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Supporting the Direct Involvement of Students with Disabilities in Functional Assessment through use of Talking Mats®

Jill Bradshaw, Nick Gore and Cathy Darvell

Abstract

Purpose

Bowring *et al.*, describe ways of using the The Behavior Problems Inventory – Short Form (BPI-S), illustrating how to use clinical norms to evaluate change. This commentary focuses on the importance of also considering information gained directly from people with intellectual and developmental disabilities (IDD) during assessment.

Design

A pilot project involved interviews with four children with IDD. A Talking Mats® (TM) framework was used to gather children's views regarding challenging behaviours and variables relevant to a functional behavioural assessment, such as things they found to be reinforcing, things that set the occasion for challenging behaviour and things that helped prevent this.

Findings

The children were able to provide information and insight into several areas that are influential in the maintenance of behaviour that challenges. Some of this information may not have been obtainable from other sources or informants using traditional assessment methods alone.

Originality/Value

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3 Gathering the views of people with IDD is important. The Convention on the Rights
4 of Persons with Disabilities (CRPD) states that people have the right to be heard.
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6 Many people with IDD have difficulties communicating. A Talking Mats Framework
7 is one method by which people may be able to express their views. Taking the
8 views of the individual into account during the process of gathering information about
9 behaviours that challenge should lead to greater understanding of the functions of
10 any behaviours and therefore to more targeted, acceptable and effective forms of
11 support.
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22 **Keywords** challenging behaviour, communication challenges, user views, Talking
23 Mats, Functional Behavioural Assessment.
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28 **Introduction**

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30 Children with intellectual and developmental disabilities (IDD) are at increased risk of
31 displaying behaviours that challenge, relative to peers who do not have disabilities
32 (Totsika *et al.*, 2011). Without appropriate support such behaviours tend to persist
33 (Murphy *et al.*, 2005) and significantly impact on the health and wellbeing of the child
34 and those that care for them (Emerson and Einfeld, 2011). A large body of research
35 has demonstrated that challenging behaviour (CB) often serves important functions
36 for the individual who displays it (Hastings *et al.*, 2013). In this light, interventions
37 that respond proactively to functions of CB identified for an individual and support
38 communication, quality of life, health and wellbeing more broadly, are recognised as
39 the most effective way of both improving positive outcomes and reducing challenging
40 behaviour over the long term (Gore *et al.*, 2013).
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3 Positive behavioural approaches to support typically involve the completion of a
4 Functional Assessment (FA). This process requires individualised and systematic
5 gathering of data to identify factors that lead to the development and maintenance of
6 challenging behaviour and alternatives. Typically this involves completing direct
7 observations of the individual being assessed and ascertaining the perspectives of
8 other people who provide support via use of questionnaires and structured
9 interviews. Measures such as the BPI-S, as described in the article by Darren
10 Bowring and colleagues, are particularly helpful in this regard, enabling services and
11 families to participate in the assessment and evaluation of behaviour change.
12 Engagement with stakeholders who support the focal person is however only part of
13 what is needed in a truly person-centred approach to assessment. .
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29 The perspectives of the focal individual themselves have not traditionally been
30 incorporated into the majority of FA procedures. In part this has been due to the
31 dominant use of FA to support people with severe IDD, for whom this was generally
32 not considered possible because of their significant communication impairments.
33 There have, however, been a small number of attempts to directly interview typically
34 developing children and those with mild IDD during FA interviews (Murdock *et al.*,
35 2005; Stage *et al.*, 2006; Wehmer *et al.*, 2004; Kinch *et al.*, 2001).
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46 In these studies there have been mixed findings regarding the correspondence
47 between student and carer interview responses, though this is not in itself
48 necessarily problematic. As noted by the majority of authors, it is possible that these
49 differences simply reflect the differing perspectives, experiences and priorities of
50 respondents. Most notably, Stage *et al.* (2006) highlighted that interview data from
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3 both students and carers allowed the development of hypotheses that could be
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5 verified through other (direct) assessment methods and ultimately inform the
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7 development of effective intervention plans. Whilst these studies have therefore
8
9 been useful in supporting greater involvement of people with disabilities in their own
10
11 assessment there is a pressing need to extend this work to support those with more
12
13 severe communication difficulties.
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16 The child's own perspective on their life, needs and the behaviour they display is a
17
18 potentially valuable data source that may enrich the quality and utility of a functional
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20 assessment with the potential to create positive change. This is now emphasised in
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22 policy and guidance documents not just for those with mild disabilities or verbal
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24 communication abilities but for *all* children throughout health, education and social
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26 care pathways (United Nations Convention on the Rights of a Child, 1992).
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29 The use of Talking Mats (TM) may provide one way in which a wider range of
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31 children can be directly involved in their own FA. TM is a communication tool which
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33 enables people to organise and express their views (Cameron and Murphy, 2002). It
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35 employs a structured approach to aid thinking and planning. Each TM consists of a
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37 set of symbols or pictures that are tailored to the subject to be discussed. It is
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39 helpful as both an aid to understanding and to expression (Murphy and Cameron,
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41 2008). It is a powerful tool that enables the person who is doing the Mat (the thinker)
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43 to contribute their ideas and retain control of the conversation. It enables people to
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45 move at *their* pace, with the holding of the symbol acting as a powerful cue to others
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47 as to whose 'turn' in the conversation it is. It can provide a concrete, visual
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49 representation of the person's thinking about a particular topic which can then be
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51 communicated to other people.
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3 Each TM consists of a set of symbols relating to a subject area (a topic) to be
4 discussed. Open questions are then asked in relation to the presentation of each
5 symbol e.g. 'how do you feel about?'. A top scale is introduced e.g. 'happy', 'unsure'
6 and 'sad'. Interviewees then place each symbol on an area of the Mat that
7 corresponds to their views, feelings or experiences about that symbol. Symbol
8 placement can be used as a starting point for further communication exchanges.
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18 In this preliminary study we explored the potential of using TMs to support young
19 children to participate during FAs. The study also occurred in the wider context of
20 related research and guidance exploring engagement with children with IDD in other
21 aspects of PBS (Challenging Behaviour Foundation, 2017)
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28 **Method**

