Positive Behavioural Support: Definition, Current Status and Future Directions

ABSTRACT

This article summarises the historical development of positive behavioural support. The main features of this approach are described, and the evidence for its effectiveness outlined. Despite clear empirical support for its use, relatively few people with learning disabilities and challenging behaviour appear to have access to this form of therapeutic intervention. Reasons for this are discussed, along with recommendations for future development.

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INTRODUCTION

Positive behavioural support (PBS) has its origins in the acrimonious ‘aversives’ debate of the late 1980s and early 1990s. In behavioural terms, an ‘aversive’ is a behavioural event that is followed by escape or avoidance responses. In other words, something happens to a person that they find unpleasant and that they thereafter seek to avoid. Receiving a fine and endorsement on your licence after going too quickly through a speed camera or burning your hand from touching a cooker hotplate are examples of aversive events that we all may encounter and learn from.

Although applied behaviour analysis (ABA) has always offered a menu of possible non-aversive and aversive intervention options for supporting people with learning disabilities and severe challenging behaviour, in practice it is the use of the latter that predominated in the research literature until the start of the 1990s. Matson & Taras (1989), for example, reviewed the behavioural intervention literature published over the preceding two decades and found that 76% of published studies used aversives alone or as part of a combined intervention package. Similar findings were reported
in Lennox et al (1988), while Scotti et al (1991) found an increasing trend to use aversives throughout the 1980s. The types of aversive used in such studies included the contingent application of forced body movement, noxious chemicals (such as an ammonia capsule placed under the nose), electric shocks and the contingent removal of preferred items and activities.

Major changes in the philosophies behind and the structure of services for people with a learning disability were occurring at this time, resulting in a move away from institutional to community-based models of provision. Against this background, the use of aversives became increasingly and appropriately criticised as being in conflict with the values now espoused. In short, it was hard to reconcile the goals of community presence, respect and community participation with, for example, the use of devices designed to give automatic electric shocks to the wearer if they self-injured (Linscheid et al., 1990).

Discussion on this issue consisted initially of hostile and occasionally vitriolic exchanges between the respective proponents of aversive and non-aversive approaches (Repp & Singh, 1990). Fortunately, this rather sterile and unconstructive dialogue gradually gave way to more reasoned debate. As Emerson & McGill (1989) pointed out, a weakness of ABA was that it represented a technology for intervention that was devoid of a guiding values base governing how it should be used. Despite its proven effectiveness, it could therefore easily be abused. The same authors highlighted the fact that the other major theoretical influence on services over the last three decades, normalisation or social role valorisation (SRV), suffered from similar inadequacies. In the case of SRV, however, it was not the values base that was lacking, but an accompanying technology to translate these values into practice. The obvious solution was to overcome the inherent weakness in both approaches by adding them together and creating a new values-led approach to achieving behavioural change. PBS can in many ways be considered to be the product of this fusion.

**KEY FEATURES**

LaVigna and colleagues advocated the use of a non-aversive behavioural model from the mid-1980s (LaVigna & Donellan, 1986; LaVigna et al., 1989), but the first definitive account of PBS principles was provided in a seminal paper by Horner and colleagues (1990). The essential characteristics of PBS include the following.

- It is values-led, in that the goal of behavioural strategies is to achieve enhanced community presence, choice, personal competence, respect and community participation, rather than simply behavioural change in isolation.
- It is based on an understanding of why, when and how behaviours happen and what purposes they serve (via the use of functional analysis).
- It focuses on altering triggers for behaviour, in order to reduce the likelihood that the behaviour will occur.
- It uses skill teaching as a central intervention, as lack of critical skills is often a key contributing factor in the development of behavioural challenges.
- It uses changes in quality of life as both an intervention and an outcome measure.
- It achieves reductions in behaviour as a side-effect of the above.
- It has a long-term focus, in that challenging behaviours are often of a long-term nature and successful interventions therefore need to be maintained over prolonged periods.
- It has a multi-component focus, reflecting the facts that challenging behaviours are often multiply determined and that users typically display multiple forms.
- It reduces or eliminates the use of punishment approaches.
- It includes both proactive strategies for changing behaviour and reactive strategies for managing behaviour when it occurs, because even the most effective change strategies may not completely eliminate risk behaviours from behavioural
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repertoires (LaVigna et al., 1989; Horner et al., 1990; Carr et al., 1990).

