Practicality, utility and face-validity of the dynamic support database

Trixie Mottershead and Ceri Woodrow

Trixie Mottershead is based at the East Cheshire Community Learning Disability Team, Cheshire and Wirral Partnership NHS Foundation Trust, Cheshire, UK.
Ceri Woodrow is based at the Assessment and Treatment Unit for Adults with a Learning Disability, Cheshire and Wirral Partnership NHS Foundation Trust, Cheshire, UK.

Abstract

Purpose – *The purpose of this paper is to explore the clinical perspective of the practicality, utility and face-validity of the dynamic support database (DSD) Red, Amber, Green (RAG) rating support tool within adult learning disabilities services in a North West NHS Foundation Trust. The aim of the current project is to evaluate the practicality, utility and face-validity of the DSD RAG rating support tool, as reported by clinicians who have been employing it.*

Design/methodology/approach – *A mixed-methods design was utilised by asking clinicians to complete a questionnaire in relation to the DSD Support Tool. Questionnaires were distributed across three community learning disability teams within the North West. A total of 50 clinicians completed the questionnaire which included rated responses for quantitative analysis and free-text comments for qualitative analysis.*

Findings – *Positive ratings given by clinicians suggested good practicality, utility and face-validity in relation to the tool. Analysis of the free-text comments suggested that the tool supported clinical judgement in a standardised way and helped discussions with commissioners. Feedback also provided insights into how the DSD support tool could be improved.*

Research limitations/implications – *Further investigation would be required to yield higher numbers of participation across NHS Trusts to add reliability to the present findings.*

Originality/value – *The DSD support tool has been used within the NHS Foundation Trust for the last 12 months however the practicality, utility and face-validity of the tool had not been explored from the clinician perspective.*

Keywords *Perspective, Utility, Learning disability, Dynamic support database, Face-validity, Practicality*

Paper type *Research paper*

Introduction

Since the investigation into Winterbourne View (Transforming Care and Commissioning Steering Group, 2014) there has been a cross-government commitment to transform care for those with an intellectual disability (ID) and/or autism who display behaviours that are challenging to manage. This commitment was designed to ensure that the cruelty exposed at Winterbourne View hospital in the assessment, treatment and rehabilitation of adults with an ID and/or autism would not be repeated (Flynn and Citarella, 2013). The "Building the Right Support" national plan aims to strengthen patient support through community services and reduce the need to rely upon inpatient admission in the event of behaviours that challenge (NHS England, 2015a). Additionally the New Service Model (NHS England, 2015b) reflects these aims by employing supportive strategies for those at risk of displaying challenging behaviour; respecting the rights, independence, choice and access to services for all people with an ID and/or autism.

There are many individual differences that may increase a person's vulnerability to hospital admission for those with an ID. For example, a person with diagnoses of both schizophrenia and ID are at increased risk of admission (Cowley *et al.*, 2005). Cowley *et al.* (2005) also found that physical aggression and living independently were predictors of inpatient admission for this population. Aggression towards others and psychotropic polypharmacy was found to significantly predict admission into specialised inpatient units (Modi *et al.*, 2015). Raitasuo *et al.* (1999) found that hospital admissions for people with ID may also be related to transitions in

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living and poor economic status. The Dynamic Support Database (DSD), originally the "at risk of admission register", was introduced within the initial Care and Treatment Review (CTR) Policy document, released in October 2015 (NHS England, 2015c). The CTR guidance document (NHS England, 2015a) specifically advises local health and care services to develop a dynamic register to enable local services to meet the needs of people with an ID and/or autism who display behaviour that challenges or are at risk of displaying behaviour that challenges. CTR programmes aim to review individual patient care to support person centred packages of support and thereby reduce unnecessary inpatient admissions and reduce the length of stay for people who are admitted.

