose no conflicts of interest.

Keywords

sensorimotor impairments, family-centered care, parenting experiences

Cover Page Footnote

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Credentials Display

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Literature Review

The role of parenting is valued and familiar in American culture. Dunbar and Roberts (2006) explain that parents understand their children and play a large role in their development. They also discuss how parents are involved in meeting their children's everyday needs, and how they engage in activities that are emotionally supportive, such as talking to their children about their day or playing together. Parents know their children, and they can provide a detailed perspective on their needs. However, parenting a child with a disability may create significant concerns, altered expectations, and disruptions in family routines (Resch et al., 2010). This is particularly evident when parenting a child with a hidden disorder, such as a sensorimotor impairment.

Sensorimotor impairments involve a disruption in processing sensory information, which results in motor impairments. Sensory integration is the organization of incoming information and sensations to complete a task (Ayres, 1974). Poor sensory integration can greatly interfere with a child's ability to engage in everyday activities and learning. A decreased ability to organize sensory information prevents a child from focusing on tasks and demonstrating appropriate responses (Schaaf & Miller, 2005). Mailloux et al. (2011) explain that sensory integration difficulties can be exhibited in different forms, such as sensory modulation and praxis problems. Sensory modulation involves producing responses that are appropriate to sensory stimuli (Mailloux et al., 2011). Issues in sensory modulation occur when a child is overresponsive or underresponsive to stimuli, which is demonstrated through sensory seeking or sensory avoiding behaviors. Praxis involves ideation, motor planning, and motor execution (Dunn, 1997). Praxis difficulties can be characterized as a child's inability to conceptualize, plan, and execute a motor activity (Dunn, 1997).

Previous research demonstrates that sensory processing and sensory integration concerns can impact a child's functional performance in various occupations (Koenig & Rudney, 2010). Koenig and Rudney (2010) note that "by addressing problems in sensory integration and processing, occupational therapy practitioners can have a direct impact on children's or adolescents' ability to engage in play, school, and functional ADLs" (p. 440). Parents can provide information about their children's performance difficulties through explanations of their everyday routines, roles, and activities, which can lead to effective occupational therapy interventions. According to a systematic review on performance difficulties, children who have difficulty processing and integrating sensory information demonstrate (a) decreased quality and quantity of play skills and social participation, (b) difficulty in motor tasks for activities of daily living (ADLs) and instrumental activities of daily living (IADLs), (c) higher disturbances during sleep, (d) lower participation in school activities, (e) decreased academic achievement, and (f) decreased attention. Moreover, Cohn, Kramer, Schub, and May-Benson (2014) described parents' desires for their children to learn, such as learning to regulate their emotions or behaviors, because it played a large role in their children's social participation, skill development, and confidence (Cohn, Kramer, Schub, & May-Benson, 2014). Limited research has been conducted, however, regarding a parent's expectations for leisure participation for his or her child with sensorimotor impairments and how providing a just right challenge with leisure activities can influence the parent's expectations.

Leisure participation is also influenced by a child's sensorimotor skills. Exploring a parent's perspective regarding leisure restrictions in his or her child's life may assist therapists in improving the child's participation in leisure activities by implementing family-centered principles. According to Powrie, Kolehmainen, Turpin, Ziviani, and Copley (2015), occupational therapists can alter a child's

social context to improve his or her participation in leisure activities if a parent expresses concerns with the child's ability to participate socially with peers. In their study, the researchers found that children and adolescents use leisure to prove their abilities and worth and to overcome stigmas regarding their disabilities (Powrie et al., 2015). One avenue of treatment to promote leisure participation involves using sensory integration approaches. Cohn, Miller, and Tickle-Degnen (2000) discuss that parents have suggested that occupational therapy using sensory integration approaches has had a positive impact on the well-being of the family.

