2021 RESEARCH SEMINAR SERIES
14 July
This research was funded by La Trobe University and no external sources.
Background

- Quality of Life in supported accommodation is a major social and research issue
- Research continues to show variability in QoL between group homes
- Research, media expose and enquiries report poor quality support, abuse and neglect (UK Dept Health 2012, Royal Commission, 2020; Murphy et al., 2020)
- Staff practice based on Active Support is a major determinant of QoL (Bigby & Beadle-Brown, 2018)
- Structured observation has been the dominant method to measure staff practice and service user outcomes
- For example, review of research from 1980-1994
  - 40 studies service users’ engagement - 26 service user’s interactions with staff (Emerson & Hatton 1996)
- Australian program of research about embedding Active Support has used two observational measures
  - Engagement in meaningful activity and contact (EMAC- R) (Mansell & Beadle Brown, 2005)
  - Active Support Measure (ASM) (Mansell, Elliott, & Beadle-Brown, 2005).
- Resource and skill intensive – critiqued no direct input from service users – insufficient focus on relationships
Aims and Method

Aims

• Overview structured observation as an approach to measuring the quality of practice
• Why used? What measures used? Are there new measures?
• Build on review by Mansell in 2011 (Mansell, 2011)

Method

• Scoping review of peer reviewed literature from 2012-2021
• Searched for papers that report;
  • Use of observation as an approach to measuring staff practice in intellectual disability services
  • Development of observational measures of practice in intellectual disability services
  • Benefits of observation to measure staff practice
Findings

- Identified 25 relevant papers from 2012 – plus one PhD study using data base and hand searches
- Observational method seldom primary focus of papers and thus little commentary about these
  - 20 papers reported studies of training, implementation or experiences of Active Support in group homes (e.g. Beadle Brown et al., 2016 Mansell et al., 2013; Bigby et al., 2019)
  - 2 studies impact of training on nature of staff interactions with people supported in day programs (Johnson et al., 2017; Vanono et al., 2013)
  - 1 study interactions of community group members with person with intellectual disability (Chng et al. 2013)
  - 2 studies raised issues about relying on paperwork (McEwen et al., 2015; Quilliam et al., 2018)
Why structured observation

- Records what is happening in services – less reliant on interpretation - more objective than other methods
- Means of including people with severe and profound intellectual disability – who cannot self report about quality of support, for whom
  
  ‘no amount of adjustment can enable them to respond to interviews or questionnaires because of the nature and severity of their cognitive disability’ (Mansell, 2011, p 1.)

  Allows ‘feedback from people who struggle to express their experiences’ (Hurman, 2017, p.69)
- Avoid problems of proxies (family) who may not be close enough - or staff who have conflict of interest
- Avoids social desirability or low expectations when people are interviewed
- Avoids unreliability of other ways of judging quality of service or staff support. For example,
  
  - Lack of consistency between regulator/audit reports based on process and policies and research (Beadle-Brown et al., 2008; Netten et al., 2010)
  - Paperwork constructed by staff – what hope will happen – what managers want to hear- what should have happened (Quilliam et al., 2018)
Value of structured observation for research and practice

- Provides data for improving service quality
  
  “...quantitative observation has been used to evaluate service quality and to understand what lies behind variations in quality, in terms of the individual characteristics of people being supported, the kind of service supporting them and the organisation of that support as expressed in the pattern and content of staff-client interaction” (Mansell, 2011 p.6)

- Comparing engagement or staff practice between different types of service models, or similar models

- Comparing engagement of different groups of service users based on severity of disability

- Identifying relationships between service user engagement or other QoL outcomes, staff practice and other organisational or staff characteristics

- Impact of staff training - change in service user and/or staff practice: Active Support, Relationship building, Emotional intelligence, Positive Behaviour Support

- Basis for providing feedback to staff to improve practice (Beadle-Brown et al., 2015; Bigby & Humphreys., 2021)

- Making external judgements of service quality - auditors, regulator, community visitors
Observing what, whom and how

- Whether or not, for how long or how often a person with intellectual disability:
  - Is Engaged in activities
  - Is Disengaged
  - Displays communicable acts or behavior
  - Has contact with staff
  - Has contact from others - public or other service users

- Types of:
  - Engagement
  - Contact with staff

- Quality of interaction or relationship between a person and a staff member
  - How does the person respond to staff or staff to the person