More recently, Bambara et al. (2004) described PBS as being:

... characterised by educational, proactive and respectful interventions that involve teaching alternative skills to problem behaviours and changing problematic environments. It blends best practices in behavioural technology, educational methods and ecological systems change with person-centered values in order to achieve outcomes that are meaningful to the individual and to his or her family.

PBS intervention ‘tools’ include:

- altering known conditions that increase the probability of challenging behaviour occurring (for example environmental factors such as space and light, social factors such as the number of people in a setting, programmatic factors such as activity levels, and intra-personal factors such as mental health needs or drug regimes)
- changing specific triggers for behaviour (for example modifying instructional methods, interpersonal style, reducing demands or increasing choice)
- teaching new competencies (such as general skills and coping skills)
- use of differential and non-contingent reinforcement
- specifying changes in carer behaviour and in systems of service delivery
- reactive strategies (for example distraction, evasion, minimal restraint).

LaVigna and Willis elaborate on these intervention options elsewhere in this Issue of the Learning Disability Review.

Although the origins of PBS clearly lie in the field of learning disabilities, its utility is potentially much wider; in the United States, for example, its use has already extended into schools for non-disabled children (Crone & Horner, 2003; Horner et al., 2004).

Effectiveness

It is incumbent upon all practitioners to demonstrate that any intervention that they undertake has demonstrable social validity. Interventions are said to be socially valid when they address a socially significant problem, have clear evidence for their effectiveness in achieving socially significant changes and are undertaken using the least intrusive means acceptable to the main stakeholders involved (Emerson, 2001).

Challenging behaviour can lead to the person concerned being excluded, neglected, abused and exposed to inappropriate interventions. There can be no doubt, therefore, that interventions for challenging behaviour are targeting socially significant problems. Although empirical support is lacking, it also seems intuitively correct that most people would regard PBS methods as less intrusive and more socially acceptable than interventions that employ aversives. This leaves consideration of whether PBS interventions lead to socially significant changes before any conclusion about their social validity can be drawn.

Historically, the behavioural literature has been rather weak in considering this aspect of social validity. Although there are several excellent meta-analyses of behavioural outcome research (Guess et al., 1987; Scotti et al., 1996; Didden et al., 1997), for the most part they have tended to focus on a limited range of outcome measures and mostly on changes in target behaviours themselves.

Carr et al.’s (1999) meta-analysis of PBS outcomes attempts to redress this balance and examines a much broader range of outcomes. They include changes in positive as well as challenging behaviour, stimulus transfer across both people and behaviours, maintenance of gains over time, impact on lifestyle change, and stakeholder views on the social acceptability and effectiveness of the intervention. Clear inclusion criteria were set for the analysis, resulting in the inclusion in the review of 109 published articles featuring 230 service user...
participants and 366 measurable intervention outcomes. The authors concluded that PBS interventions:

