

Reducing Restrictive Practice through data informed Positive Behaviour Support

Darren Bowring, Head of Positive Behaviour Support Team, States of Jersey, and PBS Consultant, Centre for the Advancement of PBS

Centre for the Advancement of PBS Practice Paper 1 in a series of 12 practice papers commissioned by the CAPBS to provide a reference point and discussion tool for teams wishing to develop their positive behaviour practice.

“Data informed practice is a key factor in reducing reliance on restrictive practices” (RCN, 2013).

Introduction

Data is a vital component of a Positive Behaviour Support (PBS) approach. At the heart of PBS is the science of behaviour change and science requires observable and measurable data. Data are distinct pieces of information that can be used for the purposes of analysis, to inform interventions and objectively monitor progress. This paper will discuss the monitoring of restrictive practices, the PBS data model as well as the ethics and legalities of collecting data on people with learning disabilities. This paper also aims to provide some examples of the types of data some organisations, PBS Teams and PBS Practitioners collate. Obviously a short paper cannot provide comprehensive and exhaustive information so readers are urged to follow up their interest with further reading or training on this issue.

Monitoring Restrictive Practices

Restrictive practices are any type of support or practice that limits the rights or freedom of movement of a person with disability. It is a key aim of BILD to reduce the use of restrictive practices in services for people with learning disabilities. In recent years there have been numerous publications which have highlighted the excessive use of restrictive practices for people with learning disabilities (e.g. CBF, 2012). The Care Quality Commission (2012. 44) discovered “a lack of monitoring of the usage of restraint leading to increased risk of restraint being used inappropriately.”

It is vital organisations collect, analyse and monitor data on restrictive practice in an effort to ensure its appropriate use and ultimately reduce its application.

PBS data

PBS is an application of the science of Applied Behaviour Analysis (ABA). It is important to collect data for a number of reasons (Miltenberger, 2004). Firstly, data is required to determine the relevance of PBS interventions. Intervention should only occur following detailed consideration of the issue and whether it warrants any intervention. Secondly, data is required to analyse the function or purpose of any problem behaviour objectively which helps select the most appropriate, person centred intervention. Thirdly, data is required to measure changes in behaviour and study the impact and effectiveness of interventions. By collecting data practitioners can “maintain direct and continuous contact with the behaviour under investigation” (Cooper, Heron & Heward, 2007. 127). Fourthly, data is required to measure the acquisition of new skills and to assess whether these last and are being used in different settings (they have generalised). Fifthly, data is importantly required to measure lifestyle changes and the achievement of quality of life outcomes.

Ethical data collection

Any data collected should follow organisational and national protocols (such as Data Protection Act 1998). People with learning disabilities have historically been over monitored and their behaviour excessively documented which may have contributed to restrictive responses. Data should also be gained with proper consent procedures being followed (as per Mental Capacity Act 2005 guidance). Information collected about people should be “used fairly and lawfully; used for limited, specifically stated purposes; used in a way that is adequate, relevant and not excessive; accurate; kept for no longer than is absolutely necessary; handled according to people’s data protection rights; kept safe and secure; not transferred outside the UK without adequate protection” (www.gov.uk/data-protection/the-data-protection-act). There is a useful summary on processing, sharing and storing adult data on the Social Care Institute for Excellence website (www.scie.org.uk/care-act-2014/safeguarding-adults/sharing-information/what-does-the-law-say.asp).

The process of measurement should also fit into every day environments. The process of recording data should not distract professionals or carers from the support they are giving the individual with a learning disability. Data collection systems should be easy to use and provide meaningful information.

Collecting data at the organisational level

The following types of data are examples of the types of information some organisations, service or education providers collate. A large number are suggested by the Department of Health (2014a, 2014b):

Table appears on next page.

