The use of Positive Behaviour Support Plans in mental health inpatient care: A mixed methods study

Running title: PBSPs in mental healthcare

Louise. L Clark[1* †], Fiorinta Lekkai[2], Anthony Murphy[3], Luisa Perrino[2], Savin Bapir-Tardy[2] and Elizabeth Barley[2, 4]

[1]Florence Nightingale Faculty of Nursing, Midwifery & Palliative Care King's College London, James Clerk Maxwell Building, 57 Waterloo Road, London, SE1 8WA

[2]College of Nursing, Midwifery and Healthcare, University of West London, Boston Manor Road, Brentford, TW8 9GA

[3]Psychology, Middlesex University, The Burroughs, Hendon, NW4 4BT

[4]School of Health Sciences, University of Surrey, Guildford, Surrey, GU2 7YG

**Corresponding author:* Louise L Clark, Tel.: 020 7848 3060, email: louise.clark@kcl.ac.uk

ORCID: 0000-0001-5786-0907

Acknowledgements: This study was funded by the General Nursing Council Trust

Ethical Statement: Favourable ethical review of the study was provided by the Proportionate Review Sub-committee of the South West - Cornwall and Plymouth Research Ethics Committee (REC reference number: 17/SW/0074). This work conforms to the principles of the Declaration of Helsinki.

Footnote: Professor Barley was awarded the grant (with Louise Clark) and conducted the work while at the University of West London[2]. The writing up and analysis was conducted after a move to the University of Surrey[4]

PROFESSOR ELIZABETH BARLEY (Orcid ID : 0000-0001-9955-0384)

Article type : Original Article

The use of Positive Behaviour Support Plans in mental health inpatient care: A mixed methods study

Accessible Summary

What is known on the subject

- There is a drive to use positive and proactive approaches to mental healthcare to reduce the use of restrictive practices such as seclusion and restraint.
- Positive behaviour support plans have been used successfully to do this in learning disability services and, in England, it is now a regulatory requirement that anyone with challenging behaviour should have an individualised behaviour support plan.
- However, positive behaviour support plans specifically have not been evaluated as part of routine mental healthcare and mental health nurses' and relatives' attitudes towards them are unknown.

What the paper adds to existing knowledge

- This evaluation of Positive Behaviour Support Plans in routine mental health inpatient care found that they had not been widely implemented or completed as intended.
- Barriers to the use of the plans included confusion among nurses and relatives around the principles of positive behaviour support, including how, when and for whom the plans should be used, difficulties in being able to describe the function of a patient's behaviour and lack of

engagement with relatives and patients.

- Nevertheless, nurses and relatives valued the plans, in particular for their potential to facilitate holistic care.

What are the implications for practice

- To use the plans successfully, mental health nurses will need training to understand fully the rationale behind the positive behaviour support approach and will need to engage more with relatives and patients.
- Commitment to the approach from the whole care team and organisation will be needed to implement the plans consistently for all patients.

Abstract

Introduction: An international drive is to minimise restrictive practices in mental healthcare. Positive behaviour support Plans (PBSPs) help staff prevent behaviour which would require restrictive intervention. Originating in learning disability services, data within mental healthcare are limited.

Aims: To evaluate PBSPs within a mental health-inpatient service; understand mental health nurses' and relatives' attitudes to them and understand the barriers and facilitators for their use in routine mental healthcare.

Method: Mixed methods - quality-ratings and interviews with relatives and nurses.

Results: PBSPs were poorly implemented. Relatives and nurses valued the potential of PBSPs to facilitate holistic care, though no relative had contributed to one and not every eligible patient had one. Barriers to their use included confusion around positive behaviour support, including how, when and for whom PBSPs should be used, and difficulties describing the function of a behaviour.

Discussion: The potential of PBSPs to improve mental healthcare is recognised. However, there are barriers to their use which should be addressed to ensure

that PBSPs have been properly implemented before their impact on patient-care can be assessed.

Implications for practice: Mental health professionals implementing PBSPs should engage with relatives and patients, gain organizational commitment and ensure that those involved understand fully the positive behaviour support approach.

Key words: positive behaviour support, restrictive practices, violence, aggression, mental health nursing

Relevance Statement

This paper addresses a key priority for mental health nurses internationally: the need to minimize the use of restrictive practices. Positive behaviour support plans have been used to facilitate this in learning disability services. This paper evaluates their use in inpatient mental health settings from the point of view of nurses and carers. The plans were viewed positively, though they were poorly implemented. This paper provides information for mental health nurses about barriers and facilitators to the use of the plans. This information will help mental health nurses to understand what is needed to implement the plans and to evaluate their impact on patient care.

Introduction

Restrictive interventions, such as restraint and seclusion, are used in mental health inpatient units to manage patients who are violent or aggressive. Other restrictive practices, such as ward rules, limit setting or restrictions regarding leave are also employed routinely (Xyrichis et al., 2018). However due to findings of harm associated with such practices (Hammer et al., 2011; Theodoridou et al., 2012), there is an international drive to minimise their use (LeBel 2014). Mental health nurses have been encouraged instead to think and act proactively, that is to act to prevent issues arising which may require the use of restrictive practices (Cockerton et al., 2015). However, current care planning tends to be reactive and has been criticized as 'overly focused on managing problems' (Barratt et al., 2017), bureaucratic and damaging to therapeutic engagement (Simpson et al., 2016) and lacking involvement from service users and their families (Doody et al., 2017; Simpson et al 2016; Grundy et al., 2015).

