Staff interactive style during multi-sensory storytelling with persons with profound intellectual and multiple disabilities

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Problem statement

Need for

more and more well-planned stimulating activities for people with PIMD

based on individual preferences, interests and capacities

with participation in daily and community activities

with opportunities for choice and control

(De Waele & Van Hove, 2005; Maes, Vos & Penne, 2010; Seifert, Fornefeld & Koenig, 2001; Wiersma et al., 2002; Zijlstra & Vlaskamp, 2005; Vlaskamp & Nakken, 1999)
Multi-sensory storytelling

Developed by PAMIS (Loretto Lambe, Scotland) and inspired by the Bag Books (Chris Fuller, UK)
Problem statement

But…also need for adequate staff support and qualitative interaction during activities

• e.g. Active Support: more support, more active engagement, more activities planned (Felce et al., 2000; Jones et al., 2001; Mansell et al., 2002; Parsons et al., 2004; Stancliffe et al., 2008)…

• e.g. sensory stimulation sessions with objects of preference and focus on interaction vs. specifically designed and expensive multi-sensory rooms (Fava & Strauss, 2010; Lancioni, Cuvo & O’Reilly, 2002; Vlaskamp et al., 2003)

• e.g. high-quality interactions contribute to alertness & engagement, happiness & well-being (Arthur, 2004; Clarke et al., 2002; Realon et al., 2002; Singh et al., 2004)…
Problem statement

Qualitative interaction:

• persons with PIMD are at risk for experiencing non-optimal interactions

• the **interactive style of the interaction partner** is considered one of the contributing factors in the quality of this process (Hostyn & Maes, 2009)
Research questions

What is the quality of the interactive style staff show during MSST?

Are client or staff characteristics associated with this interactive style?
METHODS

Participants
20 children/adults with PIMD and their professional caregiver

Measures

Coding of quality of staff interactive style: (part of the) Maternal Behavior Rating Scale (MBRS; Mahoney, 1992):

• instrument from parent-infant research: a global rating scale consisting of 12 items referring to maternal behaviour in parent-infant interaction

• applicable and useful to evaluate interactions between persons with PIMD and their direct support staff on the basis of sufficient training and knowledge of the interaction with persons with PIMD (Hostyn, Petry, Lambrechts & Maes, 2010)

• scoring videotaped interactions on a 5-point Likert-scale for the 12 maternal behavioural scale items > assessment of 4 interactive style factors
Methods

Selection of 7 items for the MSST-research, on a content basis:

RESPONSIVE/ CHILD ORIENTED
sensitivity to child's interest
responsivity
effectiveness (reciprocity)

AFFECT/ANIMATION
acceptance
enjoyment
expressiveness
warmth
Procedure

• training for staff: principles of MSST

• development of the stories

• implementation of the activity
  – 1 pilot session + 10 storytelling sessions
  – same storyteller
  – once a week, for a period of 10 weeks
  – fixed moment, fixed place
Procedure

• observational procedures
  1st, 5th and 10th session videotaped by researchers

• observer training and data coding procedures

  two raters
  training in using the MBRS
  rating independently, consensus procedure
Results

Quality of staff interactive style as assessed by 7 items of the MBRS

Descriptive statistics
Mean global MBRS-ratings ($N = 57$)

<table>
<thead>
<tr>
<th>Item</th>
<th>$M$</th>
<th>$SD$</th>
</tr>
</thead>
<tbody>
<tr>
<td>expressiveness</td>
<td>3.44</td>
<td>0.76</td>
</tr>
<tr>
<td>effectiveness</td>
<td>3.40</td>
<td>0.65</td>
</tr>
<tr>
<td>sensitivity</td>
<td>3.37</td>
<td>0.94</td>
</tr>
<tr>
<td>responsivity</td>
<td>3.23</td>
<td>0.95</td>
</tr>
<tr>
<td>pleasure</td>
<td>3.21</td>
<td>0.67</td>
</tr>
<tr>
<td>acceptance</td>
<td>2.89</td>
<td>0.56</td>
</tr>
<tr>
<td>warmth</td>
<td>2.53</td>
<td>0.83</td>
</tr>
</tbody>
</table>
Results

- Mean global MBRS-ratings all above the midpoint of the 5-point scale. On average: caregivers are at least moderately sensitive, consistently responsive, moderately effective, acceptant, pervasively enjoying, moderately overtly expressive and warm during the MSST-activity.

  Expressiveness: highest mean global rating

  Acceptance and warmth score remarkably lower than the other items

- Results confirmed for the 1st, 5th and 10th storytelling session separately.

Repeated measures MANOVA: no significant main effect of time (session): Wilks’ \( \lambda = 0.30 \), \( F(14,4) = 0.66 \), \( p = 0.75 \)
Results

Relationship of client characteristics to quality of staff interactive style

- sex
- chronological age
- developmental age
- having visual and/or hearing problems
- autism spectrum disorder
- epilepsy
- the scoring on the 11 factors of the Checklist Child Characteristics

Repeated measures
one-way
MANOVA/
MANCOVA:
no significant
main effect
Results

Relationship of staff characteristics to quality of staff interactive style

- job
- age
- experience with people with PIMD
- experience with the specific client

Repeated measures one-way MANOVA/ MANCOVA: no significant main effect
Conclusion & discussion

• moderate scores on different dimensions of interactive style: acceptable, but staff should do better. Training!
• high rating for expressiveness > indication of influence context on quality of interactive style?
• low rating for acceptance and warmth > cf. other research: emotional component in interaction needs further attention
• no evolution in time of interactive style quality: no regression, but no improvement either?
• no influence of client and staff characteristics (?)
Conclusion & discussion

Methodological issues

• instrument from parent-infant research
• selection of items from the original MBRS
• 5-point Likert-scale
• consensus method
Conclusion & discussion

Future research

• analysis of client interactive behavior
• relation to client effects?
• more sensitive measures
• comparison of interactive style quality in different contexts