Effectiveness of Sensory-Based Strategies in Reducing Interfering Behaviors in a Non-Public School

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SITE DESCRIPTION

JABBERGYM:
- Founded in 2005
- **Services**: early intervention, clinic-based, and school-based
- **Mission**: "to successfully promote growth and development by addressing the needs of the whole-child" (Jabbergym, 2021)

POINT QUEST EDUCATION (PQE):
- Founded in 2008
- California Department of Education certified **non-public school**
- **Grades**: Kindergarten – 12+ grade
- **Philosophy**: is to "provide each student with the tools, strategies, and resources needed to be successful in a less restrictive environment" (PQE, 2014)
- **Diagnoses**: Autism spectrum disorder (ASD), emotional disturbance, intellectual disabilities, specific learning disabilities, and other health impairments (PQE, 2021)
- **Services**: occupational therapy, mental health, speech and language, and behavior

PQE and JABBERGYM merged in 2022
- Jabbergym is now a member of the Point Quest Group

Independent Living Skills Lab (images 1 & 2) and OT Room (image 3)

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SUMMARY OF NEEDS ASSESSMENT

- Semi-structured interview with community site mentor via Zoom
- Online Survey (via google forms) sent to Jabbergym and PQE staff

- **Identified needs:**
  - Program evaluation of effective **sensory-based interventions (SBIs)** and strategies to decrease/prevent interfering behaviors
  - **Sensory-based in-service training** to school staff (related services, teachers, and paraeducators)
  - Resources and handouts on **sensory-regulation strategies**

KEY POINTS OF LITERATURE REVIEW

- **Prevalence of children with Sensory Processing Disorder (SPD):**
  - 5% to 55% of children (Critz et al., 2015; Owen et al., 2013)
  - 40% to 88% of children with disabilities (Watling et al., 2018)
  - 69% to 95% of children with **ASD** (Galiana-Simal et al., 2020; Hazen et al., 2014)
  - **Emotional Disturbance** often co-occurs (Barnes et al., 2008)

- Addressing sensory needs using a sensory-based approach allows children to access their curriculum successfully (AOTA, 2015)

- Approaches that **utilize sensory-rich experiences** help to create change and build connections in the brain, which has been shown to have behavioral **enhancements in learning** (Watling et al., 2018)

LEARNING OBJECTIVES

Primary Focus Area: Clinical Practice Skills

- Developed **clinical practice skills** in a special education school setting by treating a portion of site mentor's caseload and provide sensory-based interventions and recommendations
- Provided **in-service training** to educate school staff on sensory processing
- Developed program **evaluation skills** by conducting a survey of in-service training program to determine its effectiveness

PROJECT DESCRIPTION & IMPLEMENTATION

Student Caseload:
- 20 direct & 5 consult
- 22 males & 3 females
- Ages: 5 – 20 years old
- Population: ASD, SPD, dyspraxia, non-verbal
- Sessions: duration 30-minutes, frequency 1 to 2 times per week
- Skill areas addressed: sensory & self-regulation strategies, handwriting, scissor skills, body awareness, bilateral coordination, motor planning

Additional training:
- Online sensory processing course (3 certifications)
- Crisis Prevention Institute training

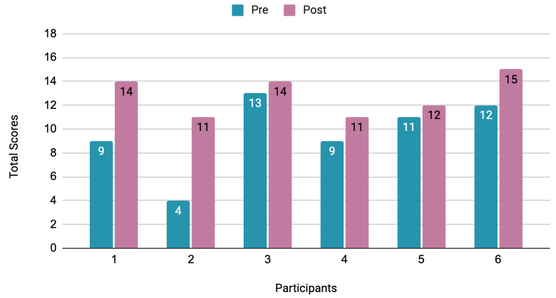
In-Service Training:
- Created and implemented 48-minute training on sensory processing and sensory-regulation strategies

EVALUATION & PROJECT OUTCOMES

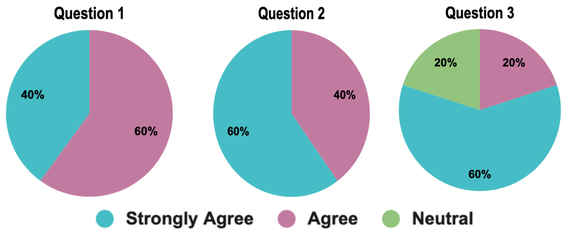
OT School-Based Clinical Skills
- OT school-based competency checklist (AOTA, 2013) - performance evaluation by site mentor
- Ratings on standards (*developing, proficient, accomplished, distinguished, not demonstrated*)
  - **Results:** *Distinguished* for all five standards

Sensory Training
- Pre-knowledge and post-knowledge check scores of changes in knowledge before and after training
- Training feedback

Pre-/Post- Knowledge Check



Training Feedback



- Q1: Training improved my knowledge on sensory processing & strategies
- Q2: The sensory training provided useful information
- Q3: I will utilize the sensory strategies I learned from the training

SCHOLARLY DELIVERABLES

- Online folder:
  - Movement breaks, adapted PE, and transition ideas
    - Images 1 & 2
  - Sensory training presentation
    - Images 3, 4, & 5
  - Pre-Training and Post-Training survey
  - Sensory handouts and resources
- OT class folders for students on caseload

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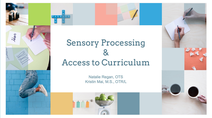

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DISCUSSION & IMPLICATIONS

- The high number of students with SPD and ASD creates a significant impact on the rate of students unsuccessfully accessing their curriculum due to sensory needs not being met, which is why there was a considerable need for staff to complete training on sensory processing, SPD, and sensory-regulation strategies
- Advocates for the shift from caseload to workload model for school-based OT practitioners

FUTURE DIRECTIONS

- Follow-up to measure long-term improvements from sensory training
- Attain data on the effectiveness of sensory strategies and utilization
- Expand sensory strategies to outside the school environment: staff (transportation drivers) and offer training for parents/caregivers

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REFERENCES (Available Upon Request)