Data title	Description of data	Present in my organisation?
Data on the use of Restrictive Practices (RP)	This should include and distinguish between both planned and unplanned RP's and include detail on reasons required; primary and secondary strategies that failed; type of RP; duration, intensity; and whether any injuries were sustained. It should also document use of PRN (as required) medication, seclusion and segregation. Data should be flagged on the use of RP with service users without current Positive Behaviour Support Plans to ensure they are put in place.	
Incident reports	All incidents that feature a defined level of challenging behaviour or near misses should be	
Post Incident reviews and	Post incident analysis should be documented.	
Complaints and Concerns	Data on safeguarding issues, the use of the whistle blowing policy, staff grievance records	
Training Needs Analysis	Organisations should have accurate records of staff training including PBS, conflict resolution and BILD accredited physical intervention	
Positive Behaviour Support Plans (PBSP's)	Data on the number of service users with PBSP's and the number that include RP's.	
RP Reduction Plans	Data on the number of service users with a RP reduction plan and data on the effectiveness of	
Service user wellbeing	Data on service user wellbeing indicators – health checks, use of medication (including anti-psychotics), Active Support data (http://arcuk.org.uk/publications/files/2011/03/Active-Support-Handbook.pdf) , Quality of Life	
Staff data	Data on staff training, supervision and Performance Review Appraisals' (PRA's);	
Risk assessments	All risk assessments relevant to service users	
Periodic Service Reviews	Some services agree collective standards and	
Local demographics	The RCP / BPS / RCSALT (2007) recommend organisations regularly collect research data on the demographics of the local population to ensure accurate service planning.	

There is an increased use of electronic systems to manage personal data by organisations. (www.gov.uk/government/news/jeremy-hunt-challenges-nhs-to-go-paperless-by-2018--2). There are a number of systems available that can document a number of the above data suggestions, produce summary statistics and forward data to the relevant professionals (Senior managers, governance, PBS Team, etc.) once submitted. These systems can trigger effective reviews and lead to informed updates to risk assessments, behaviour support plans and staff training requirements (e.g. Datix www.datix.co.uk/). They can identify trends for service users, environments and staff.

Collecting data at the PBS Service level

It is important PBS teams collect and analyse data to determine the effectiveness of their services. Baseline data (pre any intervention) should be collected to compare to performance at later dates.

The following types of data are collated by PBS Teams:

Data title	Description of data	<i>Present in my organisation</i>
Service Statistical Data	PBS Teams collate data on referral statistics including numbers of referrals, names and professions of referrers, types of behaviour referred, and the environments where assessment and input is required. This should be produced as an annual report to identify service trends. A summary of service progress, in case work and training, can also be described in this report.	
Behaviour Rating Scales	PBS Teams should provide data on behavioural improvement in case work through pre-post-test measures. The use of behaviour rating scales such as the Behaviour Problems Inventory – Short Form for use with Intellectual Disabilities (BPI-S) (Rojahn, et al, 2012) may be useful.	
Graphical demonstration of behavioural progress	PBS Teams should present case specific behavioural data in graphical form to demonstrate progress. This makes it easy for others (including organisational leads) to interpret and understand data.	
Quality of Life Measures	Health related quality of life improvements can be measured by using tools such as the EQ-5D (www.euroqol.org) as a pre-post-test measure. There are other measures available to measure other quality of life changes such as WHOQOL-DIS (Power, 2011), MANS-LD (Skirrow & Perry, 2009), PWI-ID (Cummins & Lau, 2005), PEDS-QOL (www.pedsql.org) QUOLIS (Ouellette-Kuntz, 1990), and Guernsey Community Participation and Leisure Assessment (GCPLA) (Baker, 2000).	

Data title	Description of data	<i>Present in my organisation</i>
Use of Restrictive Practice	Some PBS Teams provide summary data on changes to the use of RP's pre and post	
Training data	PBS teams should collate data on staff training delivered and ensure refreshers are annually administered. Staff should complete feedback	
Customer satisfaction	PBS Teams should actively seek and document feedback from service users, their carers / family / advocates and referrers about their satisfaction with PBS input. Views regarding progress to reduce challenging behaviour and RP's, and improve quality of life and personal skills should also be sought.	

