

BRIEF REPORT

A preliminary investigation of the utility of the “Behavior Support Plan Quality Evaluation Guide II” for use in Australia

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Abstract

Background The quality of behaviour support plans (BSPs) can be an important influence on the quality of the support provided to people with disability who show challenging behaviours. The Behavior Support Plan Quality Evaluation Guide II (BSP-QE II) is one tool that may be useful in assessing the quality of behaviour support plans. It has previously been used to assess BSPs to support children in schools in the USA. In this preliminary study, we examined the utility of the BSP-QE II for assessing behaviour support plans designed for adults with an intellectual disability in community support services in Australia.

Method Experienced practitioners were surveyed concerning the relevance of BSP-QE II components to the evaluation of BSPs in Australia, and an audit was conducted of randomly selected BSPs submitted as a statutory requirement to the Office of the Senior Practitioner.

Results The BSP-QE II showed evidence of acceptable construct validity and interrater reliability. There was evidence of a need for substantial improvement in the quality of BSPs, consistent with previous findings conducted using other audit tools.

Conclusions The findings support the utility of the BSP-QE II, to inform and evaluate service planning in supporting adults with intellectual disability who show challenging behaviour.

Keywords: *behaviour support plans, behaviour support plan quality, challenging behaviour, BSP-QE II*

Introduction

There is considerable evidence available to guide the design of effective behaviour support plans for adults with intellectual disability who exhibit severe challenging behaviour (Allen, 2009; Cook et al., 2007; McVilly, 2007). Various studies support the inclusion of components such as targeted positive interventions that focus on the individual’s learning and needs, attention to environmental factors and a team approach and timely reviews, all of which have been shown to contribute to reductions of challenging behaviour (Carr, Innis, Blakeley-Smith, & Vasdev, 2004; Didden, Korzilius, van Oorsouw, & Sturmey, 2006; Harvey, Boer, Meyer, & Evans, 2009).

In Victoria, Australia, the Disability Act 2006 (Section 141) specifies that all people who receive a government-funded disability service, and who are

subjected to a restrictive intervention (chemical or mechanical restraint and/or seclusion), must have a behaviour support plan¹ (BSP). The BSP is required to specify why and how restrictive interventions will be used for a given individual, and how that person will be supported in positive ways. Consequently, there is a need to objectively evaluate the quality of these BSPs.

Audits completed by the Office of the Senior Practitioner on BSPs submitted during 2007–2009 found that many BSPs did not include critical information, such as providing evidence that a functional behaviour assessment had been completed and positive behaviour support strategies (PBS) were being implemented (Office of the Senior Practitioner, 2008). More recently, Phillips, Wilson, and Wilson (2010) reported similar results. They

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developed an audit tool based on both the requirements of the new legislation in Victoria and accepted clinical practice. They found best practice criteria were inadequately included in BSPs, with little difference between pre- and post-implementation of the new legislation. Based on their findings, the authors concluded that disability support staff were ill equipped to undertake the complex assessments, planning, and implementation associated with behaviour support strategies. However, there could be a variety of other reasons to account for the authors' findings, including the comparatively short time frame over which the pre- and post-measures were taken, and the construction of the audit tool. Also, their sample of plans was drawn from those developed by a single community service organisation, which may not be representative of plans developed across Victoria. Furthermore, although Phillips et al. (2010) reported an overall interrater coefficient of .8, which is within the acceptable range, they did note that the interrater coefficients for some items were not strong.