- Real time observation
  - Momentary time sampling - what’s happening on the minute – how long engaged – how much contact
  - Continuous observation – specific period - computer assisted– how often and how long behaviours lasts and how relate to each other (contingency) e. g. challenging behaviour and staff contact

- Analysis of video recordings
Activity, behaviour and staff contact

- Two very similar measures focus on the person
- Categorise frequency and type of activity and behaviour, and staff behaviour/contact with them
- EMAC R 15/20 studies of Active Support since 2012
- Staff help and resident engagement 3 studies
- Variations over time addition of sub-categories such as non-social activity -AV
- Simple tallying % of time observed for category
- Interrater reliability reported

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<tr>
<th>EMAC R (Mansell &amp; Beadle-Brown 2005)</th>
<th>Staff help and resident engagement (Jones et al., 1999)</th>
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<td>Momentary time sampling</td>
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<td>Other – repetitive self-stimulatory</td>
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<th>Contact by staff</th>
<th>Staff behaviour</th>
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<td>Restraint physical or verbal</td>
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<td>Processing – doing something to person</td>
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<td>Other conversation</td>
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Contact other service users

Quality of support

• Most common Active Support Measure (ASM) (Mansell, Elliott, & Beadle-Brown, 2005).

• Focus on person and quality support received

• Combined with EMAC R – 15 of 20 in studies of Active Support
  • 15 items completed after 2-hour observation
  • Capture opportunities for involvement, skills with which staff interact, provide and support those opportunities (Mansell et al., 2013)
  • Extent and consistency of Active Support
  • Each item scored 0 to 3
  • Tallied and converted to percentage

ASM

• Age-appropriateness of activities and materials
• “Real” rather than pretend or very simple activities
• Choice of activities
• Demands presented carefully
• Tasks appropriately analysed to facilitate service user involvement
• Sufficient staff contact for service users
• Graded assistance to ensure service user success
• Speech matches developmental level of service user
• Interpersonal warmth
• Differential reinforcement of maladaptive behaviour
• Staff notice and respond to service user communication
• Staff manage serious challenging behaviour well
• Staff work as a coordinated team to support service users
• Teaching is embedded in everyday activities
• Written plans in routine use
More recent tools – Positive interactions

- **Positive Interactions Checklist** (Vanono et al., 2013)
- Measure the changed frequency of positive interactions by staff following training
- 8 Items - draws from ASM and EMAC R
- Percentage of positive interactions in a period
- Accompanying interview with service users to measure their experience of interactions
- Adapted by Baker et al., 2017 combined with elements of Dementia Care Mapping to measure staff interaction and style

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<th>Presentness</th>
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<td>Non-verbal warmth</td>
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<td>Choice</td>
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<td>Assistance</td>
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<td>Instruction</td>
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<td>Positive behaviour management interactions</td>
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More recent tools – staff support for basic needs

- **Self Determination Theory Observation system** - (Embregts et al., 2019)
- Improvement in staff support for basic needs following training – day program
- Adapted from observational system developed for elderly
- Derived from self determination theory
- 3 scales each rated on a 7 point scale
  - Staff respect for autonomy
  - Staff recognise emotional signals - relatedness
  - Staff support competence
- Focus dyad staff and person supported
- Video analysis 2 minute fragments scores summed

Each item has multiple concepts. For example, Staff respect autonomy
Support staff clearly respect and appreciate the ideas and opinions of the client. Moreover, support staff treat the client as an autonomous individual with their own wishes and beliefs. In addition, support staff offer opportunities to the client to express their own ideas and wishes.
More recent tools - staff interaction and relationships

Positive Engagement and Relationships Momentary Time Sampling (PEARmts) (Johnson et al., 2017)
- Change in staff interactions and relationship following training in model for developing relationships (Johnson et al., 2012)
- 5 relationship processes combined with EMAC R
- Day program

Rapport Rating Scale (Hurman, 2017)
- Identify rapport person and staff through subtle differences in behavior towards staff
- PhD study, based on Carr, 1994 – six items
- Video analysis
- Piloted with clinicians but suggests useful for regulators when something is not right

Recognising the individual
Sharing the moment
Connecting
Feeling good
Sharing the message

