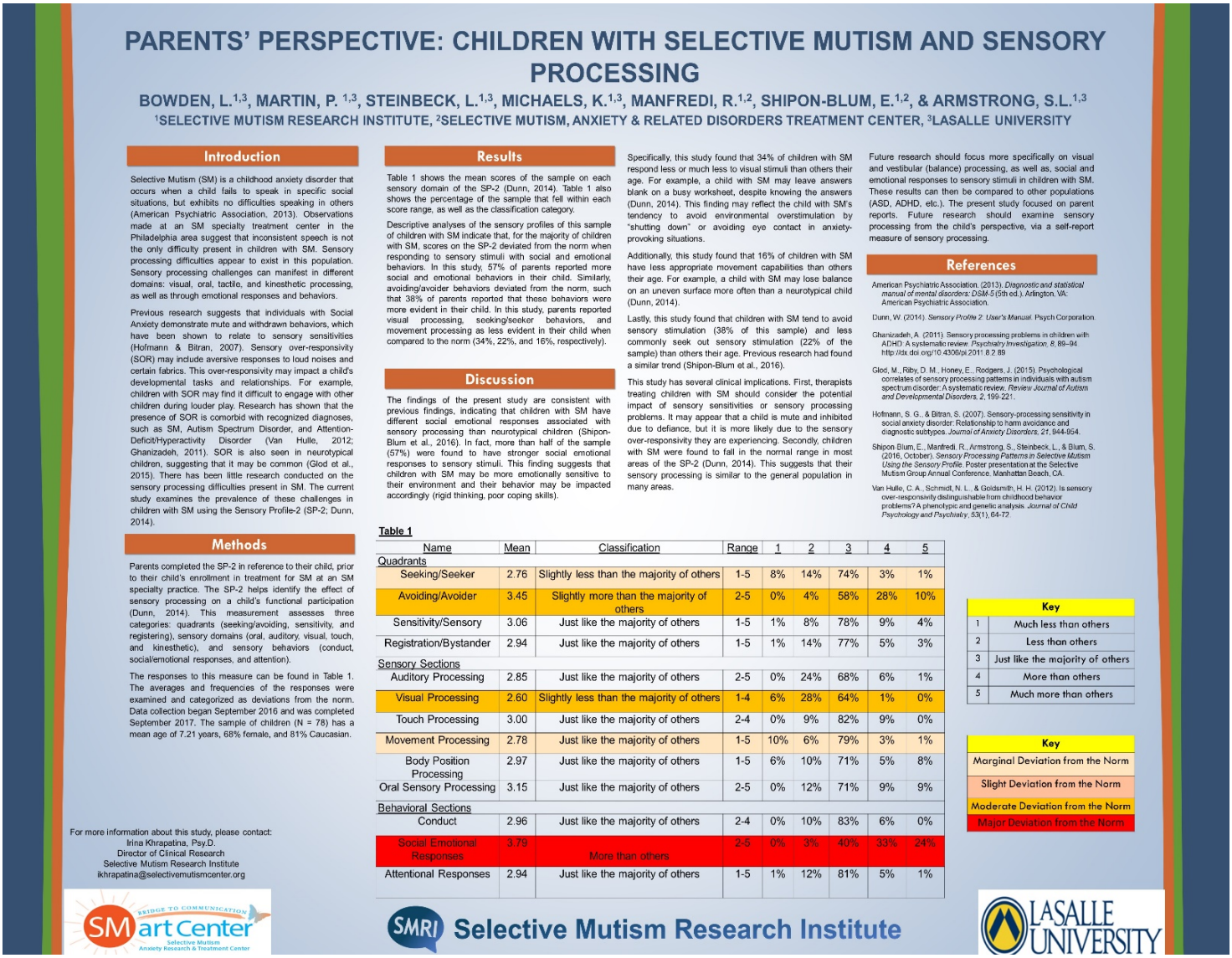
Selective Mutism Research Institute

Parents' Perspective: Children with Selective Mutism and Sensory Processing

This study examines the descriptive characteristics of 78 children with SM and their sensory profiles, assessed via the Sensory Profile-2 (SP-2). The SP-2 is a set of norm-referenced, standardized items designed to assess children's sensory processing (Dunn, 2014). Data collection is ongoing, and has thus far found that children with SM exhibit higher social emotional responses (57% of sample) and social avoiding behaviors (38%), as well as lower visual processing skills (34%), social seeking behaviors (22%), and movement processing skills (16%) associated with sensory processing than the general population. This study implies that therapists treating children with SM should consider the potential impact of sensory sensitivities or sensory processing problems.