One existing, proactive and preventive behaviour management system is 'Positive behaviour support' (PBS). PBS is a values-led, multi-component framework which aims to improve individuals' quality of life by incorporating a person-centred approach and compiling personalised interventions through comprehensive PBS plans (PBSPs) (LaVigna & Willis 2012, Allen et al., 2005). PBSPs are designed to promote understanding of what precipitates and maintains an individual's challenging behaviour (Clark et al., 2017a) with the aim of prevention of aggression andviolence. The UK Department of Health's guidance (2014) states that services that support people who present with challenging behaviours should use 'recovery-based approaches and delivery of care in accordance with the principles of positive behavioural support'. The Care Quality Commission (the independent regulator for health and social care in England) requires evidence of "care records to confirm people with behaviour that challenges have had a recent holistic assessment and an individualised behaviour support plan (or equivalent) which is reviewed regularly (CQC 2017).

PBSPs have been applied mostly in learning disability settings, where a large

cluster randomised controlled trial (RCT) of PBSP's (n=23 community intellectual disability services) (Hassiotis et al., 2018a) found no benefit for staff training in positive behaviour support *versus* treatment as usual. However, this may be because the training was too burdensome (three 2-day face to face workshops) and covered too wide a range of interventions to be effective. The authors identified implementation issues which suggests that this may have been the case. Nevertheless, a positive effect has been found in relation to mental healthcare: a small RCT (n=39 patients) of PBSPs (Davies et al., 2019) conducted in a forensic psychiatric intensive care unit found significant reductions in aggression frequency and severity and in the frequency of other challenging behaviours with some benefits retained at 12 months. However, in that study (Davies et al., 2019), PBSPs were tested under trial conditions which included significant input from psychology and occupational therapy staff from the outset and extensive, targeted staff training, so conditions for the use of the PBSPs were optimal.

It is not known whether PBSPs are effective when used as part of routine mental healthcare, i.e. as a supplement to existing care plans, with limited resources for training and where the extent of collaboration with the multidisciplinary team may vary. Furthermore, it is also unknown how PBSPs, which are informed by a potentially novel model of care (PBS), might be perceived by mental health nurses who are key in care planning and delivering physical interventions (Stubbs et al., 2009). The importance of attitudes in managing challenging situations and in reducing restrictive interventions such as restraint has been acknowledged (NHS Protect., 2014; RCN., 2014) and nurses' attitudes have been found to impact on the delivery of a range of interventions (Bee et al., 2015; Farrelly et al., 2016; Price et al., 2018). Understanding mental health nurses' attitudes to the use of PBSPs will therefore be important in determining if and how they can be implemented in practice. Finally, the importance of relatives' involvement in care planning has been noted (Grundy et al., 2015) but it is unknown whether PBSPs will facilitate this as is intended.

The current feasibility study was therefore conducted to evaluate the implementation of PBSPs within a mental health inpatient service. The aims were to understand mental health nurses' and relatives' attitudes to and use of PBSPs and to understand the barriers and facilitators for using them in routine mental healthcare.

Methods

Setting: The study was conducted within a large mental health NHS inpatient hospital in London, UK. Three study areas were selected in order to include patients with varied diagnoses, illness severity and care needs: a male psychiatric intensive care unit (PICU), a female acute ward and a mixed gender older persons' ward (total 50 beds). Favourable ethical review of the study was provided by the Proportionate Review Sub-committee of the South West - Cornwall and Plymouth Research Ethics Committee (REC reference number: 17/SW/0074).

Design: Mixed-methods were employed including quality of completion ratings of the PBSPs and interviews of nurses and relatives of patients with a PBSP.

Positive Behaviour Support Plans: The PBSP, which adopts a bio-psycho-pharmaco-social framework (Clark and Clarke, 2014; Clark et al., 2017), was designed by a Nurse Consultant in Acute and Restrictive Practice (author LLC). The biological domain is always analysed first, through full physical examination, in order to prevent diagnostic overshadowing. The psychological domain is considered next, including diagnosis, family history, stressful life event and engagement with mental health services and therapies. The pharmacological domain is then explored, this includes current medication and side effects, use of street drugs, over the counter medication, smoking and alcohol habits. Social factors, including family dynamics, relationships, sexuality, religiosity, spirituality and support networks are identified in addition to housing, education and finance issues.

Challenging behaviours are recorded on an antecedent-behaviour-consequence

(ABC) chart and triggers and risk factors identified. An initial management plan is formulated which is regularly reviewed and amended as information is gathered. The PBSP is intended to be formulated with the patient's cooperation and with the input of their nearest relatives (with patient permission) where possible. The PBSP and an implementation manual is available from the author LLC. In the three months prior to this study, 83 multidisciplinary staff members from across the NHS Trust attended a six-hour workshop led by LLC designed to change attitudes and knowledge of restrictive practices and to introduce the PBSPs. However, as the study started, the Trust withdrew funding for all training due to staffing shortages and no more workshops could be delivered. Instead, LLC provided ward based training on how to use the PBSPs on an as needed basis, this was designed to ensure that most staff had received training in the important aspects of the intervention such as the underlying theory and how to complete the PBSPs.

