

Clinical Utility of Three Sensory Modulation instruments for children with Autism Spectrum Disorders in South Africa

A Practitioners' Perspective

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Background

- SA children with ASD have a right to **fair and accessible** assessment (*HPCSA, 2016*)
- Assessment tools used by OT's in SA are **developed and normed** in first world countries → results not always representative of the children in SA (*Smith et al, 2016; Radameyer & Jacklin, 2013; van Jaarsveld, Mailloux & Herzberg, 2012*)
- OT's assessing sensory modulation of children with ASD cannot be certain that assessments are valid for SA and need to **establish validity** for their use



Main Points

- Aim of the Study
- Definitions of Clinical Utility
- Brief overview of three sensory modulation measures
- Methodology
- Results
- Recommendations

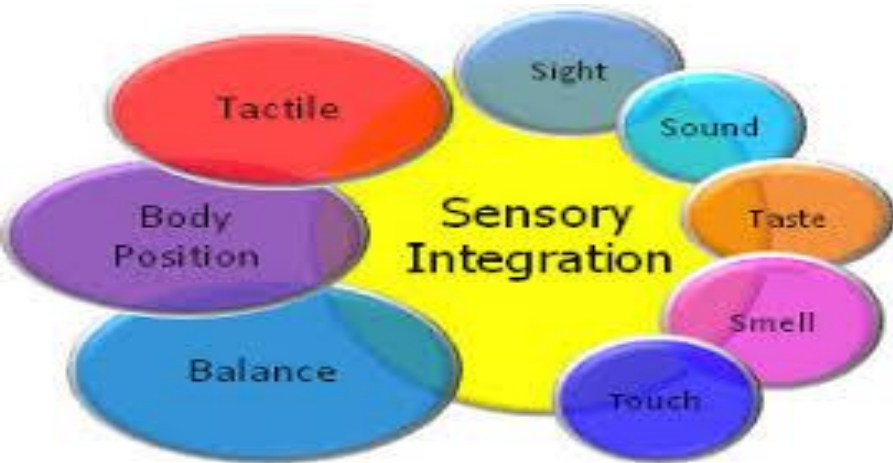


Aim

To establish the practitioner's perspective on the **clinical utility** of three sensory modulation measures to ascertain the **acceptability, accessibility, practicability** and **appropriateness** for use with SA children with ASD



Sensory Modulation Measures



www.thesensoryclinic.com.au

**Sensory Experiences
Questionnaire version 2.1** (Baranek
et al., 1999)

**Sensory Processing Measure
Home Form**
(Parham & Ecker, 2007)

Sensory Profile
(Dunn, 1999)

Sensory Experiences Questionnaire ver 2.1

(Baranek et al., 1999)

Caregiver, self report questionnaire

30 questions

5 point likert scale

Almost Never → Once in a while → Sometimes → Frequently → Almost Always

“Does your child notice sounds in the environment (e.g. planes, trains, faucets dripping, lights buzzing)”

Sensory Processing Measure

Home Form *(Parham & Ecker, 2007)*

Self report caregiver questionnaire
75 questions

4 point rating scale
Never → Occasionally → Frequently → Always

“Seems bothered by ordinary household sounds like vacuum cleaner, hair dryer or toilet flushing?”

Sensory Profile (*Dunn, 1999*)

Caregiver, self report questionnaire

125 questions

5 point likert scale

Never → Seldom → Occasionally → Frequently → Always

“Responds negatively to unexpected or loud noises (e.g. cries or hides at noise from vacuum cleaner, dog barking, hair dryer)

Methodology

Cross sectional, descriptive survey design

Postal/email survey of OT's who met inclusion criteria:

- Members of The South African Institute of Sensory Integration (SAISI)
- Completed SASIC level 3
- ASD experience

Final Sample n=31



Appropriateness

KEY

4 = Strongly Agree

3 = Agree

2 = Disagree

1 = Strongly Disagree

Once you have reviewed each instrument please CIRCLE THE RATING on the following questions