In addition, Cohn et al.'s (2000) research study aimed at reflecting on how parents describe their hopes, concerns, and expectations regarding their children's occupational performance through the use of sensory integration approaches. Their study did not, however, examine parents' expectations for their children in regard to leisure pursuits. Researching parent perspectives on sensory integration approaches with leisure participation could increase occupational therapists' understanding of how to promote a child's involvement in leisure activities, which could lead to reducing stigma and increasing peer acceptance. In a systematic review, May-Benson and Koomar (2010) reviewed 27 studies about sensory integration effectiveness. The results indicated positive outcomes in sensorimotor skills and motor planning, socialization, attention, behavioral regulation, and reading. More research that aims to understand how sensory integration principles can impact a child's success in leisure pursuits could assist occupational therapists in designing programs aimed at improving the child's participation in leisure activities.

Furthermore, family-centered care is an important aspect of occupational therapy when working with children. Family-centered principles involve providing interventions tailored to the unique needs of the family that support the family dynamics and strengthen their functionality (Fingerhut et al., 2013). Bleser, Young, and Miranda (2017) discussed that incorporating the family into the health care team is essential for improving the quality of care the patient receives. Fingerhut et al. (2013) discussed the fact that therapists who work with children used the term family-centered rather than client-centered because caregiver education and participation is integral for successful interventions. Resch et al. (2010) explain that a parent has more influence on the well-being of the child than any other individual or health care provider. Therefore, research studies in this area are critical for the occupational therapy profession in order to further understand parent experiences and to tailor services to their needs.

Exploring parents' experiences of raising a child with sensorimotor impairments through descriptive research is meaningful for the occupational therapy profession because it gathers data from the parents who are living with the child with a sensorimotor impairment. Through this understanding of the parents' experiences, occupational therapists can develop interventions that are family-centered and support the child's success in the community. Fingerhut et al. (2013) explain that incorporating the parents, and the parents' concerns, into therapy services is integral for making therapy more effective. The purpose of this descriptive case study was to explore parents' experiences of raising a child with sensorimotor impairments and their expectations for leisure participation.

Method

Research Design

A descriptive research design was used to describe the experience of parenting a child with sensorimotor impairments. Stanley (2015) explains that descriptive research allows a researcher to study a phenomenon in-depth and in an everyday context. This case study was designed to ask the question, What are parents' expectations for leisure pursuits for their children with sensorimotor

impairments? Therefore, the researchers analyzed the transcripts of the parent interviews to identify emerging themes related to parenting a child with sensorimotor impairments and the child's leisure participation.

Participants

Convenient sampling was used for selecting the participants, as the children participants were required to have sensorimotor impairments that influenced their ability to modulate their behaviors and successfully complete motor activities necessary for leisure participation. The movement program focused on providing the children with the just right challenge to ensure success in social interactions and with modulating their behaviors and engaging in dance activities. The parents of the children participating in the movement program were selected for interviews through the circulation of flyers. The interviews were conducted at a pediatric outpatient facility in the southeast region of the United States. For the children to participate in the movement program, they were required to be between 5 and 8 years of age, have sensorimotor impairments, and currently be receiving therapy services for sensorimotor impairments.

Procedure

The study was approved through an Institutional Review Board. Informed consent was documented verbally and through a written format preceding the interviews. Six parent dyads participated in semi-structured interviews that lasted between 30-50 min during the fifth through eighth session of the movement program, which allowed the parents and the children to have four movement sessions prior to the parent interviews to discuss the children's leisure experiences. Before conducting the interviews, a project management plan was developed to ensure the project was systematically run (Stanley, 2015). Once the plan was designed, the interview questions were developed. The questions focused on the parents' perspectives of raising their children with a sensorimotor impairment. Stanley (2015) suggests developing topical questions that will help specify the information being sought. Therefore, the interview questions were centered on daily routines, social skills, ADLs, school, and leisure activities. Interviews were conducted in a private, quiet therapy room at the pediatric outpatient center and were digitally recorded. The principle investigator conducted four of the interviews and an occupational therapy student conducted the remaining two interviews. Data was de-identified by using pseudonyms with transcribed interviews and other research documents. Password-protected computers were used to ensure confidentiality of the documents.