Participants and recruitment: The nearest relatives of patients with a PBSP and nurses working within the study areas were interviewed. The records of all patients admitted to these areas during a six-month study period in 2018 were examined in order to identify who had a PBSP. Ward staff then provided a participant information sheet (PIS) to all eligible nearest relatives, and obtained the contact details of those willing to participate. The research assistant (FL) contacted these relatives and obtained written, informed consent prior to conducting the interview and gathering basic demographic data. All nurses working within the study areas during the study period were provided with a PIS by FL and asked to contact her if they wished to participate.

Data Collection: The number of PBSPs in use and of incidences of seclusion, violence or aggression reported for patients with a PBSP over the six-month study period were extracted from patient records. The quality of completion of each PBSP was rated using a standardised tool developed for this study informed by related published instruments (Sugai et al., 2001; Browning-Wright et al., 2007). Items (n = 32) designed to assess whether each element of the PBSP had been

completed as intended were scored as *0=Not completed (i.e. nothing recorded), 1= Partially completed (i.e. some information had been recorded but this was not complete, for example challenging behaviour was described but patient's mental and physical health presentation was not recorded), 2= Fully completed (i.e. all expected information was recorded).* A total quality score for each PBSP was calculated by summing all scores for all items of each PBSP (i.e. 0 = no item fully completed to 64 = all items fully completed). Inter-rater reliability was tested by a research nurse and FL independently rating a 10% sample of the completed forms and found to be high (Cronbach's alpha: 0.71 to 0.75).

Interviews were conducted face to face by FL and were informed by a topic guide. The topic guide for relatives explored their understanding of restrictive practice and their perceptions of the PBSPs (an example PBSP was presented). In addition, the topic guide for nurses explored their experience of using PBSPs. Topic guides were revised iteratively, for instance, during the first 4 interviews, the researcher noted that the use of agency staff was cited as a barrier to using PBSPs, so this was addressed during subsequent interviews. Interviews were digitally recorded and transcribed verbatim. However, two relatives declined to be recorded, so written notes were taken.

Data analysis: Descriptive statistics for the number of PBSPs in use, the quality of completion ratings and the number of incidences of the use of seclusion and of violence or aggression were prepared using SPSS statistics software (IBM SPSS, version 24, 2016), a non-linear regression analysis was conducted to test the relationship between the number of incidents involving each patient and the quality rating score of their PBSPs.

Interview data from each sample (relatives and nurses) were analysed separately using thematic analysis (Braun and Clarke, 2006). Data analysis and collection were iterative. Data were coded and themed by two authors who independently read the transcripts to identify themes. The two authors then agreed themes, which were further confirmed through discussion within the whole team which included a service user advisor.

A 'triangulation protocol' (Ashour, 2018) was then used to combine and compare all data sources. Three steps were involved: 1) 'sorting' of data to identify barriers and facilitators to the implementation of the PBSPs; 2) 'convergence coding' to identify similarities and differences between the two interview datasets; 3) cross-checking the consistency of data items from the interviews and the PBSP quality of completion ratings. At each stage, data were independently coded by at least two researchers and themes agreed within the multi-disciplinary team.

Results

During the six-month study period, 30 PBSPs were in use; nearly all were on the male PICU (*n*=29) and only one on the female acute ward; none had been completed on the older persons' ward. Quality of completion ratings indicated that most of the items had not been completed as intended (highest quality rating = 42 for 1 PBSP, lowest = 0 for 2 PBSPs; mean = 13.7; SD = 10.95). Fifteen PBSPs (50%) scored very low (< one third of the maximum score).

The 30 patients with a PBSP were involved in 23 incidents of seclusion (range 0 to 5, mean 0.77, SD 1.22); 335 'incidents' (range 0 to 27, mean 5.83, SD 7.61), including 108 incidents of aggression towards others; 5 incidents of self-harming; 47 incidents of destructive behaviour (such as property damage); and 175 other incidents where the details were not specified. There was no relationship between the number of incidents involving each patient and the quality rating score of their PBSPs ($R^2 = 0.02$, $F(2, 27) = 0.23$, $p > 0.05$).

Interview Participants: Seven relatives (i.e. relatives of seven patients) and 13 nurses agreed to be interviewed; their demographic details are shown in Table 1. Interviews lasted from 15 minutes to 1 hour. Summary themes are present with supporting quotes identified by R (relative), P (mental health nurse) and a number representing the order of interviews (e.g. R1-7, P1- 13, each participant was interviewed once only).

Relatives' Views: Two broad themes of 'understanding and awareness of

restrictive practices' and 'PBSPs as an aid to patient care' were identified.

Theme: Understanding and awareness of restrictive practices

Relatives were not familiar with the term 'restrictive practice' but were familiar with the concept and felt that, if applied rigidly, some restrictive practices could impact negatively on their loved ones.

> *"you cannot take certain thing in, like drinks and food that we bring. That's not allowed anymore. They are only allowed to go out in the garden area at certain times." [R4]*

> "*They took his glasses away when he was in seclusion ...he wouldn't recognise himself in the mirror and he would think that he is his voices and that he has died and there is someone else in his body." [R2]*

However, there was also consensus that restrictive practices are sometimes necessary for patient safety. Some relatives cited example of how they themselves, in the process of caring, had used restrictive practices to keep their relative safe physically or from getting into other harmful situations, such as building debt.