PARENTS' PERSPECTIVE: CHILDREN WITH SELECTIVE MUTISM AND SENSORY PROCESSING

BOWDEN, L.[1,3], MARTIN, P. [1,3], STEINBECK, L.[1,3], MICHAELS, K.[1,3], MANFREDI, R.[1,2], SHIPON-BLUM, E.[1,2], & ARMSTRONG, S.L.[1,3]
[1]SELECTIVE MUTISM RESEARCH INSTITUTE, [2]SELECTIVE MUTISM, ANXIETY & RELATED DISORDERS TREATMENT CENTER, [3]LASALLE UNIVERSITY

Introduction

Selective Mutism (SM) is a childhood anxiety disorder that occurs when a child fails to speak in specific social situations, but exhibits no difficulties speaking in others (American Psychiatric Association, 2013). Observations made at an SM specialty treatment center in the Philadelphia area suggest that inconsistent speech is not the only difficulty present in children with SM. Sensory processing difficulties appear to exist in this population. Sensory processing challenges can manifest in different domains: visual, oral, tactile, and kinesthetic processing, as well as through emotional responses and behaviors.

Previous research suggests that individuals with Social Anxiety demonstrate mute and withdrawn behaviors, which have been shown to relate to sensory sensitivities (Hofmann & Bitran, 2007). Sensory over-responsivity (SOR) may include aversive responses to loud noises and certain fabrics. This over-responsivity may impact a child's developmental tasks and relationships. For example, children with SOR may find it difficult to engage with other children during louder play. Research has shown that the presence of SOR is comorbid with recognized diagnoses, such as SM, Autism Spectrum Disorder, and Attention-Deficit/Hyperactivity Disorder (Van Hulle, 2012; Ghanizadeh, 2011). SOR is also seen in neurotypical children, suggesting that it may be common (Glod et al., 2015). There has been little research conducted on the sensory processing difficulties present in SM. The current study examines the prevalence of these challenges in children with SM using the Sensory Profile-2 (SP-2; Dunn, 2014).

Methods

Parents completed the SP-2 in reference to their child, prior to their child's enrollment in treatment for SM at an SM specialty practice. The SP-2 helps identify the effect of sensory processing on a child's functional participation (Dunn, 2014). This measurement assesses three categories: quadrants (seeking/avoiding, sensitivity, and registering), sensory domains (oral, auditory, visual, touch, and kinesthetic), and sensory behaviors (conduct, social/emotional responses, and attention).

The responses to this measure can be found in Table 1. The averages and frequencies of the responses were examined and categorized as deviations from the norm. Data collection began September 2016 and was completed September 2017. The sample of children (N = 78) has a mean age of 7.21 years, 68% female, and 81% Caucasian.

For more information about this study, please contact:
Irina Khrapatina, Psy.D.
Director of Clinical Research
Selective Mutism Research Institute
ikhrapatina@selectivemutismcenter.org

Results

Table 1 shows the mean scores of the sample on each sensory domain of the SP-2 (Dunn, 2014). Table 1 also shows the percentage of the sample that fell within each score range, as well as the classification category.

Descriptive analyses of the sensory profiles of this sample of children with SM indicate that, for the majority of children with SM, scores on the SP-2 deviated from the norm when responding to sensory stimuli with social and emotional behaviors. In this study, 57% of parents reported more social and emotional behaviors in their child. Similarly, avoiding/avoider behaviors deviated from the norm, such that 38% of parents reported that these behaviors were more evident in their child. In this study, parents reported visual processing, seeking/seeker behaviors, and movement processing as less evident in their child when compared to the norm (34%, 22%, and 16%, respectively).

Discussion

The findings of the present study are consistent with previous findings, indicating that children with SM have different social emotional responses associated with sensory processing than neurotypical children (Shipon-Blum et al., 2016). In fact, more than half of the sample (57%) were found to have stronger social emotional responses to sensory stimuli. This finding suggests that children with SM may be more emotionally sensitive to their environment and their behavior may be impacted accordingly (rigid thinking, poor coping skills).

Specifically, this study found that 34% of children with SM respond less or much less to visual stimuli than others their age. For example, a child with SM may leave answers blank on a busy worksheet, despite knowing the answers (Dunn, 2014). This finding may reflect the child with SM's tendency to avoid environmental overstimulation by "shutting down" or avoiding eye contact in anxiety-provoking situations.

Additionally, this study found that 16% of children with SM have less appropriate movement capabilities than others their age. For example, a child with SM may lose balance on an uneven surface more often than a neurotypical child (Dunn, 2014).