The BPI-S (Rojahn, et al, 2012) is a rating scale which details 30 behaviours across three sections – self-injurious behaviour (SIB), aggressive destructive behaviour (AD) and stereotypy (ST). All three sections have frequency scales and SIB and AD feature severity scales. Referrers can rate behaviours at point of referral and the BPI-S produces subscale and total scores. This type of rating scale helps identify behaviours that need to be modified or replaced and evaluate which ones to focus intervention on. The BPI-S can be completed post intervention to assess statistical improvement on behaviour targets. There are other rating scales available too. Further work is required by researchers to develop an ideal (pre-post-test) quality of life measure that can be used universally, is easy to complete, time sensitive and psychometrically evaluated (the tool works well). Having multiple tools that can be completed by services users, their advocates and practitioners is required. Townsend-White, et al (2012), summarise research on quality of life tools available for individuals with learning disabilities and challenging behaviour.

Collecting data at the case work level

PBS Practitioners should aim to measure changes in challenging behaviour, the acquisition of new skills and lifestyle changes.

A functional behaviour assessment (FBA) is a way of assessing what purpose an individual's behaviour serves. This can be completed in different ways each time. The type of data collected varies depending upon the individual's problem behaviour, skills and quality of life. To conduct a FBA effectively it is usually necessary to combine indirect assessment (information provided by others) with a direct observational approach.

Prior to data collection the behaviour of concern requires a precise definition so multiple observers can record it. It must be specified in observable and measurable terms. A good test is to read out the definition and see if colleagues can act out the behaviour accurately from the definition.

The following types of data are collated by PBS practitioners:

Data title	Description of data	Present in my organisation
Indirect Measures of Challenging Behaviour	<ul style="list-style-type: none"> I. There are a number of variations of the O’Neil, et al (1997), Functional Assessment Interview form available II. Behaviour rating scales with informants such as BPI-S III. Functional assessment rating scales (questionnaires) with informants such as Motivational Assessment Scale (MAS) (Durand & Crimmins, 1992) and Questions About Behaviour Function (QABF) (Paclawskyj et al, 2000) IV. Review of daily notes / logs V. Review of incident reports VI. Permanent products VII. Review of other assessment reports 	
Direct Measures of Challenging Behaviour	<ul style="list-style-type: none"> I. Continuous recording – during an observation period all instances of challenging behaviour are recorded. This can provide data on frequency (rate), duration, intensity and latency. II. Scatter Plots III. Interval Recording - Momentary Time Sampling (MTS), Whole Interval Recording (WIR), Partial Interval Recording (PIR). IV. ABC Recordings V. Episodic Severity Scale 	
Quality of Life data	See previous data suggestions	
Skills data	<ul style="list-style-type: none"> I. Skills Matrix (a tool to assess someone’s skills and monitor acquisition of new ones) II. Communication (such as VB-MAPP – a tool for assessing language acquisition). III. Portfolio Assessment (e.g. evidence of school work done or employment achievements) IV. Task Analysis Records (how a task is completed efficiently) V. Peer interaction Records (a record of data on interactions with others) VI. Play engagement Records (a record of play data) VII. Communication skills record (a record of progress in developing appropriate communication skills) 	
Active Support data	Such as participation record (data on number and types of activities someone has completed).	
Generalisation	Data to suggest the skills are durable across settings or contexts.	

Indirect data collated through interviews, checklists, and rating scales are time efficient. The functional assessment Interview (O'Neil, et al, 1997) can be useful to gather background data on the service user, the support they have, their behaviour, their skills and quality of life issues. Reviewing reports provides information that can uncover important information about possible setting events (conditions that increase the chance of a behaviour occurring), social skills, issues related to quality of life, and academic strengths and targets. Permanent product data, such as amount of homework completed or reward tokens earned, can be collected without PBS practitioners present and indicate whether a target behaviour is being performed. However data gathered can be subjective so needs treating with caution in terms of influencing a PBSP.

Direct measures are usually more accurate where observers have been trained to record incidents and capture them immediately. Direct measures involve the observation of the service user continuously through an agreed observation period. Practitioners can record a number of different dimensions of behaviour such as frequency, duration, intensity and latency. Often it is useful to capture more than one dimension.