For a reliable audit of BSPs to be conducted, each of the assessment items need to be objective and easily interpreted by those conducting the audit. Also, there needs to be some means of evaluating the overall results against an established criterion of quality. One potential tool developed in America, the Behavior Support Plan Quality Evaluation Guide II (BSP-QE II; Browning Wright et al., 2007; Browning Wright, Saren, & Mayer, 2003), might be useful for BSPs developed in Australia. The BSP-QE II assesses 12 components of behaviour support planning, including: (1) defining the problem behaviour, (2) specifying the predictors for each behaviour, (3) analysing what is supporting the behaviour to occur, (4) specifying environmental changes, (5) hypothesising functions that relate to the predictors of the behaviour, (6) describing replacement or alternative behaviours that relate to the function of the behaviour, (7) teaching strategies for alternative behaviour/s identified, (8) specifying reinforcers for the alternative behaviour(s), (9) outlining reactive strategies, (10) specifying the goals and objectives that can be used to evaluate progress, (11) details of team coordination, and (12) details of communication strategies among staff. The BSP-QE scoring criteria was revised and has been renamed the BSP-QE II.

To assess quality of BSPs using the BSP-QE II, each of the quality components is rated on a 3-point scale (0, 1, or 2; higher ratings indicating higher quality), based on an objective description specifying the features that are expected of each component. Overall, a behaviour support plan can obtain a score

ranging from 0 (i.e., none of the quality criteria are present in any of the 12 areas) to 24 (i.e., all quality criteria are present across all areas).

There is evidence that the BSP-QE II is both valid and reliable when applied to behaviour plans designed to support children with disability within American schools. Browning Wright et al. (2003) and Cook et al. (2007) found, as predicted, that plans developed by people with advanced training in behavioural theory and practice were rated by the BSP-QE as better quality plans than those developed by "typical team" members who had not received specific training in completing functional behaviour assessments (FBAs) or designing BSPs. In terms of reliability, Browning Wright et al. reported adequate internal consistency across the different items. Interrater reliability was reported to exceed .7 for each item and .8 for the total score (Browning Wright et al., 2007) suggesting adequate interrater reliability.

Other researchers who have used the BSP-QE in America also report that it provides a valid and reliable measure of behaviour support plan quality of plans developed for students within the school system (Kraemer, Cook, Browning Wright, Mayer, & Wallace, 2008; Medley, Little, & Akin-Little, 2008). Taken together, the above findings suggest that the BSP-QE is a valid and reliable audit tool for the assessment of behaviour support plans developed for children in schools in the United States of America.

To date, we know of no work in Australia using the BSP-QE, nor are any data publicly available concerning its use with BSPs that have been designed for adults. The primary aim of the current project was to appraise the utility of the BSP-QE II for use in larger scale quality audits of BSPs submitted, as a statutory requirement of the Disability Act 2006, to the Office of the Senior Practitioner. To this end, a preliminary investigation into the construct validity of the 12 components used in the BSP-QE II, with a focus on service planning for adults with intellectual disability in Australia, and the reliability of the BSP-QE II in terms of interrater agreement was conducted, and the quality of a random sample of BSPs from across Victoria was assessed.

Method

The study was conducted under the provisions of the Disability Act 2006 (Victoria), that provides for the regular review and evaluation of behaviour support plans by the Senior Practitioner, and a protocol approved by the Department of Human Services Human Research Ethics Committee. There were two

main phases to the project: a validity phase and a reliability phase.

Validation phase

Construct validity of the BSP-QE II was evaluated by providing a list of the components of the BSP-QE II to 17 experienced clinicians working within government or community sector organisations who provided behaviour support to teams supporting people with a disability who displayed challenging behaviour. They independently rated each component of the BSP-QE II according to their expert opinion as *extremely important*, *very important*, *somewhat important*, or *not important at all* to the behaviour support planning process. Response types were scored between 1 = *not important* to 4 = *extremely important*. Participants were also asked to provide details of any other components of a BSP they believed were important to the behaviour support planning process.

Reliability phase

Two research assistants (final year undergraduate students undertaking a bachelor degree in disability studies) worked with two experienced clinicians to familiarise themselves with both the principles of positive behaviour support and the specific quality criteria prescribed in the BSP-QE II. This training included four group sessions of an average of 90 minutes each.