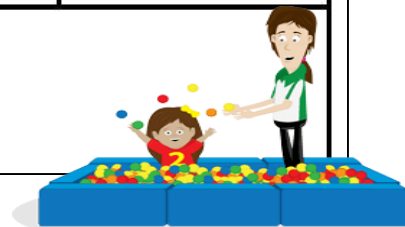
APPROPRIATENESS OF THE INSTRUMENT <i>To be appropriate an instrument should yield results that can be used in clinical decision making and impact on the child's treatment plan.</i>	SENSORY PROFILE <i>(Dunn, 1999)</i>	SENSORY PROCESSING MEASURE <i>(Parham & Ecker, 2007)</i>	SENSORY EXPERIENCES QUESTIONNAIRE <i>(Baranek, 2009)</i>
1. The instrument assesses sensory responses of the child related to typical scenarios they may face in their everyday life.	1 2 3 4	1 2 3 4	1 2 3 4
2. The questions are relevant to the child with ASD functional performance level?	1 2 3 4	1 2 3 4	1 2 3 4
3. I can design an appropriate treatment plan for the sensory needs of a child with ASD from the results yielded from this instrument. (eg sensory diet)	1 2 3 4	1 2 3 4	1 2 3 4
Comments:			



Accessibility

ACCESSIBILITY OF THE INSTRUMENT <i>To be considered accessible, it must be readily available in your work place. The caregiver should be able to use it as a self-report measure.</i>	SENSORY PROFILE (Dunn, 1999)	SENSORY PROCESSING MEASURE (Parham & Ecker, 2007)	SENSORY EXPERIENCES QUESTIONNAIRE (Baranek, 2009)
4. I have this instrument available in my work place.	1 2 3 4	1 2 3 4	1 2 3 4
5. The language of the instrument (English) is likely to be understood by the caregivers I regularly see in my clinical setting.	1 2 3 4	1 2 3 4	1 2 3 4
6. The terminology used in the instrument is likely to be understood by the caregivers I regularly see in my clinical setting.	1 2 3 4	1 2 3 4	1 2 3 4
7. This instrument may be better understood if translated into the caregiver's home language.	1 2 3 4	1 2 3 4	1 2 3 4

Comments:



Practicability

PRACTICABILITY OF THE INSTRUMENT <i>For the instrument to be practicable it should be functional and suitable for its use in your setting.</i>	SENSORY PROFILE <i>(Dunn, 1999)</i>	SENSORY PROCESSING MEASURE <i>(Parham & Ecker, 2007)</i>	SENSORY EXPERIENCES QUESTIONNAIRE <i>(Baranek, 2009)</i>
8. The time it takes to complete the questionnaire is practical in my clinical setting.	1 2 3 4	1 2 3 4	1 2 3 4
9. The layout of the questionnaire is easy to follow.	1 2 3 4	1 2 3 4	1 2 3 4
10. The Rating Scale on the questionnaire is easy to understand.	1 2 3 4	1 2 3 4	1 2 3 4
11. The cost of the instrument is too high to be regularly used in my clinical setting.	1 2 3 4	1 2 3 4	1 2 3 4

Comments:



Acceptability

ACCEPTABILITY OF THE INSTRUMENT <i>For the instrument to be acceptable, it should be ethically sound, socially and culturally appropriate to the target population, and to the practitioner</i>	SENSORY PROFILE <i>(Dunn, 1999)</i>	SENSORY PROCESSING MEASURE <i>(Parham & Ecker, 2007)</i>	SENSORY EXPERIENCES QUESTIONNAIRE <i>(Baranek, 2009)</i>
12. The questions are culturally relevant.	1 2 3 4	1 2 3 4	1 2 3 4
13. The questions are relevant to the child's daily living skills.	1 2 3 4	1 2 3 4	1 2 3 4
14. The questions are sensitive to the child's environment.	1 2 3 4	1 2 3 4	1 2 3 4
15. This instrument is applicable to my setting and client group.	1 2 3 4	1 2 3 4	1 2 3 4
16. I am likely to use this instrument in my setting when assessing children with suspected or diagnosed ASD.	1 2 3 4	1 2 3 4	1 2 3 4

Comments:



Specific Items

SECTION B2: FURTHER DETAIL ON THE ITEMS OF THE THREE SENSORY MODULATION INSTRUMENTS

Please specify which item numbers you felt were problematic when reviewing the instruments for this survey. Please also specify what changes you recommend to make the item more relevant to South African ASD children.