- are increasingly addressing severe challenging behaviours (earlier criticisms were that PBS interventions tended to focus on behaviours of lesser concern)
- produce small to significant changes in adaptive, positive behaviours
- produce 90% or more reductions in challenging behaviours from baseline levels in 52% of interventions, and 80% or more in 68% of interventions
- do not vary significantly in outcome according to whether stimulus-based or reinforcement-based interventions are used alone or in combination
- do not vary significantly in outcome if non-PBS interventions are included
- show successful maintenance over periods from between one and twenty-four months in about two-thirds of interventions (although the database here is small and inversely correlated with length of follow-up)
- are likely to generalise across new settings and intervention agents in about two-thirds of cases using the 90% criterion – but evidence of generalisation across different forms of challenging behaviour is weak
- can result in effective lifestyle change and positive evaluations of social validity (but once again, these outcomes are still reported in only a minority of interventions)
- are less effective for combinations of behaviours than for single behaviours
- are twice as likely to be successful if intervention is based on functional analysis
- are also likely to be more effective if interventions include changes in the structure and quality of service systems supporting the individual with behavioural challenges
- are likely to be more effective if implemented by a person’s normal carers (instead of external specialists)
- can produce positive consumer ratings for acceptability and practicality, affect levels of challenging behaviour and affect lifestyle change (but a very small number of studies reported such outcomes).

A wide range of therapies, such as cognitive behaviour therapy and psychotherapy, are now increasingly being offered to people with learning disabilities (Frankish & Terry, 2003), all of which are compatible with the use of PBS. The evidence in support of these approaches is still emerging, however. At present, PBS approaches therefore appear to offer the most ethically stringent, evidence-based intervention option for people with learning disabilities and challenging needs, and thus PBS may be said to represent a socially valid intervention approach.

**Current usage**

This being the case, an evidence-based approach to service delivery would suggest that PBS interventions would be the most common form of therapeutic support available to this group of service users. UK research shows that this is clearly not the case, indicating that only between two and twenty per cent of people in need of such interventions actually receive any kind of behavioural support (Oliver et al, 1987; Harris & Russell, 1989; Qureshi, 1994). It should be noted that, in all these studies, users were recorded as having access to behavioural intervention if even the most basic behavioural guidelines were in place. Had a higher standard been set (for example plans based on functional analysis, including proactive and reactive elements), these figures would have been even lower.

In contrast, 50-60% of people with learning disabilities who challenge will be in receipt of psychotropic (typically anti-psychotic) medication (Kiernan et al, 1995; Fleming et al, 1996) and 50% or more will regularly be restrained (Emerson, 2002). A recent Cochrane review (Brylewski & Duggan, 1999) concluded that there was an almost total absence of supporting data for the efficacy of
antipsychotic medication for challenging behaviour, and that:

*It is debatable whether use of antipsychotic medication for certain people with a learning disability and challenging behaviour is ethical outside of a randomised control trial.*

The risks associated with inappropriate restraint use are similarly well documented (Leadbetter, 2002; Paterson *et al.*, 2003).

In summary, we are currently failing to provide people with learning disabilities and challenging behaviour with effective support. What works best is used least, and what works least is used most. The gap between the rhetoric and the reality of evidence-based practice for this group of service users is both stark and alarming.

**Reasons for non-use of PBS**

There are multiple explanations for the low use of such interventions, and the list which follows is not exhaustive. First, it is clear that we have too few expert staff trained in the competencies of PBS. There are a small number of courses around the UK that specialise in training in PBS-related skills, but the overall impact of such courses in creating a significant number of trained professionals in this area to date is low. This points to the need to develop higher-volume, lower-cost strategies for building PBS competencies. Ideally, such training should have a system-wide focus rather than being targeted on one or two ‘hero innovators’.

Second, while PBS interventions are more effective, they are also much more labour-intensive than less effective alternatives. Historically, interventions have often failed to take into account the needs and abilities of those charged with implementing plans and the constraints that they work under. One of the products of the PBS movement is the development of tools to assess the ‘goodness of fit’ between plans and plan implementers (Albin *et al.*, 1996). Although the greater resource requirements for PBS implementation is likely to remain a difficulty, prior assessment of goodness of fit will help eliminate major imbalances between the expectations of those designing plans and the abilities of those charged with putting them into practice. Debates on the cost of intervention need to focus on cost benefit rather than cost per se. The fact that an intervention is cheap and not labour-intensive is irrelevant if it is ineffective, and the human costs of ineffective treatment are high.