Non-verbal behaviour
- actions
- facial expression
- vocal sounds
- physical contact
- gesture
- eye gaze
Short Observational Framework for Inspectors (SOFI 2)

- Adapted from Dementia Care Mapping – service user mood – engagement – quality of staff interactions
- Used by Care Inspectorate Scotland care homes older people from 2014 - Optional use by UK CQC vis older people and people with intellectual disabilities
- Not available for review
- Early testing of Dementia Care Mapping with people with intellectual disability not promising
- Need to better tailor wellbeing codes to settings ‘not reflect the nature of what was actually seen’ (Jaycock et al. 2006; 2001)
- Complex coding requires extensive training
Conclusions

- EMAC R and ASM most widely used measures - engagement and staff contact – quality of support

- Few new measures - have focused on staff interactions / relationships more than support
  - draw on elements of ASM
  - include multiple concepts in single item - have complex scoring
  - piloted with small samples and not replicated – some rely on video analysis

- Reliability reported but not other psychometric properties

- No tools designed for managers or regulators of intellectual disability services

- Anecdotally some managers scoring check lists designed for feedback on practice not measuring quality

- Regulators rely on audits of processes/policies and interviews people who can self report

- Mansell argued that observation is key to capturing objective data about quality of staff support, particularly for people who cannot self report and thus to improving practice quality –but we need to
  ‘attend to definitions and codes making sure these address the questions of interest and ensuring they are properly developed and tested to be valid and reliable’ (Mansell, 2011, p)

- This hasn’t been done well - But we also need to develop simpler measures for non researchers
REFERENCES


Murphy, G. (2020). CQC inspections and regulation of Whorlton Hall: second independent report. CQC


Royal Commission into the Violence, abuse, neglect and exploitation of people with disability (2020). Interim Report
Psychometric Evaluation of the Active Support Measure

Dr Lincoln Humphreys, Professor Christine Bigby, Dr Tal Araten-Bergman, & Professor Teresa Iacono

This research was funded by the NDIS Quality and Safeguarding Commission
Background

• The Active Support Measure (ASM; Mansell et al., 2005) is the most frequently used observational measure of the quality of staff support for people with intellectual disabilities living in supported accommodation.

• Studies have shown that ASM scores are associated with service users’ levels of engagement (Beadle-Brown et al., 2016; Humphreys et al., 2020; Mansell et al., 2008).

• Despite frequent use, the psychometric properties of the ASM have not been tested and published.

Aims

What are the psychometric properties of the Active Support Measure?
The Active Support Measure

- Completed by researchers following observations of staff and people with intellectual disabilities.
- Completed for each person supported and in relation to the support they received from staff.
- Consists of 15 items. For example:
  - Choice of activities
  - Graded assistance to ensure client success
  - Interpersonal warmth
- Items are rated on a 4-point scale
  0 = poor, inconsistent support / the support was not provided/not observed
  3 = good, consistent support
- Some items are not rated if not observed. E.g., Differential reinforcement of other behaviour
Methods

- Secondary analysis of data previously collected using the ASM
- Participants were a subset from a longitudinal study into embedding Active Support and Practice Leadership in supported accommodation services in Australia.
- Data were collected from 2009 to 2019.
- After cleaning, the dataset included 1713 participants.
- To ensure data were independent, each participant could be in the dataset only once.
- For participants that were in the dataset more than once, one ASM was randomly selected.
- **Final dataset = 884**
- Average adaptive behaviour score across participants was 148.49 (SD = 61.71)
Analyses

- **Exploratory factor analysis**: to determine the underlying factor structure of the ASM
- **Cronbach’s alpha**: to test internal consistency of the ASM
- **Rasch analysis**: to further test the dimensionality of the ASM and its items
Results

Exploratory Factor Analysis

- 10 items loaded (> .40) on two factors
- The two factors accounted for 66% of the variance

Cronbach’s alpha = .94 and .78, indicating good internal consistency for the two factors

Rasch Analysis

- 10 items retained
- Indicated multidimensional structure
- Acceptable item fit indices and good reliability (person separation index = .90)

Between the results of the EFA and Rasch, 9 out of 10 items were overlapping
# EFA Results: Two factors comprise the ASM