> *"I think they are just there to protect the patients… and to allow the doctors to do the work they need to do." [R5]*

> "*We try to restrict a lot of things with X. When he came out last time, all his debts were paid off…… debts upset him so we always tell him he cannot have it (money)." [R4]*

Theme: PBSPs as an aid patient care

No relative recognised the terms 'positive behaviour support plan' or 'positive behaviour support' and no participant had seen their relative's PBSP. Involvement in their relative's care whilst in hospital seemed to be restricted to attending ward rounds, rather than active participation in any form of planning

care. However, when participants were shown an example PBSP and its purpose described, perceptions were positive and a number of potential benefits to patient care were suggested.

> *"To me this sounds great. Anything that helps him to try and get deeper to why he does things." [R4]*

The perceived benefits included the potential of the PBSPs to facilitate comprehensive care and better communication. Relatives liked that the PBSPs appeared able to capture all their relative's needs, to ensure that those needs were met, and to identify who could help.

> *"you see that there are plans in place for every problem, there are people that are going to be helping." [R7].*

> "*It gives you more details, you can know better my dad, more information about how he is and behaves… maybe more for staff to know him better." [R6]*

Most relatives emphasised that they could have added to the PBSP, had they been given the chance, as they are aware of their relative's 'triggers'. The potential for PBSPs to help when patients are unable to communicate their own needs was also described.

> *"She doesn't like to be by herself and it is not always possible for somebody to be there for her but is a trigger that she shouldn't be by herself." [R1]*

> *"I like that is visual and you can see what it is that someone is uncomfortable with even if they don't speak out." [R5]*

The relatives agreed that PBSPs could improve continuity of care by ensuring consistency between themselves, hospital and community staff.

> "*If we all communicate, we are all on the same page that would help with*

consistency of care." [R5]

"When he is discharged, I would like the community team to use this and create their own plans but based on this, continue this." [R2]

However, some relatives felt that following a plan would require them to devote more time to their relative than they were able to give.

"I don't know whether I have got the time to be much of that full-time carer, to give up my job and be 24 hours there." [R7]

Nurses' views

Divergent views and understandings were expressed, though two superordinate themes of 'confusion' and 'holistic' care could be identified.

Theme: Confusion

There was consensus that it is important, for the wellbeing of patients, to reduce the use of restrictive practices and to employ alternative strategies.

"I am not really restraint friendly … I think working with patients before it gets to that stage, more communicative more therapeutic." [P9]

"I would probably say that we have to be more communicative rather than hands on, more negotiating, picking up on warning signs - the triggers - than having contact." [P9]

However, across all interviews, it was apparent that there was considerable confusion around the use and purpose of PBSPs. This appeared to stem from confusion around the concept of Positive Behaviour Support (PBS) which was a new model for the nurses. Most participants equated PBS to practices such as encouraging positive behaviour, prevention and de-escalation. None described

the full bio-psycho-pharmaco-social framework or distinguished the approach from other models.

> *"if the behaviour is positive, we encourage them to do it more. For example, if they manage their room we go and say, "well done your room looks clean, looks very tidy today and you did try to make an effort". If they washed, you just comment at the way they look "oh this looks good on you"." [P2]*

The nurses who were most positive about the PBSPs appeared to have a more in depth understanding of PBS however.

> *"They (PBSPs) are very useful, better than the old school care plan…. because you actually learn why people behave the way they do." [P4]*

Lack of understanding of PBS appeared to be related to a lack of clarity and consensus over which patients should have a PBSP. Some staff recognised that the PBSPs were designed to be used for all patients.

> *"we do for all of them. Just like [a] care plan. Every patient that comes in you have to have a care plan, so we have PBPS for every patient." [P10]*

Others considered them only for the management of violence and aggression. More than one person reported that their care decisions were influenced by whether they felt the patient was responsible for their aggressive behaviour or not. Both perceptions could lead to not using the PBSPs, for instance some felt that PBSPs were not useful for patients experiencing a psychotic episode until they had sufficient capacity to contribute, whereas others were unwilling use a PBSP with patients whom they felt were uncooperative.

> *"(we use it) if a patient is presenting aggressive or abusive, and present a risk for the other patients and staff." [P7]*

> *"if that behaviour comes from their state of mind, for example if they are*

psychotic, then I don't find it challenging. …….. If they have capacity and are being aggressive and abusive than I find it very challenging." [P7]

Confusion was also apparent in an expressed conflict between nurses' perceptions of what they felt was good for patients and what they considered policy was directing them to do.

"not letting them smoke which is a big one for me because I think that is a ridiculous policy." [P6]

They also highlighted that policy could be inconsistently applied as considerable discretion in decision-making is left to individual staff members whose interpretations of it could vary considerably. This variation may depend on individual staff member's willingness to tolerate challenging behaviour.

"Even section 17 leave that the doctors give is restrictive. For example, patients can only be taken out twice daily or once daily or not take them out after six, even on that it is written at nurses' discretion so still need to use your own assessment whether to do it or not." [P2]

"We have got different thresholds. Some people may respond very (erm), they can take it personally while others may just be objective and deal with what has been said." [P5]

Finally, there appeared to be some confusion around how or when to use restrictive practices.

"if I go on a ward to restrain a patient and staff say "Oh, we cannot restrain patients, less restrictive practice" I would say "You can do it, is an emergency" …… So, some people don't understand it very well, they think that we can't touch them at all." [P3]

"We say in mental health law that we always act reasonably and with necessity... But is there a policy or anything to say we don't seclude if

somebody is shouting or threatening in a specific way, no there isn't. Is down to the perception of the nurses or team." [P8]

This state of confusion around practice and what is acceptable appears to have reduced the ability of staff to implement the PBSPs consistently and appropriately.