Research Analysis

Data were transcribed verbatim by replaying the audio recordings and manually typing out the data. Recordings were reviewed numerous times and the transcriptions were checked for accuracy by the principle investigator and the assisting occupational therapy student to ensure correctness of transcriptions. The descriptive methodology was based largely on the work of Stanley (2015). The steps for data analysis were based on building understanding and connecting parts to the whole (Stanley, 2015). To begin, notations were taken of the interviews to describe what was happening. Themes were developed in chunks when repetition and patterns were discovered. When a word appeared significant, that word would be reviewed in relation to the context of what was being expressed in the interview. The words and patterns were color coded and mapped freely on the interview paper forms to provide an audit trail for the decision-making of developing assertions from the data. Ten assertions centered on relationships, which were categorized into five themes to describe the nature of the phenomenon of

parenting a child with sensorimotor impairments. Each theme was compared in the six transcripts to ensure that the themes were reflected throughout all of the parent interviews.

To ensure rigor, multiple strategies were put into place throughout the research process. The principle investigator and the occupational therapy student, who assisted in conducting the interviews, maintained a reflexive journal on their biases prior to each interview. Stanley (2015) explained that journaling about bias assists the researcher in taking a fresh perspective in order to describe the participants' experiences fairly. The reflexive journaling included personal preconceptions or biases regarding parenting a child with a sensorimotor impairment, which included an in-depth analysis of how the researcher's background might influence the interview and interpretation of the results to reduce bias and establish validity.

Peer debriefing also occurred routinely among the principle investigator, the occupational therapy student, and the research instructor regarding the interviews, the research process, and the incidents of subjectivity. Another strategy used to ensure rigor was the development of an audit trail, which was discussed earlier, regarding developing themes. The audit trail was maintained with colored assertions on a paper document, and it assisted in reporting on how decisions were made during the development of the data. Lastly, member checking occurred with three of the six participants who consented to the member checking process. This allowed the participants to evaluate if the results accurately reflected their experiences of raising a child with a sensorimotor impairment.

Results

All of the participants were parents of a child with sensorimotor impairments, aged 5 to 8 years, who participated in the movement program. Five themes emerged regarding the lived experiences of raising a child with sensorimotor impairments. The themes included (a) nobody prepares you for sensory problems, (b) positive and negative school support, (c) when they already feel left out or behind, (d) I know the team sports are 100% sensory, and (e) life challenges.

Nobody Prepares You for Sensory Problems

All of the parents described expectations regarding consistency in routines for their children. Many of the children required structure in their day, and the parents expected they could be more spontaneous with their daily routines than what they felt they were allowed. They explained that their children with sensory concerns were often not flexible regarding routines and could have a meltdown if a routine deviated. In addition, all six of the parents discussed altered expectations regarding participation in activities, especially leisure. Many of the parents discussed how they did not expect their children to be engaging in therapy while typically developing children were engaging in other activities and competitions. Phyllis described her altered expectation in the following reflection: "I always expected to have activities with my child, dance class, soccer, basketball, some kind of physical activity. I didn't expect that to come in the form of physical therapy and occupational therapy."

The children's sensorimotor impairments appeared to play a large role in the parent's expectations for their children as well. Some of the parents discussed how they had expectations based on their children's milestones, not what other people might expect from typically developing children. They also discussed having different expectations for physical movement due to sensorimotor impairments. Wendy reflected on her adapted expectations regarding physical movement for her child in school. She said:

I'm not saying I want her to be on the jump rope team at her school . . . but I would like for her to at least be able to make it through gym class during jump rope for heart time without a meltdown because she can't physically do it.

The parents also discussed how they did not expect to have a child with a sensorimotor impairment and felt unprepared for that experience. One parent discussed how she did not expect to have a child that had to be carried through the grocery store because that experience was too stimulating for the child, and she felt unprepared to handle it. More specifically, Georgia stated:

Nobody prepares you for, you know, sensory problems. And if you had a child that had like Spina Bifida, and you knew what to expect, and that was an obvious birth defect, an obvious disability, you could plan for it. But sensory problems don't present like a disability. And so, you don't get a handbook with it, and you don't get recommendations . . . you sort of figure it out as you go and it makes it so much more difficult.