A desk audit was conducted involving a total of 65 randomly selected behaviour support plans submitted to the Senior Practitioner, in accordance with the statutory requirements. Five of the plans were randomly selected and subject to an initial consensus coding procedure, which involved all four researchers. The remaining 60 plans were then subject to independent rating by the two research assistants using the BSP-QE II. There were 37 plans from government services and 23 plans from community service organisations. Of the 60 plans, 20 (30%) were subject to assessment of interrater agreement between the two raters. Plans 11–20 and plans 51–60 were selected for these interrater reliability checks.

Results

Construct validity of the BSP-QE II

All BSP-QE II components were rated by the experienced practitioners as being at least *somewhat important*; none were rated as *not important*. On average, all components were rated by experienced

practitioners between *very important* to *extremely important* ($M = 3.51$, $SD = 0.19$). Overall, reactive strategies, team roles and coordination, and communication between team members were rated as *very important* for inclusion, while all other components were rated as *extremely important*. Only four participants provided information about other components they believed were missing. These included: “the clients’ participation in the BSP”; “professional review dates, e.g., when a doctor will review the plan”; “experience of the writer with the BSP process”; and “all strategies need to be measurable, so their efficacy can be evaluated.”

Interrater reliability of the BSP-QE II

Interrater reliability was examined for each of the 12 component scores. Percentage agreement was calculated as the percentage where both raters scored the same scores for each component. Percentage agreement across components ranged between 40% (Team Coordination) to 100% (Reinforcement Strategies). On average, agreement between raters was 82% ($SD = 18.89$). It should be noted that for some components such as reinforcement strategies only 2% of the BSPs included any information about the component. In such instances, the level of agreement reflects agreement on the absence of the information recommended for inclusion in a BSP.

Kappa (Randolph, 2005; a measure of agreement between raters adjusted for chance) was calculated for each of the 12 BSP-QE II categories. The mean rating of kappa was .73. This can be interpreted as indicating a *substantial* level of agreement (Landis & Koch, 1977). However, it was evident that there was variation across the 12 BSP-QE II components. *Perfect* kappa was observed for Reinforcement Strategies. *Almost perfect* kappa was observed for Predictors of Behaviour, Environmental Changes, Replacement Behaviours, Teaching Strategies, Goals & Objectives, and Communication. *Substantial* kappa was observed for Behavioural Descriptions. *Moderate* kappa was observed for Influencing Factors and Reactive Strategies. *Fair* and *slight* kappa were observed for Functions of the Behaviour and Team Coordination, respectively.

In addition, interrater agreement was calculated for two separate times in the assessment process. Interrater agreement was initially assessed after the first 10 plans had been rated and then after a further 20 plans had been rated. An agreement of approximately 75% was found between the two raters after 10 plans had been rated and approximately 90% after the additional 20 plans had been rated. There were no significant differences between the BSP-QE II

total scores for the 20 plans subject to reliability checks, as assessed by Rater 1 ($M = 11.10$, $SD = 3.14$) and Rater 2 ($M = 10.25$, $SD = 2.92$); $t(19) = 3.22$, $p = .005$ (two tailed). Spearman rank correlation between total scores for Raters 1 and 2 was strong and significant ($r = .93$, $p = .000$). Cronbach's alpha was .96.

Quality of the behaviour support plans

Total scores on the 60 BSP-QE II plans ranged between 1 and 15; $M = 10.9$ ($SD = 3.2$), with the $SEM = .41$. Plans that had used the BSP template provided by the Office of the Senior Practitioner were significantly better ($M = 11.32$) than those that had not used the Office BSP template ($M = 8$), $F(1, 58) = 7.7$, $p = .007$. There were no significant differences in quality ratings between plans written by government services or by community service organisations; or between those plans prepared in consultation with behaviour support practitioners and those which had been prepared without this consultation. However, caution is warranted when interpreting these findings due to the comparatively small number of plans that had involved the behaviour support practitioners in their development ($n = 13$, or 22% of the plans). Further analyses on these relatively small sample sizes were deemed inappropriate.

