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

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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
Gathering the views of people with IDD is important. The Convention on the Rights of Persons with Disabilities (CRPD) states that people have the right to be heard. Many people with IDD have difficulties communicating. A Talking Mats Framework is one method by which people may be able to express their views. Taking the views of the individual into account during the process of gathering information about behaviours that challenge should lead to greater understanding of the functions of any behaviours and therefore to more targeted, acceptable and effective forms of support.

**Keywords** challenging behaviour, communication challenges, user views, Talking Mats, Functional Behavioural Assessment.

**Introduction**

Children with intellectual and developmental disabilities (IDD) are at increased risk of displaying behaviours that challenge, relative to peers who do not have disabilities (Totsika et al., 2011). Without appropriate support such behaviours tend to persist (Murphy et al., 2005) and significantly impact on the health and wellbeing of the child and those that care for them (Emerson and Einfeld, 2011). A large body of research has demonstrated that challenging behaviour (CB) often serves important functions for the individual who displays it (Hastings et al., 2013). In this light, interventions that respond proactively to functions of CB identified for an individual and support communication, quality of life, health and wellbeing more broadly, are recognised as the most effective way of both improving positive outcomes and reducing challenging behaviour over the long term (Gore et al., 2013).
Positive behavioural approaches to support typically involve the completion of a Functional Assessment (FA). This process requires individualised and systematic gathering of data to identify factors that lead to the development and maintenance of challenging behaviour and alternatives. Typically this involves completing direct observations of the individual being assessed and ascertaining the perspectives of other people who provide support via use of questionnaires and structured interviews. Measures such as the BPI-S, as described in the article by Darren Bowring and colleagues, are particularly helpful in this regard, enabling services and families to participate in the assessment and evaluation of behaviour change. Engagement with stakeholders who support the focal person is however only part of what is needed in a truly person-centred approach to assessment.

The perspectives of the focal individual themself have not traditionally been incorporated into the majority of FA procedures. In part this has been due to the dominant use of FA to support people with severe IDD, for whom this was generally not considered possible because of their significant communication impairments. There have, however, been a small number of attempts to directly interview typically developing children and those with mild IDD during FA interviews (Murdock et al., 2005; Stage et al., 2006, Wehmer et al., 2004; Kinch et al., 2001).

In these studies there have been mixed findings regarding the correspondence between student and carer interview responses, though this is not in itself necessarily problematic. As noted by the majority of authors, it is possible that these differences simply reflect the differing perspectives, experiences and priorities of respondents. Most notably, Stage et al. (2006) highlighted that interview data from
both students and carers allowed the development of hypotheses that could be verified through other (direct) assessment methods and ultimately inform the development of effective intervention plans. Whilst these studies have therefore been useful in supporting greater involvement of people with disabilities in their own assessment there is a pressing need to extend this work to support those with more severe communication difficulties.

The child’s own perspective on their life, needs and the behaviour they display is a potentially valuable data source that may enrich the quality and utility of a functional assessment with the potential to create positive change. This is now emphasised in policy and guidance documents not just for those with mild disabilities or verbal communication abilities but for all children throughout health, education and social care pathways (United Nations Convention on the Rights of a Child, 1992).

The use of Talking Mats (TM) may provide one way in which a wider range of children can be directly involved in their own FA. TM is a communication tool which enables people to organise and express their views (Cameron and Murphy, 2002). It employs a structured approach to aid thinking and planning. Each TM consists of a set of symbols or pictures that are tailored to the subject to be discussed. It is helpful as both an aid to understanding and to expression (Murphy and Cameron, 2008). It is a powerful tool that enables the person who is doing the Mat (the thinker) to contribute their ideas and retain control of the conversation. It enables people to move at their pace, with the holding of the symbol acting as a powerful cue to others as to whose ‘turn’ in the conversation it is. It can provide a concrete, visual representation of the person’s thinking about a particular topic which can then be communicated to other people.
Each TM consists of a set of symbols relating to a subject area (a topic) to be
discussed. Open questions are then asked in relation to the presentation of each
symbol e.g. ‘how do you feel about?’. A top scale is introduced e.g. ‘happy’, ‘unsure’
and ‘sad’. Interviewees then place each symbol on an area of the Mat that
corresponds to their views, feelings or experiences about that symbol. Symbol
placement can be used as a starting point for further communication exchanges.

In this preliminary study we explored the potential of using TMs to support young
children to participate during FAs. The study also occurred in the wider context of
related research and guidance exploring engagement with children with IDD in other
aspects of PBS (Challenging Behaviour Foundation, 2017)

Method

Participants

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

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

*Interviews*

The interview schedule and corresponding TM procedure were devised by the first and second author. Interviews all started with the most concrete topic areas:

**Mat 1: Things I like (Reinforcers)**

This section of the interview allowed children to highlight events and items they did and did not like (e.g., foods, drinks, activities). Children were presented with up to 15 symbol cards, one at a time and asked ‘tell me about (area); is that something you like, don’t like or are not sure about.’ Children were then able to place the card on the area of the Mat that corresponded to their views.