Theme: Holistic care

The nurses described several ways in which the PBSPs could facilitate a more holistic approach to care. Some made favourable comparisons with the care plan, suggesting that the PBSP was more comprehensive.

"it (PBSP) gives you a more detailed look at the person. As a nurse you can see you are not just looking at mental health [of the] person, you [are] looking at how everything interacts." [P8]

"it is a very communicative tool, and it declares wellness and is very interactive. I use it with my patients … getting to recognise what are triggers, what are predispositions," [P9]

PBSPs were also considered to improve collaborative care, through in improving teamworking,

"We all agree on certain ways and everyone on the wards knows what the plan is for this patient. There is a continuity of care because every staff member on every day basis applies the agreed plan." [P7]

and through facilitating the involvement of patients and relatives, though it was noted that patients often do not have a relative or anyone willing to be involved in their care.

"you sit down with the patient, you identify the risks and in what context it happens, and you also create a space and environment for the patient to think and contemplate on how we can help them. So, you come up with

a plan with the patient, always from the patients' prospective. You see the world from the patients' prospective." [P5]

"sometimes the family knows the patient more than you know them and if the patient is willing to involve them that even helps much more than you dealing with it as a staff on the ward by yourselves." [P1]

One nurse was clear that through engaging more with patients via the PBSPS they were less likely to use of restrictive interventions.

"Rather than say "off you go to seclusion" or use seclusion as a threat, it doesn't cross my mind now (since the introduction of PBSPs). I kind of engage with the patients more, become more vigilant and spent time with my patients." [P9]

Other nurses highlighted challenges around using the PBSPs. For instance, the perception that it is difficult to engage agency staff with PBSPs was common. It was suggested this was because, not being part of the team, agency nurses lack motivation to deliver more than basic care.

"in my ward there is a lot of agency staff, there are staff members who sometimes may come there who are not particularly interested in following the plan of the team" [P11]

The PBSPs were considered by some to be time-consuming to complete, though this was not necessarily a negative view.

"Is there a way to make it less consuming? Maybe a bit shorter or effective way to fill it in." [P2]

"I think initially when it was explained to me, I thought, "oh God, that's really tiresome", but doing it is really fun and doing it with the MDT team is really like good." [P8]

Data triangulation: Identification of Barriers and Facilitators to PBSP use

Specific barriers and facilitators to using the PBSPs were extracted from both the relative and nurse interview data. These, and the ratings of agreement, dissonance or silence between samples for each barrier and facilitator are shown in Table 2.

There was agreement between the samples for most of the 16 identified barriers (n= 10) and 11 identified facilitators (n = 7). Partial agreement was found for one barrier: 'patient may not be engaged'. Several staff stated this, however, one relative suggested that PBSPs could help when patients are un-able to communicate their own needs. Partial agreement was also found for one facilitator: 'positive attitude towards PBSPs'; this positivity was found in relatives and most, but not all staff. Five barriers and three facilitators were only found in the staff data; these related to how and which staff complete the plans and for which patients. There were no incidences of dissonance (disagreement) between the samples.

These findings were 'cross-checked' against the quality rating scores for the 30 PBSPs in use. Those aspects of the PBSPs which were incomplete for 70% or more PBSPs were considered areas in which the nurses had difficulty. These were related to: the description of, rationale for and process of planned interventions; the delivery of holistic or personalised care; and the patients' behaviour. This difficulty was reflected in the barriers and facilitators to implementing the PBSPs found in the interview data. For instance, in both nurse and relative data, some confusion around the principles of restrictive practice and of PBS was evident. This lack of understanding would necessarily result in difficulties in identifying specific interventions to include in PBSPs. Similarly, not being able to describe the form or function of a patient's behaviour may reflect a lack of understanding of PBS principles. In contrast, though there was strong consensus among nurses and relatives that PBSPs facilitate holistic care, this was not reflected in the manner in which nurses had completed them, i.e. aspects of the PBSPs which reflect the bio-psycho-pharmaco-social nature of patients' difficulties or the interaction of their mental and physical state were not completed for the majority of PBSPs.

Discussion

This initial study of the use of PBSPs as part of routine mental healthcare adds to findings from studies in learning disability services. It was conducted in an inpatient setting with the support of a Nurse Consultant in Acute and Restrictive Practice (LLC). However, the PBSPs were found to be poorly completed and not implemented for every eligible patient. Relatives and mental health nurses, nevertheless recognised the potential value of PBSPs to facilitate holistic care and to minimise the use of restrictive practices. Specific barriers to the implementation of PBSPs in mental healthcare were identified which may explain why they were not used as intended in this setting.

For instance, there was evidence of confusion around how and when PBSPs should be used and for whom. This confusion appeared to be grounded, in part, in a lack of understanding of the principles of positive behaviour support which was a new approach to care for the nurses and relatives interviewed. Positive behaviour support is a multi-component framework for behaviour management which includes (a) developing a bio-psycho-pharmaco-social understanding of the challenging behaviour; (b) the inclusion of stakeholder perspectives and involvement; (c) using this understanding to develop, implement and evaluate the effectiveness of a personalised and enduring system of support; (d) enhancing quality of life outcomes for the focal person and other stakeholders (Gore et al., 2013). Unless this is fully understood, nurses are unlikely to be able to deliver all the necessary elements (LaVigna and Willis, 2012; MacDonald et al., 2010; Gore et al., 2013). This is demonstrated in our findings that the PBSPs in use were poorly completed, that relatives had not been involved in completing any PBSP and in the limited amount of patient involvement reported.