Lastly, this study found that children with SM tend to avoid sensory stimulation (38% of this sample) and less commonly seek out sensory stimulation (22% of the sample) than others their age. Previous research had found a similar trend (Shipon-Blum et al., 2016).

This study has several clinical implications. First, therapists treating children with SM should consider the potential impact of sensory sensitivities or sensory processing problems. It may appear that a child is mute and inhibited due to defiance, but it is more likely due to the sensory over-responsivity they are experiencing. Secondly, children with SM were found to fall in the normal range in most areas of the SP-2 (Dunn, 2014). This suggests that their sensory processing is similar to the general population in many areas.

Future research should focus more specifically on visual and vestibular (balance) processing, as well as, social and emotional responses to sensory stimuli in children with SM. These results can then be compared to other populations (ASD, ADHD, etc.). The present study focused on parent reports. Future research should examine sensory processing from the child's perspective, via a self-report measure of sensory processing.

References

American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders: DSM-5* (5th ed.). Arlington, VA: American Psychiatric Association.

Dunn, W. (2014). *Sensory Profile 2: User's Manual*. Psych Corporation.

Ghanizadeh, A. (2011). Sensory processing problems in children with ADHD: A systematic review. *Psychiatry Investigation, 8*, 89–94. http://dx.doi.org/10.4306/pi.2011.8.2.89

Glod, M., Riby, D. M., Honey, E., Rodgers, J. (2015). Psychological correlates of sensory processing patterns in individuals with autism spectrum disorder: A systematic review. *Review Journal of Autism and Developmental Disorders, 2*, 199-221.

Hofmann, S. G., & Bitran, S. (2007). Sensory-processing sensitivity in social anxiety disorder: Relationship to harm avoidance and diagnostic subtypes. *Journal of Anxiety Disorders, 21*, 944-954.

Shipon-Blum, E., Manfredi, R., Armstrong, S., Steinbeck, L., & Blum, S. (2016, October). *Sensory Processing Patterns in Selective Mutism Using the Sensory Profile*. Poster presentation at the Selective Mutism Group Annual Conference. Manhattan Beach, CA.

Van Hulle, C. A., Schmidt, N. L., & Goldsmith, H. H. (2012). Is sensory over-responsivity distinguishable from childhood behavior problems? A phenotypic and genetic analysis. *Journal of Child Psychology and Psychiatry, 53*(1), 64-72.

Table 1

Name	Mean	Classification	Range	1	2	3	4	5
Quadrants								
Seeking/Seeker	2.76	Slightly less than the majority of others	1-5	8%	14%	74%	3%	1%
Avoiding/Avoider	3.45	Slightly more than the majority of others	2-5	0%	4%	58%	28%	10%
Sensitivity/Sensory	3.06	Just like the majority of others	1-5	1%	8%	78%	9%	4%
Registration/Bystander	2.94	Just like the majority of others	1-5	1%	14%	77%	5%	3%
Sensory Sections								
Auditory Processing	2.85	Just like the majority of others	2-5	0%	24%	68%	6%	1%
Visual Processing	2.60	Slightly less than the majority of others	1-4	6%	28%	64%	1%	0%
Touch Processing	3.00	Just like the majority of others	2-4	0%	9%	82%	9%	0%
Movement Processing	2.78	Just like the majority of others	1-5	10%	6%	79%	3%	1%
Body Position Processing	2.97	Just like the majority of others	1-5	6%	10%	71%	5%	8%
Oral Sensory Processing	3.15	Just like the majority of others	2-5	0%	12%	71%	9%	9%
Behavioral Sections								
Conduct	2.96	Just like the majority of others	2-4	0%	10%	83%	6%	0%
Social Emotional Responses	3.79	More than others	2-5	0%	3%	40%	33%	24%
Attentional Responses	2.94	Just like the majority of others	1-5	1%	12%	81%	5%	1%

Key	
1	Much less than others
2	Less than others
3	Just like the majority of others
4	More than others
5	Much more than others

Key
Marginal Deviation from the Norm
Slight Deviation from the Norm
Moderate Deviation from the Norm
Major Deviation from the Norm

SMart Center — Bridge to Communication — Selective Mutism Anxiety Research & Treatment Center

Selective Mutism Research Institute

LASALLE UNIVERSITY

To learn more, visit www.SelectiveMutismCenter.org or www.SelectiveMutismResearchInstitute.org.

For questions, call (215) 877-5748 or email SMartCenter@SelectiveMutismCenter.org