**Factor 1: Supporting Engagement in Activities**

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<th>Item</th>
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<tr>
<td>3. Choice of activities</td>
<td>.94</td>
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<tr>
<td>5. Tasks appropriately analysed</td>
<td>.93</td>
</tr>
<tr>
<td>2. Real activities</td>
<td>.91</td>
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<tr>
<td>4. Demands presented carefully</td>
<td>.88</td>
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<tr>
<td>1. Age appropriateness</td>
<td>.86</td>
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<tr>
<td>7. Graded assistance to ensure client success</td>
<td>.73</td>
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<tr>
<td>14. Teaching embedded in everyday activities</td>
<td>.47</td>
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**Factor 2: Interacting with the Person**

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<th>Item</th>
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<td>8. Speech matches developmental level of client</td>
<td>.78</td>
</tr>
<tr>
<td>9. Interpersonal warmth</td>
<td>.72</td>
</tr>
<tr>
<td>11. Staff notice and respond to client behaviour</td>
<td>.64</td>
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Correlation between the two factors = .64
Results: Items not retained

- Five ASM items were not retained because:
  - The support was rated ‘not applicable’; missing data for this analysis
    10. Differential reinforcement of other behaviour (86%)
  - Issues with skewness (ratings of 0 – not observed)
    12. Staff manage serious challenging behaviour well (89%)
    15. Written programmes in routine use (92%)
  - Low loadings or communalities in the exploratory factor analysis
    13. Staff work as a team
    12 & 15
    6. Sufficient staff contact
- Rasch analysis supported removal of items 10, 12, 13, and 15, and indicated removal of 14.
Implications

- The 10-item ASM measures two dimensions of the quality of staff support:
  - Supporting Engagement in Activities
  - Interacting with the Person
- It has good psychometric properties
- The revised 10-item ASM may be easier for researchers to use because its shorter and items that were more difficult to rate have been removed
- The revised ASM can form the basis of the development of an observational tool for non-researchers
References


Development and validation of the “Observing Staff Support” (OSS) Tool

Dr Tal Araten-Bergman, Professor Christine Bigby, Dr Lincoln Humphreys & Professor Teresa Iacono

This research was funded by the NDIS Quality and Safeguarding Commission
Observing Staff Support (OSS) tool: Aim and rationale

- Structured observation is key to capturing objective data about quality of staff support, thus to improving practice quality.
- Currently there are no valid tools designed for non-researchers (managers or regulators of intellectual disability services)
- The Active Support Measure (ASM) has been used successfully by researchers to conduct observations of Active Support, however it is complex and requires extensive training to complete.
- Aim: to develop and to validate a new simple observational tool to evaluate the quality of staff support.
  - Based on the conceptual framework of the ASM
  - Easy to administer by non-researchers (frontline supervisors, managers and service regulators) to evaluate the quality of key aspects of support
Development and validation of the Observing Staff Support (OSS) tool

- Testing ASM Data
  Exploratory factor analysis, Rasch analysis and qualitative analysis of field notes.
  Identify key concepts and domains

- Item Generation

- Evaluation of Items: relevance and clarity, face validity
  Evaluation by experts
  Evaluation by target population

- Pre-test and evaluation of OSS concurrent validity
  Observations by researchers and frontline managers using OSS and ASM
  Interview with frontline supervisor managers
  Interview with researchers

- Development of training materials
  How to use the new tool, conduct observations and assess the quality of active support

- Development of OSS digital application

- Identification of the OSS key concepts and domains

- OSS v1 and instructions

- OSS v2

- Final OSS and instructions
Observing Staff Support (OSS) tool

• Focus of the observation: how one staff member provides support to one resident.

• Based on observations of 20 - 60 minutes

• Structure: the OSS tool consists of 8 main items and 2 additional items

• Scoring: each item is on a 3-point scale:
  1. In most or all instances, staff did not provide the support
  2. Staff sometimes provided and sometimes did not provide the support
  3. In most or all instances, staff provided the support
Developing the Observing Staff Support (OSS) tool: Generating items

A secondary analysis of ASM data: collected from longitudinal study

- ASM factor analysis
- Rasch analysis
- Analysis of qualitative data (i.e. field notes)

The analysis identified:

- Key aspects of quality of staff support to be included in the new observational tool
- Two dimensions of staff support:
  - a. Supporting engagement in activities
  - b. Interacting with the person

New items were generated to tap these dimensions and other aspects of support
Staff supporting engagement in activities

The following five items are about the way the staff member provides support to a person to engage in activities.