Lack of participation in care planning of relatives and patients within mental health services is common and reported in studies evaluating 'shared decision-making'. Shared decision-making is considered a guiding principle of mental health policy (Slade, 2017). However, many mental health inpatients report not feeling sufficiently involved in decisions around their care (CQC, 2009) and how

best to embed shared decision-making in practice is unknown. A recent cluster randomised trial in community mental health teams in the UK (n = 18 teams, 350 staff, 604 patients, 90 carers) (Lovell et al., 2018) tested the efficacy of a co-delivered training intervention designed to improve patient and carer involvement in care planning. The trial was well conducted, training was well attended and acceptable to staff, however, despite this, it had no significant effects on patient outcomes.

In the current study, Trust-wide training, in the form of a six-hour workshop, had been delivered to some staff while others had received *ad hoc* ward-based training following Trust-imposed cuts to formal training. Whether this was sufficient to inform about PBSPs and to change attitudes towards restrictive practice is unknown. It is possible that more training, possibly delivered on an ongoing basis to account for high staff turnover (i.e. staff leaving and replacements being untrained) and the use of temporary (i.e. agency) staff, would be an improvement. However, the EQUIP trial (Lovell et al, 2018) demonstrates clearly that training alone is insufficient to effect change in care delivery.

Organisational culture is one factor which impacts on healthcare performance, though the exact relationship is unknown (Scott et al., 2003). In this study, nurses expressed divergent views concerning internal policies and several noted difficulty in engaging agency staff with the ward ethos. The underpinning ethos of positive behaviour support is that a reduction in challenging behaviour occurs as a result of efforts to improve overall quality of life (Allen et al., 2005). However, our data suggest that, though advocating an holistic approach to care, many staff were focused primarily on managing challenging behaviours and were selective about which patients received a plan. This appeared to be related to variations in nurses' attitudes, including their willingness to tolerate challenging behaviour, interpretations of ward rules and policies and perceptions of patients. The role of staff attitudes has also been examined in studies of de-escalation of aggression (Price et al., 2018) where a 'biopsychiatric' formulation of deserving (illness-

related) and undeserving (non-illness-related) challenging behaviour has been found to be a barrier. Similarly, clinician attitudes have been found to impact negatively on their engagement with other positive and proactive care approaches such as joint crisis plans (Farrelly et al., 2016) and service user-led care planning (Bee et al., 2015). It appears that a culture of positive and proactive care must exist throughout an organization at every level in order to facilitate the routine use of PBSPs.

Our findings of inadequate use and implementation of BPSPs are consistent with those of an RCT of a multi-component positive behaviour support intervention within a forensic mental health setting (Davies et al., 2018) which, despite improvement in patient outcomes, reported difficulties with implementation. A strength of our study is that we tested a simplified intervention (PBSP) as part of routine care, this has enabled us to identify specific barriers which need to be addressed when training staff and implementing this approach. Though this was a small study within one hospital, confidence in our findings can be derived through our use of mixed methods and a robust triangulation protocol for combining different datasets. A limitation is that views of patients were not sought, this was because the study was conducted in acute settings and patients were considered by the clinical team to lack the capacity to consent to participation in research. However, a service user representative was recruited to the study team and contributed to all stages of the study, including data analysis and reporting.

Implications for mental health nursing

There is an international drive to implement positive and proactive approaches to care for patients with mental health problems in order to reduce the use of restrictive practices. This research provides new insights into the challenges faced by mental health nurses when implementing a positive behaviour support intervention in inpatient settings. In order to be effective, future initiatives will need to ensure that nurses and all those involved understand the rationale and theory behind this approach, that patients and relatives are fully engaged and

that the whole care team and organisation has adopted the model.

Conclusions

This study has shown that nurses and relatives perceive PBSPs as potentially beneficial for patients in inpatient settings. It has also identified specific barriers and facilitators to the use of PBSPs in these settings; these appear to be underpinned by confusion around key concepts such as restrictive practice and positive behaviour support and lack of engagement with relatives and patients. Further research is needed to determine the impact of properly implemented PBSPs on patient outcomes and the use of restrictive interventions. PBSPs are unlikely to be effective however, without the commitment to the approach of the whole care team and organisation.

References

Ajzen, I. (1991). The theory of planned behaviour. *Organisational Behaviour and Human Decision*, *50,* 179–211. doi:10.1016/0749-5978(91)90020-T

Allen, D., James, W., Evans, J., Hawkins, S., and Jenkins, R. (2005). Positive behaviour support: Definition, current status and future directions. *Tizard Learning Disability Review*, 10(2):4–11. doi:10.1108/13595474200500014

Anderson, R. (2008). New MRC guidance on evaluating complex interventions. BMJ 2008;337:a1937. doi:10.1136/bmj.a1937

Armstrong, R., Campbell, M., Craig, H., T., K., V., S., and Waters, E. (2015). Reporting guidelines for population health and policy interventions: TIDieR-PHP. *The Lancet*, 386. (2):S19. doi:10.1016/S0140-6736(15)00857-0.