Overall, the parents felt like their expectations for their children were different from what they envisioned raising a child would be like, even when compared to their other children. The child's sensorimotor impairments created altered expectations for routines and activities, physical movement, and expectations for parenting, and they felt unprepared for these experiences.

Positive and Negative School Support

In this theme, all of the parents discussed how school support, such as school policies and administration, impacted their children's school experiences, which was also relevant to their expectations of leisure pursuits for their children, as their school performance influenced the child's self-esteem and desire for participation in outside activities. Two of the parents of children in preschool seemed pleased with the positive support their children were given, but they felt their children had not really entered into the school system yet. One parent stated:

It's been fantastic, they work with her weekly, she is in public school and pre-school. At this point I would like to see her fit in with her classmates. I'm interested to see how it's going to play out as she goes into kindergarten.

One parent of an older child explained that the school was good at matching personalities to determine which teacher would best serve her child. The other parents felt they did not receive any support, or the support they did receive was not sufficient for addressing their children's needs. Some supports that were given to the children were sensory breaks, exercise balls, rulers, and move and sit cushions. Barbara reflected on the school support her child receives and stated: "They work with us to a certain extent, but I feel like they fail her by not giving her more. I mean, she needs one on one."

Some parents felt that they were receiving insufficient support because their child did not score low enough to qualify for certain services. They discussed that school-based services are limited because they are based on assessment outcomes. Their children had to present two standard deviations below the mean to get services. One parent discussed how she asked to see her child's assessment scores because she was shocked that she did not qualify for services. She expressed that she was surprised, because her child needed to be in the eighth or ninth percentile in handwriting to qualify for services, and she felt that a parent would want to address this issue as early as possible. Wendy further elaborated: "Apparently, you can't be able to write at all to qualify. And she wouldn't have scored that high if we hadn't been working on it outside. Almost like Catch 22."

The parents also felt that there was a lack of school support because the school was not educated regarding what the child needed to support his or her learning. One parent discussed how teachers did

not understand that her child needed movement to meet his sensory diet and needed more than just walking across the room. They also felt that their children could do well, if the support was available, but the school was not willing to work with a child with sensory needs. Georgia provided a scenario regarding a lack of support from the school in the following reflection:

In preschool, she had a little Velcro patch underneath the table, and she would sit and rub it to the point she would have blisters on her fingertips, but she would sit still and listen. The kindergarten teacher wouldn't do the Velcro patch for her unless she got an IEP. Chewing gum, same thing, even though it helps her calm down, so they are very unsupportive.

Overall, the parents discussed the support their children received, but the majority felt that the school should do more. Many of the parents felt that their children did not meet the requirements for services, but they would not have scored that well if they had not been receiving outside help. Limitations to school support appeared to be a lack of the school personnel's knowledge regarding children with sensorimotor impairments, and the use of sensory strategies to support participation and successful engagement in the daily routines of the school setting.

When They Already Feel Left Out or Behind

In this theme, all of the parents discussed how their children's sensorimotor impairments affected their children's social and leisure participation because of impaired motor skills. Through their reflections, many of the parents expressed that their children were hesitant to engage in typical leisure activities for fear of ridicule from their peers or from feeling left behind. The parents believed that motor deficits were to blame for this fear of being teased by their peers. Georgia stated:

Most of the time, where she has to learn a series of things or has to interact with her peers, it takes about 2-3 classes before she realizes [and states she isn't] good enough, and she doesn't want to go anymore. She's afraid of being made fun of.

The parents also discussed how their children felt isolated from their peers because of their sensorimotor impairments. The parents felt that this occurred as a result of missing social cues, often referred to as the hidden curriculum. The parents expressed that they wanted their children to feel accepted by their peers, regardless of difficulties in motor tasks. Many times, the child felt left out or left behind because he or she could not keep up. Yolanda stated: "So, I think that when they are in something with typical kids who don't have motor planning issues and they see those kids gaining those skills quickly, then they already feel left out or left behind."