29 *Participants*

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32 Four children took part in this study. All children attended a special school for pupils
33 with IDD in England. Children were all male, seven years of age and were described
34 as having moderate IDD. One child had Down Syndrome. All were assessed by
35 school staff as having the communication abilities to use TM (being able to
36 understand at least two key ideas in an utterance) and had experience of using TMs.
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38 Children were described by staff and caregivers as presenting with the following
39 forms of challenging behaviour at home and/or school: aggression to others,
40 aggression to property, running away, verbal aggression, refusing to take part in
41 activities.
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53 *Procedure*

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3 Ethical approval was gained from the Tizard Centre Ethics Committee. Consent
4 procedures were completed with the parents of all children following the receipt of
5 information packs about the study. All TM interviews were completed by the third
6 author. Interviews were carried out over two occasions and lasted between 20 and
7 30 minutes. All interviews were video-taped to support later analysis. It was agreed
8 that interviews would be terminated if children requested this or indicated their non-
9 assent in any way. Information gained from the interview was later summarised into
10 a report and fed back to the child's support team and family. These reports were
11 used by the school to inform the children's behaviour support plans.
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24 *Interviews*

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26 The interview schedule and corresponding TM procedure were devised by the first
27 and second author. Interviews all started with the most concrete topic areas:
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33 Mat 1: Things I like (Reinforcers)

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35 This section of the interview allowed children to highlight events and items they did
36 and did not like (e.g., foods, drinks, activities). Children were presented with up to 15
37 symbol cards, one at a time and asked 'tell me about (area); is that something you
38 like, don't like or are not sure about.' Children were then able to place the card on
39 the area of the Mat that corresponded to their views.
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48 Mat 2: Things I do (Challenging Behaviours)

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50 In this section children were asked about a number of challenging behaviours
51 (including kicking, hitting and self-injury). Children were invited to use the Mat to
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3 indicate whether each behaviour was something they did ('this is me'), did not do
4 ('this is not me') or was something they were 'unsure' about.
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9 **Mat 3: Things that help on a bad day (De-escalation strategies)**

10 Children were asked about things that helped them on a 'bad day' (when challenging
11 behaviour occurred or might be likely) in the third section of the interview. This
12 included a range of possible support responses to behaviours that challenge
13 including access to favoured activities, food, drinks and social support. Children
14 placed items on the Mat to indicate whether it 'helped', 'did not help' or they were
15 'unsure' about it.
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26 **Mats 4 and 5: Things that make a bad day (Setting events, motivating operations**
27 **and discriminative stimuli)**

28 The fourth and fifth Mats asked children to indicate variables that contributed to a
29 'bad day' for them (i.e., when challenging behaviour might be more likely as
30 ascertained in the antecedent sections of most FA interviews). The fourth Mat
31 included items that corresponded to different periods of the day, different locations
32 and sensory stimuli. The fifth Mat continued an exploration of antecedent variables,
33 with a focus on more specific events that commonly influence challenging behaviour
34 (such as being told 'no', waiting, not understanding). In both cases, children were
35 asked to indicate whether a given event or setting was easy or difficult for them (or
36 was something they were not sure about) by placing items in corresponding areas of
37 the Mat.
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54 **Mat 6: Things that are good for me (Preventative variables)**
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3 In the final Mat, children were given an opportunity to highlight variables that were
4 important for their general wellbeing and life quality and might therefore reduce the
5 likelihood of behaviour that challenges. This included family and friends, health-
6 related behaviours, and different forms of support. Children used the Mat to indicate
7 whether the item was important, not important or something they were not sure
8 about.
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18 **Results**

