

## Introduction

- 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 responsiveness (SOR)
- To validate the sensory experiences of these adults and assist practitioners in properly addressing them

## Research Design

- **n=17\*** → 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



\* 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

### Sensory Challenge Protocol

#### Auditory

Crickets  
Lawnmower  
Baby crying  
Pure Tones

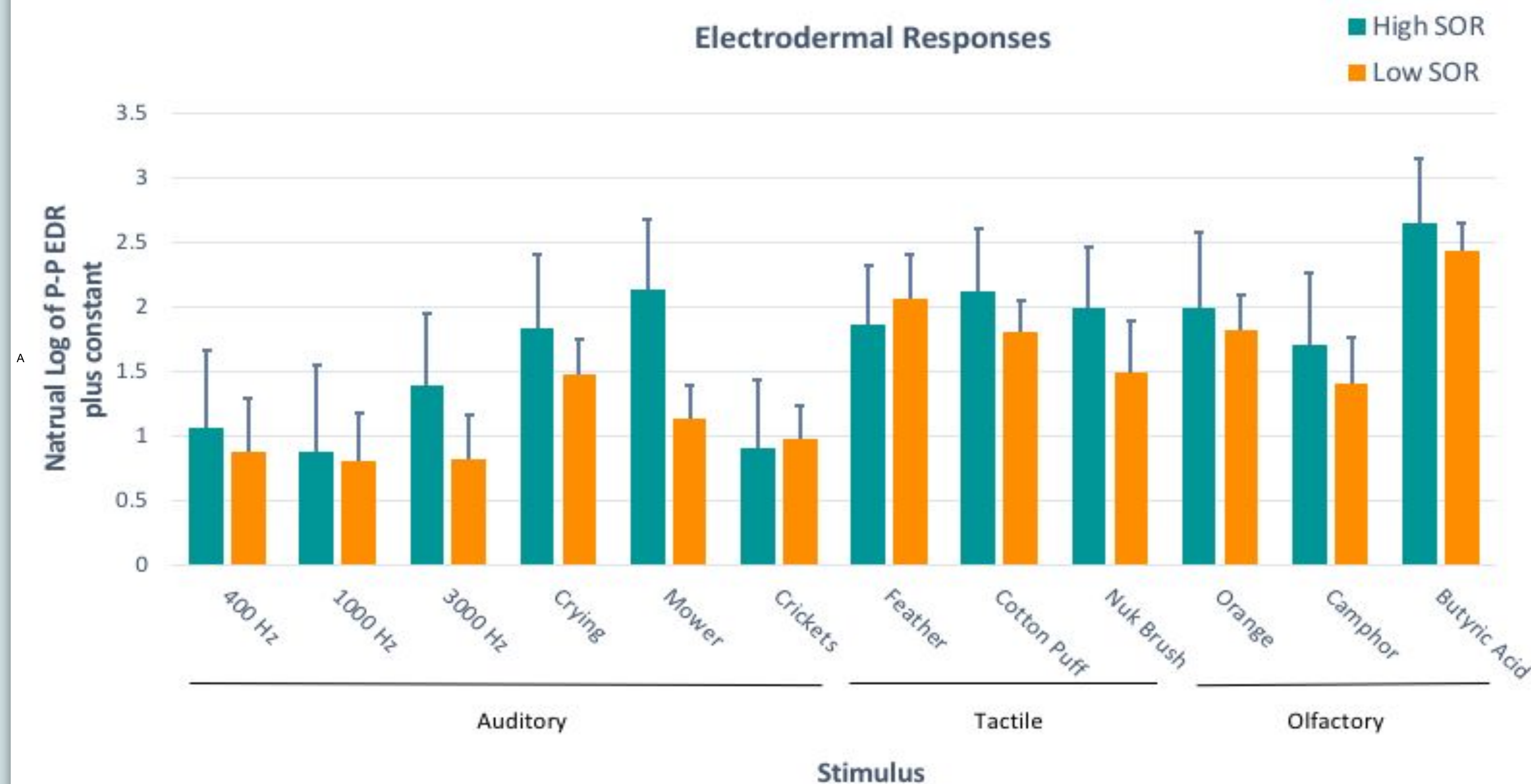
#### Tactile

Cotton Puff  
Nuk Brush  
Feather

#### Olfactory

Camphor  
Orange  
Butyric Acid

## Results



## Conclusion

- Groups differed significantly on the AASP and SRQ 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

- 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

- 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 studies
- The way an individual responds to one stimuli can be generalized to how they will respond to all stimuli
- Occupational therapists are best suited to work with individuals with high SOR through task analysis and education of coping strategies

### Acknowledgements

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