1. Offering real activities to be engaged

The extent that the staff member offers the person meaningful activities that have a real purpose (e.g. leisure, recreation, social, household or work activities).

Score

3  Most or all of the activities the staff member offered to the person had a real purpose
2  Some of the activities the staff member offered to the person had a real purpose
1  None of the activities the staff member offered to the person had a real purpose
Staff supporting engagement in activities

2. Offering choice of activities

The extent that the staff member provides the person with opportunities to make choices. This includes choice of activities, how to do them, and whether the person’s choice about participating (or not), when and for how long is respected by the staff member (i.e. the person is offered choice about what to do, how to do it, when and for how long).

- High score: In most or all instances, the staff member provided the person with opportunities to make choices
Staff supporting engagement in activities

3. Providing opportunities to engage the person

Staff who are skilled in active support can break complex activities into simpler parts to provide opportunities for the person to be engaged. This item is about the extent the staff member provides **opportunities** for the person to be **engaged** in **all or parts** of activities.

- High score: The staff member provided the person many opportunities to be involved in the activities or parts of them
Staff supporting engagement in activities

4. Providing the right type and amount of assistance

The extent the staff member provides the right type and amount of assistance for the person to engage in activities.

- High score: In most or all instances, the staff member provided the right type and amount of assistance for the person to engage in the activities
Staff supporting engagement in activities

5. Ensuring the message is clear to the person about what is being offered

The extent that the staff member **clearly communicates** (verbally and non-verbally) to the person what is being offered to them or what they are being asked to do.

- High score: In most or all instances, the staff member communicated what was being offered or expected in ways that were tailored to the person.
Interacting with the person

The following three items are about the staff member’s interactions with the person being supported.

6. Noticing and responding to the person’s communication

The extent that the staff member notices and responds to the person’s communication (verbally and non-verbally)

- High score: The staff member noticed and responded to all/most attempts made by the person to communicate
Interacting with the person

7. Respecting the person in all interactions

This item is about the quality of the relationship and interactions the staff member has with the person, and the extent that the staff member shows respect to the person and acknowledges their personhood.

- High score: In most or all instances, the staff member paid attention and showed interest in what the person experienced in the moment
Interacting with the person

8. Having friendly interactions

The extent that the staff member contributes to a friendly atmosphere and take opportunities to include the person in social interactions. This may include sharing a moment of fun with the person, bringing the person into a conversation with others, making positive comments about what the person is doing or experiencing, sharing humour through verbal or nonverbal means, or being encouraging through conversation or gestures.

- High score: The staff member’s interactions with the person created a friendly atmosphere
Additional items

Two additional items are scored only if opportunities for teaching and/or the person being supported exhibits behaviour that poses an immediate harm or damage to themselves or others.

Teaching something new

This item is about the extent that the staff member uses the available opportunities to teach the person something new.

- High score: The staff member used or took most or all of the available opportunities to teach the person something new
Additional items

Responding well to behaviour that is a danger to self or others

This item is about the extent that the staff member is confident (i.e. the staff member knows what they are doing) when they respond to a situation where a person’s behaviour poses an immediate harm or danger to themselves or others (i.e. the staff member responds to the person’s experiences, and ensures the person and any other people present are safe). Examples of these behaviours include aggression, self-injurious behaviour, and damage to property.

- High score: The staff member responded confidently to the person’s behaviour, emotions (feelings) and the situation
Next steps

• Finalise OSS tool validation
• Develop training materials about how to use the OSS tool
• Develop OSS tool digital application (App)
Benefits

Quality of staff support is linked to positive outcomes: quality-of-life for people with intellectual disabilities and to Job satisfaction for support workers (Beadle-Brown, Hutchinson & Whelton, 2012; Bigby & Beadle-Brown, 2018; Rhodes & Toogood, 2016).

The OSS tool could contribute to:

- Frontline supervisors providing better feedback and coaching to support workers.
- Enhancing support workers’ skills in active support.
- Enabling better monitoring of the quality of services by regulatory bodies.
- Enabling the development of benchmarks and standards for the quality of active support that could be implemented across all services.
- Enhancing the quality of support so that people with intellectual disabilities can experience better quality of life outcomes.