The Cheshire and Wirral Partnership (CWP) NHS Foundation Trust DSD RAG rating support tool was designed to unify and strengthen knowledge through standardisation; by indicating the risk of an inpatient admission (to an assessment and treatment or mental health unit), as high risk (red), moderate risk (amber) or low risk (green), using a series of standardised questions (see Appendix 2). The DSD RAG rating support tool highlights a set pathway for adults with an ID dependent on the RAG rating (see Figure 1). Input may include support from intensive support teams or increasing packages of care on a short-term basis (NHS England, 2017).

Individuals identified as "green" using the DSD RAG rating support tool are considered unlikely to require a hospital admission and the referred piece of work would be completed by the community team as usual. People identified as "amber" are people identified as having a significant risk of admission and therefore regular MDT monitoring would be required. In addition to this, for those individuals rated as "red" an admission avoidance meeting would be held with the MDT, local authority, commissioners and providers as these individuals are an imminent risk of admission. The DSD RAG rating support tool has been used within CWP NHS Foundation Trust for the last 12 months. The aim of the current project is to develop an understanding of the practicality (the experience of using the tool), utility (the use of the tool) and face-validity (how effective the tool is) of the DSD RAG rating support tool, as reported by clinicians who have been employing it for the last 12 months.

Method

Study design

A mixed methods approach was taken to explore the clinical perspective allowing for quantitative findings to be supported by qualitative comments so that relevant theory may be extracted from the data.

Data collection. The questionnaire was distributed to clinicians via hard copy. Four questions aimed at exploring the clinician's perspective regarding practicality, utility and face-validity of the tool using a five-point Likert scale for responses alongside a free-text question (see Appendix 1).

Data sample (participants)

A total of 69 clinicians were asked to participate in the study. via a hard copy of the questionnaire across; West Cheshire (30 clinicians), East Cheshire (18 clinicians) and Wirral (21 clinicians). A total of 50 participants completed the questionnaire (72 per cent). The job roles of the participants varied across the (MDT) and included: Occupational Therapists, Speech and Language Therapists, Nurses, Clinical Psychologists, Psychiatrists, Support Workers, Assistant Practitioners and Physiotherapists. All participants had been using the DSD RAG rating support tool over the last 12 months. Due to confidentiality reasons participant location and other demographical data were not identified within the questionnaire.

Procedure

Quantitative analysis

The researcher calculated the frequencies and percentages from the data and presented the results within histograms to give a graphical representation for each question. Participants were instructed to make only one selection to each question.

Qualitative analysis

The qualitative data were analysed using content analysis (Hsieh and Shannon, 2005). A total of 19 comments were provided (38 per cent of the sample). Labels for the codes emerged from the data; these labels were used as the foundation of the coding scheme. The codes were distributed into categories and themes with regard to their relationship with each other. The themes were chosen following a process of systematic evaluation of the data whereby Microsoft Word was used to highlight words relating to similar topics. These words were then categorised in relation to their overall meaning and grouped together. From these groupings, themes emerged which represented superordinate constructs from the data. The second author then reviewed and agreed the themes.

Results

Quantitative findings

Clinical perspective of the practicality of the tool. Figure 1 shows that a majority of participants rated the tool as "very easy" to complete.

Clinician perspective on the utility of the tool

Figure 2 shows that a majority of participants rated the utility of the tool positively.

Figure 3 shows that a majority of participants would recommend the DSD support tool to other trusts.

Figure 1 On a scale from 1 (being very difficult) to 5 (being very easy), please rate the ease of completion of the DSD support tool?

