A MULTISENSORY ROOM FOR ADULTS WITH ASD AND SEVERE INTELLECTUAL DISABILITY: A PILOT-STUDY ON ITS USE FOR THERAPAEUTIC SESSIONS

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Multi-Sensory Environment (MSE)

- A physical space
- A process

An individualized behavioral scaffold, specifically designed to match the user’s current interests and therapeutic and/or educational needs.
Stineezelen, as a non-directive approach.

Other MSE based on already-selected stimuli, with a more structured approach.
Aim of the MSE intervention

Quality of Life:

- Relaxation and enjoyment
- Affect
- Engagement

Mixed results
Difficulty to rigorously study MSE

*Individual characteristics of the user*
- Dysfunctional and behavioral profile
- Sensory preferences’ profile

*Characteristics of the multi-sensory environment*
- Space organization, types of stimuli
- Type of personal scaffolding
- Type of relationship with the caregivers that stay with the patient in the room
Profound Intellectual Disability and ASD

? Being

? Belonging

? Becoming

? QoL
Profound/severe ID plus ASD

- Agitated behaviors
- Arousal problems
- Anxiety traits
- Self-stimulation
- Distractibility
- Difficult sensory-integration
- Discomfort for unstructured or unpredicted environments/activities/transitions
  (-Abdominal pain)
NEEDS

- Calibrated sensorial stimulation
S - Structure
P - Positive
E - Empathy
L – Low arousal

-Social interactions that play the role of functional substitute of inadequate self-stimulations
-Being, Belonging, Becoming
+ Massage & Choice

Some evidence about the effectiveness of massage in increasing relaxation and reducing challenging behavior. This is true for the ASD population, too.


Incorporating choice into these individuals’ lives has a positive impact by reducing problem behavior (e.g., Lohrmann-O’Rourke & Yurman, 2001) and enhancing task engagement (e.g., Cole & Levinson, 2002).

Objective

-To share a possible rationale of a MSE-treatment for adults with profound intellectual disability and autism
-To show a vivid experience and maintain a high interest for this type of disability and this type of intervention.
1. Reduced Agitation

2. Increased engagement

3. Increased trust

4. Increased active participation

Increased Quality of Life

Interaction, structure, choices, massage

Increased wellness

Active engagement
PAMAPI’S SME ROOM

- Air conditioning
- A cloth-ceiling with small lights (star effect)
- No corners
- Wood-pavement that vibrates with music
- Very big water-coloured-wall with bubbles
- Music and video projected on the wall
- Special armchair
- Aroma machine
SME PROTOCOL

Structure  Routine  Choices
1. Reduced Agitation

a. Air, music/vibrations, video, amchair, water wall
   Massage

b. Taking turns
   Object exchange with the operator

2. Increased engagement
Target behaviors

A. Increase of relaxation/appreciation signs in the SME room; agitation reduction
B. Attentional engagement in the SME room
C. Social engagement in the SME room
D. Increase of same behaviors out of the room
Observational method

A. Assessment and comparison of target behaviors through videos of the sessions

B. Pre- and post- differences in Cohen-Mansfield Agitation Inventory (CMAI)
Case 1 (F)

Behavioral profile
Procedure for Case 1

- We show him the picture of the MSE-room, as a request to go in that room
- We go with him near the room and help him take off his shoes
- We both get in the room with the water-wall lighted, so the caregiver helps him sit on the armchair
- We ask him to chose through PECS which video-plus-music he would like to watch/hear (5 minutes)
- We ask him to chose through PECS if he would like to go on the carpet or on another soft chair. At this point the subject may look at the water-wall or at the video
- Once the subject is sit, the caregiver behind him begins to softly cares him
- The touch becomes a massage
- The caregiver takes the subject’s hands and swings them
- **ACTIVE INTERCATION:** the caregiver gives the ball to the subject and asks him to give it back and looks for an eye contact
- The caregiver turns-off the video and the water-wall, brings the subject out of the room and helps him put his shoes on
Case 2 (G)
Behavioral profile
# First results

<table>
<thead>
<tr>
<th></th>
<th>DURING THE SESSIONS:</th>
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<th>Signs of well-being</th>
<th>Global CMAI Score: Pre-Post-Difference (most interesting items)</th>
<th>Qualitative observation (narrative description)</th>
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</thead>
<tbody>
<tr>
<td><strong>F</strong></td>
<td>Items CMAI “several times in an hour”</td>
<td>Items CMAI “several times during the day” (..and frequent during assigned activities)</td>
<td>Unusual relaxed face, increase in appropriate smile (but not very collaborative in the second part of the session, yet)</td>
<td>44</td>
<td>Mannerism out of the room is much less intense.</td>
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<td></td>
<td>Decrease in yelling</td>
<td>Decrease in mannerism and pinching</td>
<td></td>
<td>40</td>
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<td></td>
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<td>-4</td>
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<tr>
<td><strong>G</strong></td>
<td>Decrease in mannerism (but not in spitting)</td>
<td>Decrease in grabbing, restlessness and strange noises</td>
<td>Unusual relaxed face and more collaborative</td>
<td>55</td>
<td>Usually he hit himself frequently; after the sessions this behaviour has decreased both in frequency and in intensity</td>
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<td>51</td>
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Case 1 (F)
Levels of agitation (CMAI items) and collaboration/relaxation

STANZA MULTISENSOR.  FUORI STANZA MULTIS.
Caso 1 (F)
Levels of agitation (CMAI items) and collaboration/relaxation

STANZA MULTISENSOR.  GIARDINO MULTIS.
Case 1 (F)
Caso 2 (G)

Levels of agitation (CMAI items) and collaboration/relaxation

[Graph showing levels of agitation and collaboration/relaxation for different activities]

- STANZA MULTISENSOR.
- FUORI STANZA MULTIS.
Case 2 (G)

Levels of agitation (CMAI items) and collaboration/relaxation

STANZA MULTISENSOR.  GIARDINO MULTIS.
Case 2 (G)
OTHER CALMING EXPERIENCES
Case 3