SENSORY PROFILE (Dunn, 1999)	SENSORY PROCESSING MEASURE (Parham & Ecker, 2007)	SENSORY EXPERIENCES QUESTIONNAIRE (Baranek, 1999)

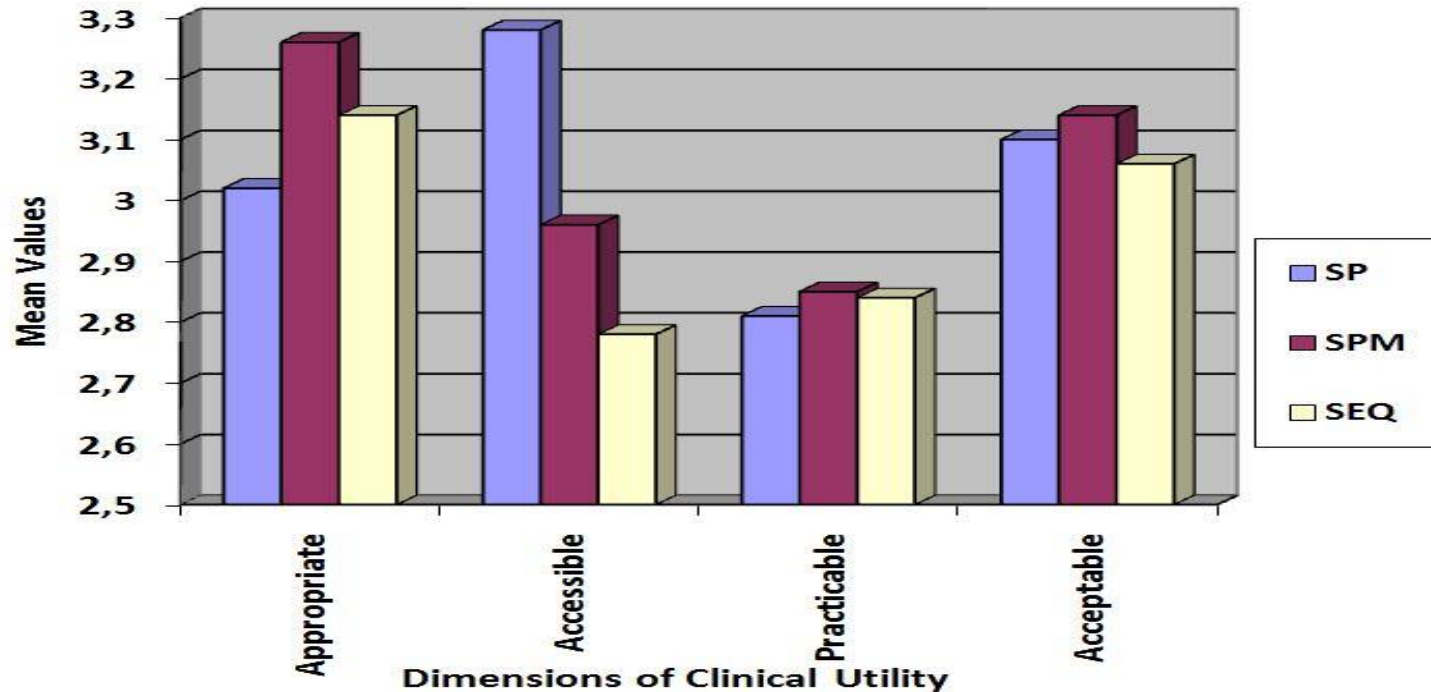


Results

Demographics

Number of Years as a Qualified OT		Clinical Settings of Participants			Challenges in using measures (n=28)	
<i>1-10 years</i>	<i>10 + years</i>	<i>Private Practice</i>	<i>Public</i>	<i>Academia</i>	<i>Yes</i>	
11 (35%)	20 (65%)	25 (80%)	5 (16%)	1	27 (97%)	
Language Spoken by Clients		Environmental Setting		Use of Sensory Modulation Measures in Practice		
<i>English</i>	<i>Other</i>	<i>Urban</i>	<i>Rural</i>	<i>Yes</i>	<i>No</i>	
21 (67%)	10 (32%)	26 (83%)	5 (16%)	28 (90%)	3 (10%)	

Comparisons of the measures



Comparisons of the three measures depicting the mean values in each of the four dimensions (n=31).

Conclusion & Recommendations

Utilising self report sensory modulation measures in children with ASD in SA

- *Translation into the caregivers home language*
- *Explanations/ culturally appropriate terminology used to enhance understanding*
- *Measure may be used to guide an interview but not as a valid assessment tool*

Development of a SA specific non-standardised sensory screening measure which can be readily reproducible in several local languages is recommended

SPM had the highest clinical utility and is recommended for use in the assessment of children with ASD in SA with recommended changes