Social participation appeared to be an area that the children feared because of their sensorimotor impairments. Their delays in motor skills inhibited their social and leisure participation with their typically developing peers, who could complete motor tasks. As a consequence, they felt isolated because of their inability to keep up with their peers.

I Know the Team Sports are 100% Sensory

Sensorimotor concerns played a large role in the children's participation in leisure activities. Many of the parents stressed the importance of keeping their children active, but felt like many sports had an adverse effect on participation because of their children's sensorimotor concerns. Many of the children felt overstimulated while engaging in a leisure activity, or they felt like their ability to motor plan was not sufficient to engage in a sport. Teresa discussed how t-ball was overstimulating:

In t-ball, he did not like the crowd. He didn't want to go in the dugout, and if he did go he didn't want to stay in there. He would freeze when it was his turn to bat because he could see everyone.

Georgia felt that her child's lack of participation in leisure was largely sensory related as well. She stated:

I know the team sports is 100% sensory. She doesn't like the interaction. She doesn't like people touching her. She doesn't like things being thrown at her. She doesn't like people running at her. Yea, the noise, the whistles! Whistles are like sensory kids' demons. She hates them.

During this study program, adaptations occurred in the movement program to accommodate sensory over and underresponsiveness. The therapeutic adaptations contributed to the children's success in the program. The movement program implemented sensory input, such as oral stimulation (blowing bubbles, chewing gum, eating sour candy), proprioceptive input (wall push-ups, exercise ball, contralateral extensions), vestibular stimulation (log rolls), and auditory stimulation (metronome, music), as they were needed. All of the parents discussed how the program supported their children's sensorimotor needs for participation and allowed the children to be successful, which improved self-esteem. Furthermore, providing sensory stimulation through auditory, proprioceptive, oral, and vestibular input appeared to benefit the children as well. Wendy stated: "I'm actually surprised how well she did with the tap last night practicing, trying to keep up with the feet and the clicking of the metronome. She did better, really!"

Leisure activities can be overstimulating and prohibitive for a child with sensorimotor impairments. The parents clearly identified that leisure programs that are open to adaptations can assist in meeting the child's sensory needs through different movement experiences as well as through their sensorimotor goals.

Life Challenges

All of the parents discussed how their children's sensorimotor impairments affected their ability to complete ADL tasks. Many explained how toileting, feeding, grooming, and dressing resulted in difficulties due to motor or sensory issues. A disruption in a routine affected their children's desire to engage in ADLs or leisure activities. One mother discussed how her child did not want to take a bath when her routine was disrupted and would have a meltdown. Many parents explained how they had to set aside more time for the child to complete ADLs, particularly those requiring fine motor skills. Teresa explains: "Buttons are mainly frustrating. Sunday mornings you have to know to adjust time for what he calls church clothes, which include any shirt that has to be buttoned."

Some parents also expressed how sensorimotor impairments could result in safety concerns with ADLs. Food stuffing during feeding activities was a concern for one mother because her child would stuff food in his or her mouth for the proprioceptive input. Another parent explained how her daughter would rip hunks of hair out of her head when brushing it because she was underresponsive to that stimulus. One parent had to delay toileting for her child due to sensorimotor impairments, which postponed her moving up in her day-care class. She felt her daughter was very bright and would have benefitted from being in a room with older children. Safety concerns also came into play regarding dressing in the winter. "So, the tactile defensiveness has been at times really challenging to deal with because it's like the middle of winter and he doesn't want to wear socks or gloves to play in the snow."

Overall, sensorimotor impairments appeared to play a role in the children's routines and ability to engage in ADL tasks to stay on target for age-appropriate progression of classes. The parents discussed how toileting, feeding, grooming, and dressing were impacted. Safety concerns came into

play due to sensory avoiding and seeking behaviors, which decreased their ability to complete ADLs and leisure tasks throughout their day.