Ashour, M. (2018). Triangulation as a powerful methodological research technique in technology-based services. *Business & Management Studies: An International Journal*, *6*,193–208. doi:10.15295/BMIJ.V6I1.209

Barrett, P. and Linsley, P. (2017), A text on which the ink never dries: dialogical practices for care and treatment planning. *Journal of Psychiatric and Mental Health Nursing.* 24: 461-468. doi:10.1111/jpm.12368

Bee, P., Price, O., Baker, J., and Lovell, K. (2015). Systematic synthesis of barriers and facilitators to service user-led care planning. *The British Journal of Psychiatry: The Journal of Mental Science*, *2*(104-114). doi:10.1192/bjp.bp.114.152447

Braun, V. and Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology, 3*(2), 77–101. doi:10.1191/1478088706qp063oa

Browning-Wright, D., Mayer, G. R., Cook, C. R., Crews, S. D., Kraemer, B. R., and Gale, B. (2007). A preliminary study on the effects of training using behavior

support plan quality evaluation guide (BSP-QE) to improve positive behavioral support plans. *Education and Treatment of Children*, *3*(89-106). doi:10.1353/etc.2007.0017

Clark, L. L. and Clarke, T. (2014). Realizing nursing: A multimodal biopsychopharmacosocial approach to psychiatric nursing. *Journal of Psychiatric and Mental Health Nursing*, *21*(6)564–571. doi:10.1111/jpm.12159.

Clark, L. L., Shurmer, D. L., Kowara, D., and Nnatu, I. (2017). Reducing restrictive practice: Developing and implementing behavioural support plans. *British Journal of Mental Health Nursing*, *6*(1)23–28. doi:10.12968/bjmh.2017.6.1.23

Cockerton, R., O'Brien, A., and Oates, J. (2015). Implementing positive and proactive care. *Mental Health Practice*, *19*(4)36–39. doi:10.7748/mhp.19.4.36.s21

CQC. (2009). Mental health acute inpatient service users survey. Colchester. UK Data Archive: Care Quality Commission, Essex. doi:10.5255/UKDA-SN-6421-1

CQC 2017. Brief guide: Positive behaviour support for people with behaviours thatchallenge.https://www.cqc.org.uk/sites/default/files/20180705_900824_briefguidepositive_behaviour_support_for_people_with_behaviours_that_challenge_v4.pdf (accessed 18/08/19)

Davies, B. E., Lowe, K., Morgan, S., John-Evans, H., and Fitoussi, J. (2019). An evaluation of the effectiveness of positive behaviour support within a medium secure mental health forensic service. *The Journal of Forensic Psychiatry & Psychology, 1*(15). doi:10.1080/14789949.2018.1459785

Department of Health., (2014) Positive and Proactive Care: reducing the need for restrictive interventions. https://www.gov.uk/government/publications/positive-and-proactive-care-reducing-restrictive-interventions

Doody, O., Butler, M.P., Lyons, R., Newman, D., (2017) Families' experiences of involvement in care planning in mental health services: an integrative literature review. J Psychiatr Ment Health Nurs. 24(6):412-430. doi: 10.1111/jpm.12369.

Farrelly, S., Lester, H., Rose, D., Birchwood, M., Marshall, M., Waheed, W. T., and G. (2016). Barriers to shared decision making in mental healthcare: Qualitative study of the joint crisis plan for psychosis. *Health Expectations*, *19*(2)448–458. doi:10.1111/hex.12368

Gore, N. J., McGill, P., Toogood, S., Allen, D., Hughes, J. C., Baker, P., and Denne, L. D.(2015). Definition and scope for positive behaviour support. *International Journal of Positive behaviour support*, *3*(2), 14–23.

Grundy A., Bee P., Meade O., *et al*. (2015) Bringing meaning to user involvement in mental health care planning: a qualitative exploration of service user perspectives. *Journal of Psychiatric and Mental Health Nursing* **23**, 12–21. **Doi**: 10.1111/jpm.12275

Hammer, J. H., Springer, J., Beck, N. C., Menditto, A., and Coleman, J. (2011). The relationship between seclusion and restraint use and childhood abuse among psychiatric inpatients. *Journal of Interpersonal Violence*, *26*, 567–579. doi: 10.1177/0886260510363419.

Hassiotis, A., Poppe, M., Strydom, A., Vickerstaff, V., Hall, I. S., Crabtree, J., and Crawford, M. J. (2018). Clinical outcomes of staff training in positive behaviour support to reduce challenging behaviour in adults with intellectual disability: Cluster randomised controlled trial. *The British Journal of Psychiatry*, *212* (3), 161–168. doi:10.1192/bjp.2017.34

LaVigna, G. W. and Willis, T. J. (2012). The efficacy of positive behaviour support with the most challenging behaviour: The evidence and its implications. *Journal of Intellectual & Developmental Disability*, *37*(3), 185–195.

doi:10.3109/13668250.2012.696597.

LeBel, J. L., Duxbury, J. A., Putkonen, A., Sprague, T., Rae, C., and Sharpe, J. (2014). Multinational experiences in reducing and preventing the use of restraint and seclusion. *Journal of Psychosocial Nursing*, *52*, 22–29. doi:10.3928/02793695-20140915-01

Lovell, K., Bee, P., Brooks, H., Cahoon, P., Callaghan, P., Carter, L. A., and Bower, P. (2018). Embedding shared decision-making in the care of patients with severe and enduring mental health problems: The EQUIP pragmatic cluster randomized trial. *PLoS One*, *13*, (8) e:0201533–10. doi:10.1371/journal.pone.0201533.