For the 60 plans, each of the 12 BSP-QE II quality criteria were analysed for the distribution of the three quality ratings: 0 (not present), 1 (partially present) or 2 (present). The components with the highest proportion of a score of 2 were: (1) defining the problem behaviour (85% of BSPs); (2) specifying the predictors (77%); (3) analysis of factors supporting problem behaviour (63%); (4) specifying environmental changes (65%); (5) describing replacement or alternative behaviours (53%); and (6) describing reactive strategies (65%). The majority of BSPs did *not* mention four components: (1) teaching strategies for replacement behaviour (98%); (2) specifying reinforcers (98%); (3) specifying the goals and objectives (98%); and (4) function of the behaviour (62%).

Discussion

The aim of the current study was to conduct a preliminary independent investigation of the validity, reliability, and utility of the BSP-QE II for assessing the quality of behaviour support plans developed by staff supporting adults with intellectual disability in community-based services in Australia. An additional outcome was an initial appraisal of the quality

of a sample of BSPs submitted to the Office of the Senior Practitioner using the BSP-QE II.

The findings of this study suggest that the items comprising the BSP-QE II are considered by experienced Australian practitioners as relevant and important to the development of, and for inclusion in, behaviour support plans for adults with intellectual disability supported in community-based residential and day support services. Furthermore, the findings indicate acceptable levels of interrater agreement for the majority of the individual items, when used by people who have undergone some minimal training and practice. To attain proficiency, based on the current findings, practice on between 10 and 20 plans would be recommended. However, caution appears warranted when interpreting four items: team coordination, functions of the behaviours, reactive strategies, and influencing factors. The interrater agreement for these items was relatively low, and substantially lower than that reported by Browning Wright et al. (2007), and thus requires further investigation with a larger sample.

The results obtained in this study using the BSP-QE II are consistent with previous audits conducted in Victoria by the Senior Practitioner (see Office of the Senior Practitioner, 2008; Office of the Senior Practitioner, 2009) and with the findings of Phillips et al. (2010). That is, the quality of BSPs sampled in the current study were poor in that the majority failed to include information about four components identified as important to the behaviour support planning process.

Finally, the BSP-QE II was reported by the research assistants as easy to use. Most plans took between 10 and 15 minutes to score. It can therefore be concluded that the BSP-QE II is relatively quick to use, as well as being a valid and reliable indicator of quality. Moreover, the BSP-QE II provides objective criteria by which to audit plans and provide feedback for continuous quality improvement, as well as an evidence-based framework to guide staff training.

Further work is necessary to establish the predictive validity of the BSP-QE II. To date, there is some limited evidence in support of the predictive validity of the BSP-QE II (Cook et al., 2007). Further research could also be undertaken with a larger sample so that a factor analysis of the separate components can be undertaken. Also, further research is necessary to investigate the validity of the quality categories proposed in the BSP-QE II which are based on total scores, but for which there is currently no evidence relative to service quality or client outcomes.

In conclusion, the current study provides preliminary support for the use of the BSP-QE II as a

valid, reliable, and useful tool to evaluate behaviour support plans developed by staff supporting adults with intellectual disability in residential and day support services in Australia. The findings reported here need to be replicated on a larger scale, and across different jurisdictions in Australia. Finally, it is worth noting that the evidence-based framework of the BSP-QE II offers a useful guide to inform the development of behaviour support plan templates, as well as curricula content for staff development.

Author note

Some of these data were presented at the 2009 Annual ASSID Disability Support Workers Conference in Melbourne. The project was supported in kind by the Department of Human Services, Victoria; there were no restrictions placed on publication. There are no conflicts of interest for any of the authors.

Note

- 1 Referred to as a *Behaviour Management Plan* in the Disability Act 2006.

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