Discussion

Understanding parent expectations and experiences with leisure and daily challenges are important to incorporate family-centered principles. The parents from the current study expressed many concerns regarding parenting and their leisure expectations that are important to consider for making services more family-centered. According to the results, the parents discussed that adaptations to routines and expectations for their children's participation in activities were necessary. Their children's sensory concerns often created a need for consistency to avoid meltdowns, which is consistent with a study by Cohn et al. (2014). The parents also expressed concerns about regulating their children's emotions or behaviors. Something that the current study added to the occupational therapy profession is that leisure participation was greatly affected by the children's sensorimotor impairments.

The parents in the present study discussed feeling overwhelmed and unprepared because their expectations for raising a child were different than they envisioned. Furthermore, the parents stated that sensorimotor challenges influenced leisure participation for the children in the study because they either felt overstimulated when engaging in an activity or had inadequate motor skills compared to their peers. The parents discussed the challenge of identifying a program that could meet their children's sensory needs. Missiuna, Moll, Law, King, and King (2006) discussed in their study how many parents were unsure if they should challenge their children to participate in activities that their children avoided. They also discussed how parents were hesitant to push their children to participate in leisure activities for fear of lowering their children's self-esteem, and they were concerned about finding a program that was accommodating of their children's sensory needs (Missiuna et al., 2006). The parents in the present study also connected their concerns to leisure participation if their children were not performing at the same level as others, and they feared that their children would be ridiculed by their peers. What this study contributed was that the parents were pleased with their children's participation in leisure activities when the activities provided the just right challenge to promote success with their children's participation.

The parents discussed the school's lack of understanding of sensorimotor impairments and criteria for support services, which reached all students who needed them. In addition, the school was not providing adaptations so that their children could regulate their arousal and alertness to improve their academic performance and, consequently, their leisure pursuits. Missiuna et al. (2006) explained that parents of children with a developmental coordination disorder felt their children were not receiving services in the school system because the school did not have the resources. Missiuna et al. (2006) also reported that teachers often do not understand the child's difficulties and may feel the child is not putting forth effort. Self-esteem was a factor for the children in the present study because self-esteem was reduced when the child could not perform well in academics, leisure activities, and socialization. What this study contributes to the occupational therapy profession is that a child's participation improves when he or she feels successful in activities.

Moreover, the parents expressed that their children were concerned about their ability to keep up with their peers when engaging in gross motor activities, which provides them with a common way to socialize and participate in leisure activities. The parents claimed that their children were fearful of ridicule from their peers when performing academic and leisure activities, which negatively impacted their self-esteem. Missiuna et al. (2006) discussed how self-esteem difficulties appear to be heightened

when a child enters the school system, which can play a role in the child's desire to participate with his or her peers. This is also highlighted in regard to children's desires to participate in leisure activities with their peers, as they are more willing to participate when they are successful at the activities.

Many parents from the current study also discussed the difficulties that they faced regarding ADL challenges with their children (dressing, toileting, grooming, feeding). Setting aside more time for the child to engage in ADLs was required. Previous research has shown that sensory processing and sensory integration concerns can impact a child's functional performance with ADLs (Koenig & Rudney, 2010). These authors reported that sensory overresponsiveness (sensitivity to stimuli) disrupted family routines and made self-care performance more challenging (Reynolds & Lane, 2008). Difficulty in self-care performance concerns was also an issue in this study, but this study adds to how these issues influence the child's participation in leisure pursuits. These ADL performance difficulties influenced the parent's expectations for their children and how their children would be able to perform with other children in leisure activities when their ADL performance was negatively impacted.

In conclusion, the parents had concerns that centered on leisure participation and how sensorimotor impairments influenced adaptations to routines and expectations, school support, social participation, and ADLs. Understanding the parent's experiences raising a child with sensorimotor impairments and their expectations for leisure participation is essential for providing family-centered care and both improving whole family's quality of life and the child's participation in leisure pursuits.