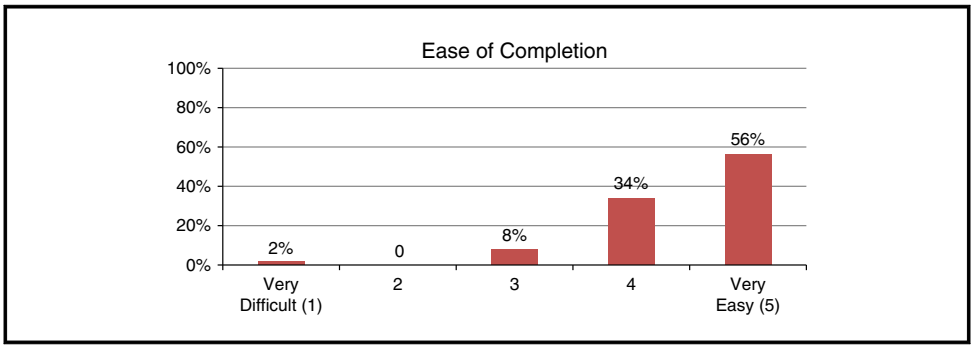


Figure 2 On a scale from 1 (not at all) to 5 (extremely useful), please rate the utility of the DSD in helping the person you work with?

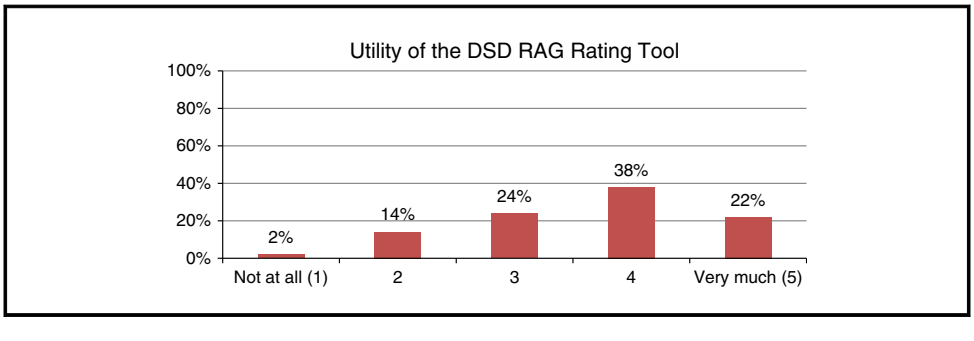
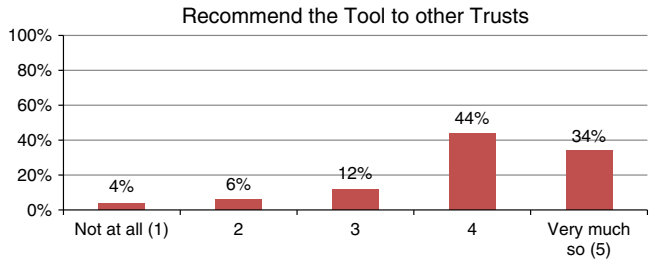


Figure 3 On a scale from 1 (not at all) to 5 (extremely useful), please rate the extent to which you would recommend the DSD support tool to other Trusts that don't currently use it?



Clinical perspective of the face-validity of the tool

Figure 4 also shows that participants felt the tool reflects the patient's need for admission.

Content analysis

Free-text comments were left by 38 per cent of responders. Analysis of the free-text comments provided codes relating to both negative (68 per cent) and positive (32 per cent) aspects of the DSD RAG rating support tool, as explored by clinicians within the clinical setting.

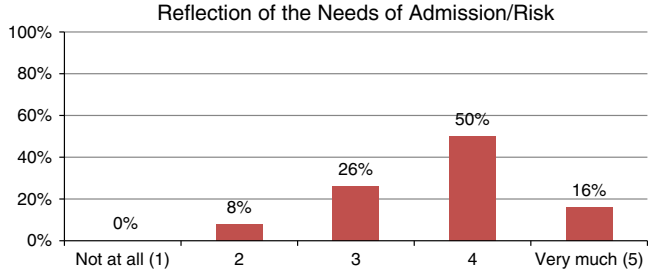
Negative comments criticised the reliability of the DSD RAG rating support tool to determine service user risk of admission to hospital. Specifically factors increasing/ influencing the risk of admission were identified. "Physical risk", "social risk" and "forensic risk" were considered to increase the RAG rating despite them not being perceived as a contributing factor to risk of admission to an assessment and treatment or mental health unit:

> There are occasions where a service user will be alerted amber but will not need a hospital admission i.e. if they have a forensic history and have alcohol dependency they will score high.

