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ntroduction

- Individuals with SOR, the most common sensory modulation disorder, describe daily life experiences as irritating, overwhelming, disorganizing and distracting (Kinnealey, Koenig & Smith, 2011)
- Stimulation from the environment is interpreted through our body's senses and causes automatic, unconscious changes in our physiological responses

Purpose

- To compare typically functioning adults who self-report as low or high in sensory over responsivity (SOR)
- To validate the sensory experiences of these adults and assist practitioners in properly addressing them

Research Design

- $n=17^* \rightarrow Experimental Group (high SOR) = 8, Control Group (low SOR) = 9$
- Inclusion: Typical, English speaking adults 18-64 years old and AASP scores
- Exclusion: Cognitive or mental diagnoses and medications that influence the autonomic nervous system

Recruitment & Phone screening

AASP & SRQ completed to determine group

Sensory Challenge Protocol

* Researchers originally recruited n= 22, however, five participants were removed due to not meeting re-qualification criteria

Measures and Methods

- Group Determination: Adolescent/Adult Sensory Processing (AASP) and Sensory Response Questionnaire (SRQ) scores
- **Outcome:** Electrical Dermal Response (EDR) to 12 different sensory stimuli across three different modalities



References: Abernethy H. (2010). The assessment and treatment of sensory defensiveness in adult mental health: a literature review. British Journal of Occupational Therapy, 73(5), 210-218., Ayres, A. J. (1972) Sensory integration and learning disorders. United States of America: Western Psychological Services., Kinnealey, M., Koenig, K. P., & Smith, S. (2011). Relationships between sensory modulation and social supports and health related quality of life. American Journal of Occupational Therapy, 65, 320–327. doi: 10.5014/ajot.2011.001370

Physiological Responses of Adults with Sensory Over-Responsiveness Catherine Datu, OTS, Nicholas Or, OTS, Megan Valentine, OTS and Megan Velcich, OTS Capstone Advisor: Julia Wilbarger, PhD OTR/L Occupational Therapy Department, Dominican University of California

SPSS; Data Reduction & Analysis



- at P < 0.001
- High SOR group had a larger EDR; however, this difference was not significant • EDR to the lawn mower trended towards significant group differences, EDR to 3000 Hz and Nuk Brush had moderate effect sizes • There are strong correlations for inter-stimuli EDR, the way an individual responds to one or a
- few stimuli is predictive of how that individual will respond to other stimuli

Limitations

Results

Conclusion

• Groups differed significantly on the AASP and SRQ

• Small sample size, limited geographic sampling • Inadequate inclusions/exclusion sampling • The use of EDR as an objective measure for SOR is neither strongly supported or denied

Implications for Practice

- studies
- stimuli

Acknowledgements

this project possible

• The AASP & SRQ can be used in conjunction to determine a client's SOR status • EDR can be a useful tool to justify the experiences of these adults for other practitioners in future

• The way an individual responds to one stimuli can be generalized to how they will respond to all

• Occupational therapists are best suited to work with individuals with high SOR through task analysis and education of coping strategies

• We would like to thank the participants, Barbara McCamish at Dominican University, and our capstone advisor, Dr. Julia Wilbarger who made