Implications for Practice

Occupational therapy is founded on client-centered principles, which emphasizes the importance of understanding client needs (Cohn et al., 2014). Viewing the family and the child as a unit is essential when providing services to children because the family works as a dynamic unit, and the child's success is dependent on that unit. Findings from this study encourage occupational therapists to take initiative in improving services by incorporating parenting experiences and expectations for leisure pursuits into interventions. Moreover, understanding parent experiences will help occupational therapists teach parents to advocate for appropriate services for their children, so that their children are socially and academically successful. This may include collaborating with para-educators, physical education teachers, and school administrators regarding the needs of children with sensorimotor impairments to improve their ability to perform school tasks and engage in leisure activities successfully.

In addition, occupational therapists also have an opportunity to provide these children with the tools they need to modulate their arousal levels and alertness to improve their role as a student, family member, and peer in the community. Occupational therapists can address social participation by engaging the child in meaningful occupations in the school and community setting, encouraging participation in activities that increase peer interactions, and conducting activity analysis to determine how to modify activities to improve every child's participation and success (Bazyk & Downing, 2017).

For instance, occupational therapists can play a role in recommending sports for children that best match their sensory needs and help to promote health, wellness, and social participation. Kirkpatrick (2012) discussed the importance of understanding a child's motor coordination, praxis level, and muscle tone to determine which sport may be best suited for the child. For instance, the parents in this study discussed how sensorimotor concerns influenced their children's ability to play a sport if they become over-stimulated. Kirkpatrick (2012) supported this concern by suggesting sports that have the appropriate energy levels, dynamic components, individualization, and motor coordination levels. These factors can help occupational therapists assist parents in finding leisure opportunities for their

children that are appropriate and that can elicit positive emotions. In addition, Powrie et al. (2015) discussed the importance of supporting youth participation by altering the environment, such as with noise canceling headphones, when participating in a bowling match.

This study illustrated how sensorimotor impairments influenced a child's ability to complete ADLs. Koenig and Rudney (2010) stated that occupational therapists should assess a child's ability to perform everyday occupations, or ADLs, in the school and home to determine the individual factors that may be related to the adverse coping strategies when completing ADLs. For instance, an overresponsive child may engage in the task of grooming differently by avoiding the task because of the overwhelming stimuli, while a child who is underresponsive may seek the task with too much force for more sensory input. These adverse coping strategies should be taken into consideration by an occupational therapist when developing a treatment plan with the family.

Limitations and Future Research

Limitations included a small sample, convenience sampling, limited member checking, and the timing of the interviews. The small sample may make it difficult to generalize the results. Member checking was only completed with three of the parents who were most likely to respond. The parents were interviewed during different days during the movement program. Their reports of their experiences may have changed throughout their children's experiences in the movement program. Further study of the movement group and the intervention used may be needed to establish the best treatment options for children with sensorimotor impairments.

Conclusion

Parenting concerns included leisure participation, unexpected parenting experiences, positive and negative school support, social participation, and life challenges, which provide insight into the occupation of parenting a child with sensorimotor impairments. Occupational therapists can provide holistic care to children with sensorimotor impairments by taking into consideration parenting concerns and parents' expectations for leisure pursuits for their children. Using family-centered care can enhance the effectiveness of therapy services, since families work as a dynamic unit, and a child's success is dependent on the family unit.

References

- Ayres, A. J. (1974). *The development of sensory integrative theory and practice*. Dubuque, IA: Kendall/Hunt.
- Bazyk, S., & Downing, D. (2017). FAQ on school mental health for school-based occupational therapy practitioners. Retrieved from <http://www.aota.org/~media/Corporate/Files/Se-cure/Practice/Children/School%20Mental%20Health%20FAQ%20Webfin.pdf>
- Bleser, W. K., Young, S. I., & Miranda, P. Y. (2017). Disparities in patient- and family-centered care during US children's health care encounters: A closer examination. *Academic Pediatrics, 17*(1), 17-26. <https://doi.org/10.1016/j.acap.2016.06.008>
- Cohn, E. S., Kramer, J., Schub, J. A., & May-Benson, T. (2014). Parents' explanatory models and hopes for outcomes of occupational therapy using a sensory integration approach. *American Journal of Occupational Therapy, 68*(4), 454-462. <https://doi.org/10.5014/ajot.2014.010843>
- Cohn, E., Miller, L. J., & Tickle-Degnen, L. (2000). Parental hopes for therapy outcomes: Children with sensory modulation disorders. *American Journal of Occupational Therapy, 54*(1), 36-43. <https://doi.org/10.5014/ajot.54.1.36>
- Dunbar, S. B., & Roberts, E. (2006). An exploration of mothers' perceptions regarding mothering occupations and experiences. *Occupational Therapy in Health Care, 20*(2), 51-73. https://doi.org/10.1080/J003v20n02_04
- Dunn, W. (1997). The impact of sensory processing abilities on the daily lives of young children and their families: A conceptual model. *Infants & Young Children, 9*(4), 23-35.