Frequency is simply the number of times behaviour occurs within an observation period. This is most useful if behaviour is easily counted, not especially high rate, has a clear beginning and end and does not occur for a long duration. If the length of practitioner observation periods vary then it can be converted to rate which is defined as the number of occurrences of behaviour divided by the length of the observation period. Shouting out in class could be effectively measured by frequency / rate data.

Duration is the total amount of time a behaviour occurs from start to finish measured using a timer. If the primary concern is how long the service user is engaged in the behaviour then this can be useful data. The behaviour needs to have a clear start and end, not high frequency and the behaviour does not start and stop frequently. This may be helpful to assess some stereotypical behaviours.

Intensity is the amount of force involved in a behaviour and is usually measured by an agreed scale (such as in the BPI-S). This can be useful for behaviours such as self-injury and aggression.

Latency is the time from a stimulus event to the onset of a behaviour which is measured using a timer. This should only be used if the stimulus and behaviour have clear beginning and end. This can be useful to collect data on behaviours such as time taken to sit at desk in class once prompted.

Scatter plots are a form of interval recording which documents the time in a day problem behaviour occurs. Using a scatter plot practitioners can identify times for more specific direct observations or when to focus interventions.

Interval recording is useful to collect data on high frequency problem behaviours such as off task behaviour. Momentary Time Sampling (MTS) involves an observer looking up and noting whether a behaviour occurs at specified time periods during an observation (such as every 20 seconds during a 10 minute observation). This requires a timing device and a data recording method and produces an estimate of behaviour expressed as a percentage of intervals in which

behaviour occurred. MTS is useful as the observer does not have to be watching the service user continuously (teachers can collect data whilst teaching) and is ideal for more frequent, longer duration behaviours, for group recording or capturing data on more than one behaviour. MTS can underestimate behaviour if it occurs between observations so any data is an estimate.

Partial Interval recording (PIR) involves recording if a behaviour occurs within an interval of time. It only requires noting once per interval and hence is low effort. Whole interval recording (WIR) involves recording if a behaviour occurs for the entire duration of the interval. PIR overestimates behaviour and is useful where the aim is to decrease behaviour such as talking in class. WIR underestimates behaviour and is useful where the aim is to increase behaviour such as being on task.

ABC records allow practitioners to document environmental variables related to problem behaviour. Practitioner's objectively record details of the antecedents, behaviour and consequences during an incident. These can be useful for low frequency behaviours as part of functional assessments.

The Episodic Severity Scale is a useful measure to collate data on more than one dimension. This scale records every incident (frequency), the start and end time of a behaviour (duration) and practitioners rate the severity (intensity) of the behaviour out of ten, using a clearly described measurement tool. This can usefully be paired up with an ABC record. There are a number of useful gadgets to aid data collection and several useful apps (such as Behaviour Tracker Pro).

Good data is required to analyse the function of problem behaviour and contribute to the development of an effective PBS Plan. Data then helps monitor the effectiveness of the plan. "Data is also important to determine what factors are effective in reducing or eliminating the use of restrictive practices" (Webber, et al, 2012).

Summary

This paper has discussed the reasons why data collection is vital to monitor the use of, and application of, restrictive practices. PBS is an approach which already utilises data to inform practice. A variety of ways in which organisations, PBS Teams and PBS practitioners collect data has been discussed. The reader is encouraged to consider the types of data they collect and additional tools they could utilise. It has been emphasised that any data should be ethically and lawfully collected. Organisations require a documented process regarding how data is shared between the three domains detailed. Data collated in each of the three domains should inform the other. Organisations also need to identify people to co-ordinate the process.

Effective data flow should enable consistent organisation wide evaluation and decision making with the service user at the centre. The ultimate aim is the documented reduction of restrictive practice in service settings for people with learning disabilities.

References

Baker, P. A. (2000). Measurement of community participation and use of leisure by service users with intellectual disabilities: The Guernsey community participation and leisure assessment (GCPLA). *Journal of Applied Research in Intellectual Disabilities*, 13, 169-195.