Additionally, the recording of the "presenting issue" was perceived to increase the RAG rating due to duplication in recording rather than increased risk of admission:

> One potential issue that can come up is that the same presenting issue or problem might be marked down twice. For example, if someone has recently been discharged from hospital and was adjusting to living at home again I would initially be likely to mark this as a significant life event. However, the later item "Has the person been recently discharged from long stay in hospital?" also refers to the same thing.

Figure 4 On a scale from 1 (not at all) to 5 (very much), please rate how well you feel the DSD support tool ratings reflect the needs of admission/risk presented by the service user?



Positive comments reflected the DSD RAG rating support tool to support "defensible decisions" in a "clear" "traffic light system". Codes within this theme ("defensible decisions", "clear" and "traffic light system") highlighted the easy-read, straight forward aspect of the tool which allows for a clear evidence base for clinical decisions.

> Quick to do and a good piece of evidence to talk to commissioners and relevant others.

> I think the DSR is a very helpful tool to aid clinical reasoning when working with someone […].

Discussion

Summary of findings

From the analysis of clinician perspectives in relation to the practicality, utility and face-validity of the support tool, 90 per cent of participants rated the support tool as easy to complete (responses of 4 and 5 on the five-point Likert scale were grouped together as positive); 66 per cent of participants rated the support tool as giving a good representation of the needs of the service user and their risk of admission (responses four and five grouped together); 60 per cent of participants rated the support tool as being useful in helping the person they are working with (responses of four and five grouped together); 78 per cent of participants rated that they would recommend the support tool to other trusts that do not currently use it (responses four and five grouped together). Overall the practicality, utility and face-validity of the DSD RAG rating support tool, based on the responses given by participants at the time of questionnaire completion, were positively rated. Positive comments left by clinicians suggested that the tool was clear and easy to read, thus potentially supporting clinical judgement in a standardised way. The tool has been considered to encourage the employment of supportive strategies to reduce risk of admission, in line with the new service model (NHS England, 2015b). Goh and Walsh (2019) argue that evidence based clinical decision support tailored for the care of patients at risk of admission, specifically for community practitioners, can help ensure that care is carried out in the right place. Analysis of the free-text comments left by clinicians gave further insight into how the DSD RAG rating support tool could be improved. Concerns were raised in relation to physical health problems, social issues and forensic issues increasing the RAG rating despite views that the risk of admission may not be elevated in relation to these areas. These findings highlight the difficulty in assessing the risk of admission, mirrored by the inconsistency in "risk factors" highlighted within previous literature (Cowley *et al.*, 2005; Modi *et al.*, 2015; Raitasuo *et al.*, 1999). A person's risk of admission to hospital is unique and independent to their circumstances; this highlights the important role that the clinician plays in completing the DSD RAG rating support tool, considering a person's individual risk. Additionally, potential duplication in recording may lead to unwarranted risk escalation.

Practicality and research implications

Social issues such as housing were reported by clinicians within the study to increase the RAG rating, supporting previous literature (Raitasuo *et al.*, 1999; Cowley *et al.*, 2005. The small sample size of clinicians who left comments (38 per cent of responders), influences the extent to which content analysis reveals an accurate reflection of the clinician perspective. Further research should aim to collect more qualitative data from clinicians; implementing methodologies such as focus groups and semi-structured interviews. The adoption of a more detailed qualitative research study may be useful in uncovering some of the difficulties around assessing risk of admission for adults with an intellectual disability.