MacDonald, A., Hume, L., and McGill, P. (2010). The use of multi-element behavior support planning with a man with severe learning disabilities and challenging behaviour. *British Journal of Learning Disabilities*, *4*, 280-285. doi:10.1111/j.1468-3156.2009.00602.x

NHS Protect (2014) Meeting Needs and Reducing Distress: Guidance on the Prevention and Management of Clinically-related Challenging Behaviour in NHS Settings. www.reducingdistress. co.uk/reducingdistress/wp-content/ uploads/2014/02/Meeting_needs_and_reducing_ distress.pdf (Last accessed: 17 March 2017.)

Price, O., Baker, J., Bee, P., and Lovell, K. (2018). The support-control continuum: An investigation of staff perspectives on factors influencing the success or failure of de- escalation techniques for the management of violence and aggression in mental health settings. *International Journal of Nursing Studies*, *77*, 97–206. doi: 10.1016/j.ijnurstu.2017.10.002.

RCN (2014) Draft Guidance on the Minimisation of and Alternatives to Restrictive Practices in Health and Adult Social Care, and Special Schools. RCN, London.

Scott, T., Mannion, R., Marshall, M., and Davies, H. (2003). Does organisational culture influence healthcare performance? A review of the evidence. *Journal of Health Services Research & Policy*, *8*(2),105–117. doi:10.1258/135581903321466085

Simpson, A., Hannigan, B., Coffey, M., Barlow, S., Cohen, R., Jones, A., Všetečková, J., Faulkner, A., Thornton, A., & Cartwright, M. (2016). Recovery-focused care planning and coordination in England and Wales: a cross-national mixed methods comparative case study. *BMC Psychiatry* **16 (**147). Doi: 10.1186/s12888-016-0858-x

Slade, M. (2017). Implementing shared decision making in routine mental healthcare. *World Psychiatry: Official Journal of the World Psychiatric Association (WPA), 16*(2), 146–153. doi:10.1002/wps.20412.

Stubbs B, Leadbetter D, Paterson B et al (2009) Physical intervention: a review of the literature on its use, staff and patient views, and the impact of training. Journal of Psychiatric and Mental Health Nursing. 16, 1, 99-105.

Theodoridou, A., Schlatter, F., Ajdacic, V., Rossler, W. J., and M. (2012). Therapeutic relationship in the context of perceived coercion in a psychiatric population. *Psychiatry Research*, *200*, 939–944. doi:10.1016/j.psychres.2012.04.012.

Xyrichis, A., Hext, G., and Clark, L. L. (2018). Beyond restraint: Raising awareness of restrictive practices in acute care settings. *International Journal of Nursing Studies* 86:A1-A2. doi:10.1016/j.ijnurstu.2018.06.006. Epub 2018 Jun 8.

Table 1. Participant characteristics

		Relatives (n) Total n = 7		Nurses (n) Total n = 13
Gender	Female	6		6
	male	1		7
Ethnicity	White or white British	3		6
	Black or black British	1		5
	Other	3		2
Age group	26-45 years	2		8
	46-56 years	4		5
	65+ years	1		0
Employment status	Employed	4		13
	Unemployed	2		n/a
	retired	1		n/a
Highest academic achievement	Completed Secondary School	6	Diploma in Nursing	6
	Diploma	1	BSc (Hons) Nursing	5
	-	n/a	MSc	2
Relationship to patient: Parent		2	Years since qualifying: < 5 years	3
Child		2	5-10 years	3
Sibling		2	10-15 years	4
Partner		1	>15 years	3

Table 2. Barriers and Facilitators to PBSP use: convergence between nurses and relatives

Barriers	**A**	**PA**	**S**
Lack of clarity of purpose re restrictive practice	-		
Perceived discrepancy between nurses/relatives views and policy in terms of patient needs	-		
Lack of understanding of underlying principles of positive behaviour support	-		
Staff 'blaming' patients (e.g patients with personality disorder seen as more responsible for their actions than those with psychosis)			staff only
Staff attitudes (lack of therapeutic relationship, staff with low 'tolerance')	-		
Disagreement over who should have a PBSP			staff only
PBSPs confused with care plans			staff only
Patient may not be engaged (too ill, unrealistic expectations)		-	
Poor relationship between patient and relative	-		
Not all patients have relatives			staff
Hard to engage all staff			staff
Agency staff may not be motivated to use PBSPs			staff
Some teams not familiar with PBSPs			staff
PBSPs are time consuming	-		
PBSPs are unfamiliar	-		
Relatives need help to use PBSPs	-		
Facilitators	**A**	**PA**	**S**
PBSPs are easy to complete and update			staff
Desire to reduce restrictive practice	-		

Positive *vs* punitive approach is welcomed	-		
Positive attitude towards PBSPs		-	
Desire to provide individualised care	-		
PBSPs perceived to improve collaborative and personalised care			staff
Relatives see benefits of PBSPs	-		
PBSPs facilitate communication	-		
Whole team can use and review	-		
PBSPs improve continuity of care	-		
Patient considered central to plan	-		

A = agreement (consensus in both samples); PA = partial agreement (found in both samples, but some dissonance between or within samples); S = silence (a finding in one sample only); NB no dissonance (disagreement between samples) was found.