Care Quality Commission (2012). Learning Disability Services Inspection Programme, www.cqc.org.uk/sites/default/files/documents/cqc_ld_review_national_overview.pdf

Challenging Behaviour Foundation (CBF) (2012). Out of Sight (www.challengingbehaviour.org.uk).

Cooper, J.O, Heron, T.E, Heward, W.L. *Applied Behavior Analysis* (2007) (2nd ed.) Upper Saddle River, NJ: Pearson.

Cummins, R.A. & Lau, A.L.D. (2005). *Personal Wellbeing Index (English) – Intellectual Disability* (3rd Edition). Deakin University.

Department of Health, Skills for Health, Skills for Care (2014a). *A Positive and Proactive Workforce*. www.gov.uk

Department of Health (2014b). *Positive and Proactive Care: reducing the need for restrictive interventions*. www.gov.uk

Durand, M. & Crimmins, D. B. (1992). *The motivation assessment scale administration guide*. Topeka, KS: Monaco & Associates.

Miltenberger, R.G. (2004). *Behavior Modification. Principles and Procedures*. Thomson Wadsworth.

Ouellette-Kuntz H. (1990). A pilot study in the use of the Quality of Life Interview Schedule. *Social Indicators Research*, 23, 283–98.

O'Neill, R. E., Horner, R. H., Albin, R. W., Sprague, J. R., Storey, K., & Newton, J. S. (1997). *Functional Assessment and Program Development for Problem Behavior*. Pacific Grove, CA: Brooks/Cole Publishing.

Paclawskyj, T. R., Matson, J. L., Rush, K. S., Smalls, Y., & Vollmer, T. R. (2000). Questions About Behavioral Function (QABF): A behavioral checklist for functional assessment of aberrant behavior. *Research in Developmental Disabilities*, 21(3), 223-229.

Power, M. (2011). *WHOQOL-DISABILITIES Module Manual*. WHO.

RCN (2013). *Draft guidance on the minimization of and alternatives to restrictive practices in health, adult social care, and special schools*. www.rcn.org.uk

Rojahn J., Rowe E.W., Sharber A.C., Hastings R., Matson J.L., Didden R., Kroes D.B.H., Dumont E.L.M. (2012). The Behavior Problems Inventory-Short Form for individuals with intellectual disabilities: Part I: development and provisional clinical reference data. *Journal of Intellectual Disability Research*, 56, 527-545.

Royal College of Psychiatrists, British Psychological Society, Royal College of Speech and Language Therapists – College Report CR144. (2007). *Challenging Behaviour: A Unified*

Approach. Clinical and service guidelines for supporting people with learning disabilities who are at risk of receiving abusive or restrictive practices. London: Royal College of Psychiatrists.

Skirrow, P. & Perry, E. (2009). The Maslow Assessment of Needs Scales (MANS). Mersey Care NHS Trust.

Townsend-White, C., Pham, A.N.T., Vassos, M.V. (2012). Review: A systematic review of quality of life measures for people with intellectual disabilities and challenging behaviours. *Journal of Intellectual Disability Research*, Vol. 56 (3), 270-284.

Webber, L.S., Richardson, B., Lambrick, F. & Fester, T. (2012). The impact of the quality of behavior support plans on the use of restraint and seclusion in disability services. *International Journal of Positive Behaviour Support*, 2 (2), 3-11.

<http://arcuk.org.uk/publications/files/2011/03/Active-Support-Handbook.pdf>

www.datix.co.uk/

www.euroqol.org

www.gov.uk/data-protection/the-data-protection-act

www.gov.uk/government/news/jeremy-hunt-challenges-nhs-to-go-paperless-by-2018--2

www.pedsqol.org

www.scie.org.uk/care-act-2014/safeguarding-adults/sharing-information/what-does-the-law-say.asp

May 2015

Centre for the Advancement of PBS

Birmingham Research Park
97 Vincent Drive
Edgbaston
Birmingham B15 2SQ

0121 415 6970
capbs@bild.org.uk

www.bild.org.uk/capbs