**Mat 2: Things I do (Challenging Behaviours)**

In this section children were asked about a number of challenging behaviours (including kicking, hitting and self-injury). Children were invited to use the Mat to
indicate whether each behaviour was something they did (‘this is me’), did not do
(‘this is not me’) or was something they were ‘unsure’ about.

Mat 3: Things that help on a bad day (De-escalation strategies)

Children were asked about things that helped them on a ‘bad day’ (when challenging
behaviour occurred or might be likely) in the third section of the interview. This
included a range of possible support responses to behaviours that challenge
including access to favoured activities, food, drinks and social support. Children
placed items on the Mat to indicate whether it ‘helped’, ‘did not help’ or they were
‘unsure’ about it.

Mats 4 and 5: Things that make a bad day (Setting events, motivating operations
and discriminative stimuli)

The fourth and fifth Mats asked children to indicate variables that contributed to a
‘bad day’ for them (i.e., when challenging behaviour might be more likely as
ascertained in the antecedent sections of most FA interviews). The fourth Mat
included items that corresponded to different periods of the day, different locations
and sensory stimuli. The fifth Mat continued an exploration of antecedent variables,
with a focus on more specific events that commonly influence challenging behaviour
(such as being told ‘no’, waiting, not understanding). In both cases, children were
asked to indicate whether a given event or setting was easy or difficult for them (or
was something they were not sure about) by placing items in corresponding areas of
the Mat.

Mat 6: Things that are good for me (Preventative variables)
In the final Mat, children were given an opportunity to highlight variables that were important for their general wellbeing and life quality and might therefore reduce the likelihood of behaviour that challenges. This included family and friends, health-related behaviours, and different forms of support. Children used the Mat to indicate whether the item was important, not important or something they were not sure about.

Results

Effectiveness of Talking Mats

All four children completed all six Mats (though not all Mats were rated as being effective for all children – see later). The Effectiveness Framework of Functional Communication (EFFC) was completed by the first author (an accredited TM trainer) to rate the TM videos. The second author also rated 20% of the total sample with a percentage agreement of 82% between ratings. Each Mat was rated on seven criteria on a scale from 0-4 (where 0=never and 4 = always). A score of 75% or above is considered to indicate effective communication. All participants were rated as either always or often engaged (engagement defined as ‘the social closeness that is established in the interaction and maintained through rapport and joint attention’, https://www.talkingmats.com/wp-content/uploads/2016/07/EFFC-2016.pdf) demonstrating that they enjoyed the process of completing the TMs.

For one participant, effective communication was not achieved on any of the topics. He was, however, able to communicate some views on some Mats (Mat 1 in particular) and, where we had confidence around individual symbols, we included this in our feedback. The remaining three participants had average effectiveness
scores of 93%. These ranged from 88-100% per individual and 88-99% per Mat, with Mat one (the most concrete Mat) having the highest score.

Analysis

Mat 1: Things I like

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

Mat 2: Things I do

The children were able to communicate about a range of challenging behaviours, including biting, slapping or hitting, scratching, having a tantrum and throwing. The children were able to provide some further information on the decision they had made to place some symbols on the Mat. For example, when placing the symbol ‘throwing’ under the scale ‘this is not me’, one child said ‘I care about my toys’ and, when placing the symbol ‘tantrums’, said ‘I do that with mum’. The children were also able to add to our prepared options e.g., adding in ‘pushing’ and ‘pulling’ to describe behaviours they displayed.
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
possible question areas and additional forms of assessment and data collection were not feasible.

It was however possible to gain at least some information from all four children, demonstrating the potential for children's direct involvement in future practice and research, consistent with findings from related programmes of research (Challenging Behaviour Foundation, 2017). Overall, children were better able to give their views on the more concrete topics (for instance preferred activities) but some were also able to give information on much more abstract topics including their own behaviour and variables that influenced this. Furthermore, following feedback to teaching staff it was possible for some of this information to be included in future support plans (for example, bikes were made available at school on a Friday afternoon for the child who had expressed the importance of these for helping him cope on a ‘bad day’).

In practice, assessment procedures in PBS need to incorporate and triangulate a range of methodologies and inputs from multiple stakeholders, drawing on tools such as the BPI-S as described by Darren Bowring and colleagues, together with direct observation and other informant-based scales and interviews. Ensuring people with disabilities have a voice and that their views and opinions are used as part of the PBS process must however go hand in hand with the evolution of more formal assessment tools.

TMs may be a useful way in which involvement of the focal person can be maximised but is only one possible approach and may not be accessible to all. A challenge therefore remains for researchers and practitioners to develop further
ways and opportunities of engaging with people with disabilities who present with
behaviours that challenge, to guide, inform and ensure the effectiveness and
appropriateness of support.

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