19 *Effectiveness of Talking Mats*

20 All four children completed all six Mats (though not all Mats were rated as being
21 effective for all children – see later). The Effectiveness Framework of Functional
22 Communication (EFFC) was completed by the first author (an accredited TM trainer)
23 to rate the TM videos. The second author also rated 20% of the total sample with a
24 percentage agreement of 82% between ratings. Each Mat was rated on seven
25 criteria on a scale from 0-4 (where 0=never and 4 = always). A score of 75% or
26 above is considered to indicate effective communication. All participants were rated
27 as either always or often engaged (engagement defined as ‘the social closeness that
28 is established in the interaction and maintained through rapport and joint attention’,
29 <https://www.talkingmats.com/wp-content/uploads/2016/07/EFFC-2016.pdf>)
30 demonstrating that they enjoyed the process of completing the TMs.
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48 For one participant, effective communication was not achieved on any of the topics.
49 He was, however, able to communicate some views on some Mats (Mat 1 in
50 particular) and, where we had confidence around individual symbols, we included
51 this in our feedback. The remaining three participants had average effectiveness
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3 scores of 93%. These ranged from 88-100% per individual and 88-99% per Mat,
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5 with Mat one (the most concrete Mat) having the highest score.
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7 *Analysis*

8 9 Mat 1: Things I like

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11 All four children were able to communicate things they did and did not like,
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13 highlighting potential reinforcers. In some cases, this provided information that had
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15 not previously been known by teaching staff, including one child who described the
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17 importance of having access to riding bikes at school. Some children were also able
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19 to add more information about options that were presented. For example, one child
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21 described how he found friends quite difficult because of some of the noises made
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23 by one of his peers and that he did not like arts and crafts because they were too
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25 hard. The children were also able to add to the suggestions that we had prepared
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27 for them e.g., specifying connect four as a game they enjoyed, or their preferred type
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29 of snack (crisps, apple) or type of drink (water, apple juice).
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35 Mat 2: Things I do

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37 The children were able to communicate about a range of challenging behaviours,
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39 including biting, slapping or hitting, scratching, having a tantrum and throwing. The
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41 children were able to provide some further information on the decision they had
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43 made to place some symbols on the Mat. For example, when placing the symbol
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45 'throwing' under the scale 'this is not me', one child said 'I care about my toys' and,
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47 when placing the symbol 'tantrums', said 'I do that with mum'. The children were
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49 also able to add to our prepared options e.g., adding in 'pushing' and 'pulling' to
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51 describe behaviours they displayed.
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Mat 3: Things that help on a bad day

Children were further able to express their views about what might help them when having a 'bad day' that could usefully inform support strategies and de-escalation approaches. The results were individual to the child (as would be expected) but with some common themes, for example being alone or being told-off were reported not to help by all children who completed this Mat. Again, children were able to provide some additional information, e.g., 'Going for a walk' was placed as unhelpful as *'it does take us a long time to get to places and my feet ache when I walk so far'*.

Mats 4,5 and 6

The children were able to give their views on a range of options that were presented to them in terms of things that might contribute to a 'bad day' and things that might help them to have good days. The topics covered in these TMs were less concrete but children were able to provide some information e.g., when asked about planning for the future, one child responded that 'I am going to be the boss of the school and make the rules! (Of course, this included a rule about being able to ride bikes at school when he wanted to). Another child responded that he found the start of the school day more difficult. For one child, being with family (though not necessarily his sister) was described as helpful.

Discussion

This was an exploratory study to see whether it was possible to elicit children's views on their own behaviours that challenge and obtain first-hand information directly relevant to a FA and future support. As a first, brief study, conducted with limited resources it was only possible to include a small sample size, ask a subset of

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3 possible question areas and additional forms of assessment and data collection were
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5 not feasible.
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9 It was however possible to gain at least some information from all four children,
10 demonstrating the potential for children's direct involvement in future practice and
11 research, consistent with findings from related programmes of research (Challenging
12 Behaviour Foundation, 2017). Overall, children were better able to give their views
13 on the more concrete topics (for instance preferred activities) but some were also
14 able to give information on much more abstract topics including their own behaviour
15 and variables that influenced this. Furthermore, following feedback to teaching staff it
16 was possible for some of this information to be included in future support plans (for
17 example, bikes were made available at school on a Friday afternoon for the child
18 who had expressed the importance of these for helping him cope on a 'bad day').
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33 In practice, assessment procedures in PBS need to incorporate and triangulate a
34 range of methodologies and inputs from multiple stakeholders, drawing on tools such
35 as the BPI-S as described by Darren Bowring and colleagues, together with direct
36 observation and other informant-based scales and interviews. Ensuring people with
37 disabilities have a voice and that their views and opinions are used as part of the
38 PBS process must however go hand in hand with the evolution of more formal
39 assessment tools.
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50 TMs may be a useful way in which involvement of the focal person can be
51 maximised but is only one possible approach and may not be accessible to all. A
52 challenge therefore remains for researchers and practitioners to develop further
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3 ways and opportunities of engaging with people with disabilities who present with
4 behaviours that challenge, to guide, inform and ensure the effectiveness and
5 appropriateness of support.
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