The Relationship Between Children’s Sensory Processing Patterns and Their Participation in Leisure Activities

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Noor Ismael, MSOT
Lisa Mishe Lawson, PhD, CTRS
Jane Cox, MS, OTR/L

Rationale for Study
• Importance of participation in leisure activities
• Factors that affect children’s participation in leisure activities
• Sensory processing and activity participation
• Significance of the study to occupational therapy

Research Questions
• In what leisure activities did children with sensation seeking, low registration, sensation avoiding, and sensitivity patterns of sensory processing participate?
• Are there relationships between children’s sensory processing patterns and leisure participation patterns?

Design and Measures
Correlational design

Self or caregiver administered questionnaires:
• The Adolescent/Adult Sensory Profile (Brown & Dunn, 2002)
• The Sensory Profile Caregiver Questionnaire (Dunn, 1999)
• The Children's Assessment for Participation and Enjoyment (CAPE) and The Preferences for Activities of Children (PAC)

Convenience Sample
• 91 children (45 boys, 46 girls).
• Aged 6-14 years
• 81.3% of children were white, and 18.7% represent diverse other ethnicities
• 76.9% lived in suburban communities, and 23.1% lived in urban and rural communities
• 22% had current Individualized Education Plan (IEP)
• 8.8% were currently receiving occupational therapy services

Procedures
• The study was approved by the institution’s Internal Review Board
Informed consent was obtained from all parents of children participating in the study and assent from children capable from providing it.

Sensory Profile and CAPE/PAC were administered.

**Data Analysis**

**Question 1**
In what leisure activities did children with sensation seeking, low registration, sensation avoiding, and sensitivity patterns of sensory processing participate?

Analysis of frequencies for CAPE diversity scores in each sensory quadrant

**Results**
- All children regardless of their sensory processing patterns preferred watching TV.
- Only children who have more or much more traits toward sensation avoiding demonstrated noteworthy distinct preferences in relation to the other sensory patterns. They preferred activities like reading, doing a chore, doing puzzles, and going to the public library.

**Data Analysis**

**Question 2**
Are there relationships between children's sensory processing patterns and their leisure participation patterns?

Correlational analysis using Sensory Profile quadrant summary scores, and CAPE/PAC summary scores

**Results**

CAPE Correlations
Low registration quadrant summary z scores negatively correlated with CAPE overall diversity scores ($r = -0.23, p = .03$).

PAC Correlations
Sensitivity quadrant summary z scores negatively correlated with preferences for social activities ($r = -0.23, p = .03$) and preferences for skill-based activities ($r = -0.22, p = .04$), and Avoiding quadrant summary z scores negatively correlated with preferences for social activities ($r = -0.26, p = .01$).

**Discussion**
- Results suggested that children with different sensory processing patterns preferred both the same and different activities.
- All children preferred watching TV. Parents consider watching TV a safe activity compared to playing outside.
- Children with sensory avoiding preferences preferred activities that occur in quiet environments, and have low demands for social interaction.
Children with low registration profiles preferred to participate in a smaller number of activities. They are passive and may not seek out different opportunities.

Children who are less sensitive and children who are less avoiding prefer to participate in social activities might be because they have greater tolerance for the sensory demands of socialization.

Children who are less sensitive prefer to participate in skill-based activities might be because they do not care about having previous experience participating in these activities.

**Strengths**
- Large sample
- Includes children with IEPs
- CAPE/PAC includes a wide range of activities

**Limitations**
- Sample primarily suburban, Caucasian
- Participant Fatigue
- Multiple measures took a long time to complete

**Implication for Occupational Therapy**
- Understanding children’s sensory experiences help occupational therapists when offering play and leisure activities.
- Collaboration between occupational therapists and schools’ teachers help in facilitating structured and unstructured recess activities to meet students’ sensory needs.
- When working with families of adults and children with different sensory preferences, OTs might consider activities preferred by people with all sensory patterns.

**References**