Furthermore, comments within the free-text data highlighted issues with the practical recording of information. Duplication in recording or "double scoring" emerged as a factor that increases the RAG rating due question overlap, for example "has the person been recently discharged from long stay in hospital?" and "any significant life events?". Given these findings, the tool would be more useful for clinicians if they were able to stop the item being scored by stated the risk had been identified elsewhere. This will enable clinicians to develop optimal resource utilisation and internal organisation by focusing more attention on the need of the service user, due to a more accurate recording of the "presenting issue"; enabling teams to work together to provide the right

support at the right time, this may be through inclusion of intensive support teams or increasing packages of care (NHS England, 2017). A team approach to determining the level of risk may ensure that all clinicians feel supported and confident with the decisions that they make. The DSD RAG rating support tool may be used to evidence recommendations advised in the CTR guidance document (NHS England, 2015c). The findings support further conversations between commissioners around the utility of the tool for child services, who may require risk of admission registers for people within residential schools (Cameron, 2017). Additional research is at present exploring the inter-rater reliability of the tool following face-to-face training with child and adult ID teams across the North West and the development of on-line training. Data are being collected from the tool to develop an insight into the number of red ratings across teams and how admissions have been avoided.

Limitations and future research

Due to the small sample size, further research should consider higher numbers of participation across NHS Trusts to add reliability to the present findings. The design of semi-structured questions may also have encouraged more qualitative data. Additionally, the present study neglected to collect demographic information around clinical experience and information around participant discipline which may have added more insightful conclusions about the participant impact upon findings.

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Further reading

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Appendix 1. Questionnaire distributed to clinicians

1. On a scale from 1 (being very difficult) to 5 (being very easy), please rate the ease of completion of the DSD

1	2	3	4	5
(Being very difficult)				(Being very easy)

2. On a scale from 1 (not at all) to 5 (very much), please rate how well you feel the DSD tool ratings reflect the needs of admission/risk presented by the service user

1	2	3	4	5
(Not at all)				(Very much)

3. On a scale from 1 (not at all) to 5 (extremely useful), please rate the utility of the DSD in helping the person you work with

1	2	3	4	5
(Not at all)				(Extremely Useful)

4. On a scale from 1 (not at all) to 5 (very much so), please rate the extent to which would recommend the DSD tool to other Trusts that don't currently use it?

1	2	3	4	5
(Not at all)				(Very much so)

5. Please add here any further feedback or comments you have about how the DSD tool could be improved

Appendix 2. Dynamic Support Database Adult- Risk rating tool

Question	Options	Possible Score	Risk score	Details/ comments
Type of Accommodation	Hospital			
	Living independently			
	Living with parents/carers			
	Nursing home			
	Residential accommodation			
	Supported living			
	Other			
Name of current provider				
Deprivation of Liberty (DOLS)	Yes			
	No			
Court of Protection	Yes			
	No			
Any significant life events if so please specify details	Yes	2		
	No	0		
Does the person have an unstable or untreated mental illness	Yes	3		
	No	0		
Does the person have an unstable or untreated physical illness	Yes	2		
	No	0		
Has the person had previous admissions	Yes	1		
	No	0		
Date of previous admissions				
Does the person present significant behavioural problems	Yes	3		
	No	0		
Is the person being supported in an unstable environment or by changing staff team	Yes	3		
	No	0		
Is the person previously known to CLDT?	Yes			
	No			
Is the person in contact with the criminal justice system?	Yes	2		
	No	0		
Has the person presented in crisis as Accident and Emergency?	Yes	2		
	No	0		
Does the person have family/carers/advocates?	Yes			
	No			

Does the person have a history of Drug or Alcohol misuse?	Alcohol	2		
	Drugs	2		
	Both	2		
	Neither	0		
Was the person's transition from children's services effective?	No	1		
	Yes	0		
	Not applicable	0		
Is the person placed in specialist 52 week residential school?	Yes	1		
	No	0		
Has the person been recently discharged from long stay in hospital?	Yes	2		
	No	0		
Total		0–4 = Green		
		5–7 = Amber		
		8+ = Red		

Blue Light

If admission cannot be avoided where will admission take place?		If other please specify name and address	
MDT Meeting Date			
Avoidance Admission Meeting Date			
Community Care and Treatment Review Date			
Revised RAG Rating			
Post Admission Care and Treatment Review Date		Admission Date	
Planned Discharge Date		Actual Discharge Date	

Completed by

Completed by (Clinician)	
Date Completed	

Corresponding author

Trixie Mottershead can be contacted at: trixie.mottershead@nhs.net

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