- <https://doi.org/10.1097/00001163-199704000-00005>
- Fingerhut, P. E., Piro, J., Sutton, A., Campbell, R., Lewis, C., Lawji, D., & Martinez, N. (2013). Family-centered principles implemented in home-based, clinic-based, and school-based pediatric settings. *American Journal of Occupational Therapy*, 67(2), 228-235. <http://dx.doi.org/10.5014/ajot.2013.006957>
- Kirkpatrick, J. (2012, June 4). Sports for children with sensory processing disorders: A guide for occupational therapy practitioners. *OT Practice*, 17(10), 8-13.
- Koenig, K. P., & Rudney, S. G. (2010). Performance challenges for children and adolescents with difficulty processing and integrating sensory information: A systematic review. *American Journal of Occupational Therapy*, 64(3), 430-442. <https://doi.org/10.5014/ajot.2010.09073>
- Mailloux, Z., Mulligan, S., Roley, S. S., Blanche, E., Cermak, S., Coleman, G. G., . . . Lane, C. J. (2011). Verification and clarification of patterns of sensory integrative dysfunction. *American Journal of Occupational Therapy*, 65(2), 143-151. <https://doi.org/10.5014/ajot.2011.000752>
- May-Benson, T. A., & Koomar, J. A. (2010). Systematic review of the research evidence examining the effectiveness of interventions using a sensory integrative approach for children. *American Journal of Occupational Therapy*, 64(3), 403-414 <https://doi.org/10.5014/ajot.2010.09071>
- Missiuna, C., Moll, S., Law, M., King, S., & King, G. (2006). Mysteries and mazes: Parents' experiences of children with developmental coordination disorder. *Canadian Journal of Occupational Therapy*, 73(1), 7-17. <https://doi.org/10.2182/cjot.05.0010>
- Powrie, B., Kolehmainen, N., Turpin, M., Ziviani, J., & Copley, J. (2015). The meaning of leisure for children and young people with physical disabilities: A systematic evidence synthesis. *Developmental Medicine & Child Neurology*, 57(11), 993-1010. <https://doi.org/10.1111/dmcn.12788>
- Resch, J. A., Mireles, G., Benz, M. R., Grenwelge, C., Peterson, R., & Zhang, D. (2010). Giving parents a voice: A qualitative study of the challenges experienced by parents of children with disabilities. *Rehabilitation Psychology*, 55(2), 139-150. <http://dx.doi.org/10.1037/a0019473>
- Reynolds, S., & Lane, S. J. (2008). Diagnostic validity of sensory over-responsivity: A review of the literature and case reports. *Journal of Autism and Developmental Disorders*, 38(3), 516-529. <https://doi.org/10.1007/s10803-007-0418-9>
- Schaaf, R. C., & Miller, L. J. (2005). Occupational therapy using a sensory integrative approach for children with developmental disabilities. *Developmental Disabilities Research Reviews*, 11(2), 143-148. <https://doi.org/10.1002/mrdd.20067>
- Stanley, M. (2015). Qualitative descriptive: A very good place to start. In S. Nayar & M. Stanley (Eds.), *Qualitative research methodologies for occupational science and therapy* (pp. 21-36). New York, NY: Routledge.