Third, although the benefits of PBS approaches to people with learning disabilities and challenging behaviour are clearly evident from the literature, commissioners have been slow to specify that PBS support must be provided as a key element of services specialising in supporting this group of users. The recent guidance from the National Care Standards Commission in England on best practice in registered homes for people who challenge is therefore a welcome and radical departure, specifying as it does that services must have in place a behaviour plan for their users. It is stated that this must include a functional analysis report, baseline data on behavioural frequency and duration, and both proactive and reactive behavioural support plans (Wing & O’Connor, 2003).

Finally, there is a prejudice against using carefully planned and structured approaches in human services. This is often given superficial legitimacy by reference to normalisation principles or, more accurately, by reference to a distorted account of such principles (Emerson & McGill, 1989; LaVigna & Willis, 1996). By stressing a PBS model, with its clear value base, and by establishing clear links between PBS principles and practices and other key service tools, such as person-centred planning approaches (Wacker & Berg, 2002) or individual educational plans, such resistance can be overcome.

**Moving forward**

Few of the intervention approaches used within PBS are new. They are tools that have been available since the advent of applied behaviour analysis, but which have somehow slipped to the bottom of the
behavioural toolkit. The marriage of behavioural technology with a clear, positive value base has served to remind us of the existence of more appropriate and valued means to achieving good outcomes for people with severe challenges.

While the core approaches within PBS reflect the established elements of the ABA model, they have become increasingly expansive and more sophisticated in recent years. Increased options for antecedent intervention (Luiselli & Cameron, 1998), the development of functional communication strategies (Durand, 1990), the construction of more focused self-control strategies such as anger management (Taylor et al., 2004) and more radical strategies for interrupting behavioural escalation (LaVigna & Willis, 2002) are all examples of this.

PBS is nevertheless still a developing intervention approach. Carr and colleagues (1999) identify a number of opportunities for improvement.

- Present functional analysis tools, while able to yield reliable data, are generally not user-friendly or easy to apply in community settings. Procedures that meet all three criteria are required.
- Outcome evaluation needs to be expanded to include a much broader range of measures than just behavioural change.
- Feedback from both service users and carers on the social validity of interventions should form a crucial part of intervention planning and outcome measurement.
- Greater evidence is required of the effectiveness of interventions conducted in natural settings by normal carers; the bias in the literature has historically been towards interventions conducted by specialists in segregated settings.
- More evidence is required of the outcome of long-term interventions.
- Practitioners need to be prepared to repeat functional analyses, as precipitating and maintaining factors for behaviours will vary over time.
- More evidence is required to show that interventions are being built directly upon the results of such analyses.

In addition, better understanding of the critical organisational and mediator variables (Allen, 1999) that influence successful intervention and maintenance is required. More work needs to be done on building links between person-centred planning procedures and PBS strategies, and on increasing user involvement in functional analysis (Wehmeyer et al., 2004). Finally, the field needs to demonstrate that it can offer effective interventions for more externally directed challenging behaviours such as physical aggression (Didden et al., 1997; Scotti et al., 1996), for behaviours that appear to serve a sensory function (Carr et al., 1999) and for behaviours that occur at low frequency (Whittaker, 1993).

**Conclusion**

The development of better services for people with learning disabilities and complex behavioural needs will in part depend upon a greater use of evidence-based practices. At present, PBS interventions represent our most effective and socially valid, but least used, options for supporting this group of service users. Individual practitioners, care providers, commissioners and government all have a responsibility to ensure that access to positive behavioural support procedures becomes available to all who need them rather than to the select few who benefit from them at present.

**More information**

Further information on PBS can be found on the Association for Positive Behavioural Support website (www.apbs.org).

**References**


Qureshi H (1994) *Parents Caring for Young Adults with Mental Handicap and Behaviour Problems*. Manchester: Hester Adrian Research Centre.


