Research in Developmental Disabilities xxx (xxxx) xxx–xxx

Contents lists available at ScienceDirect

Research in Developmental Disabilities

journal homepage: www.elsevier.com/locate/redevdis

Reducing challenging behaviour of adults with intellectual disabilities in supported accommodation: A cluster randomized controlled trial of setting-wide positive behaviour support

Peter McGill[a,*], Leah Vanono[a], Will Clover[b], Emmett Smyth[b], Vivien Cooper[c], Lisa Hopkins[d], Nick Barratt[d], Christopher Joyce[a], Kate Henderson[e], Sheila Sekasi[a], Susy Davis[a], Roy Deveau[a]

[a] Tizard Centre, University of Kent, Canterbury, UK
[b] University of Kent from Dimensions, UK
[c] Challenging Behaviour Foundation, Chatham, UK
[d] Dimensions, UK
[e] University of Kent from Kent and Medway NHS and Social Care Partnership Trust, UK

ARTICLE INFO

Number of reviews completed is 2
This paper belongs to SI: Clustered/ Longitudinal

Keywords:
Intellectual disability
Adults
Challenging behaviour
Positive behaviour support
Randomized controlled trial
Supported accommodation

ABSTRACT

Background: Improving the quality of social care through the implementation of setting-wide positive behaviour support (SWPBS) may reduce and prevent challenging behaviour.
Method: Twenty-four supported accommodation settings were randomized to experimental or control conditions. Settings in both groups had access to individualized PBS either via the organisation's Behaviour Support Team or from external professionals. Additionally, within the experimental group, social care practice was reviewed and improvement programmes set going. Progress was supported through coaching managers and staff to enhance their performance and draw more effectively on existing resources, and through monthly monitoring over 8–11 months. Quality of support, quality of life and challenging behaviour were measured at baseline and after intervention with challenging behaviour being additionally measured at long-term follow-up 12–18 months later.
Results: Following intervention there were significant changes to social care practice and quality of support in the experimental group. Ratings of challenging behaviour declined significantly more in the experimental group and the difference between groups was maintained at follow-up. There was no significant difference between the groups in measurement of quality of life. Staff, family members and professionals evaluated the intervention and its outcomes positively.
Conclusions: Some challenging behaviour in social care settings may be prevented by SWPBS that improves the quality of support provided to individuals.

1. Introduction

Challenging behaviour remains a significant problem in supported accommodation settings for people with intellectual disabilities (cf. Department of Health, 2007). Almost half of residential services use restrictive responses such as physical intervention (Deveau & McGill, 2009). Challenging behaviour is associated with placement breakdown (Phillips & Rose, 2010) and the costly

* Corresponding author at: Tizard Centre, University of Kent, Cornwallis North East, Canterbury CT2 7NF, England, UK.
E-mail address: P.McGill@kent.ac.uk (P. McGill).

https://doi.org/10.1016/j.ridd.2018.04.020
Received 3 November 2017; Received in revised form 15 March 2018; Accepted 23 April 2018

removal of individuals to more restrictive, out-of-area settings (Goodman, Nix, & Ritchie, 2006). Furthermore, it is associated with high rates of injury to care staff (National Task Force on Violence against Social Care Staff, 2001).

Generally, challenging behaviour is treated as an individual problem requiring intervention by psychologists, psychiatrists or other behaviour support professionals (Royal College of Psychiatrists, British Psychological Society, & Royal College of Speech and Language Therapists, 2007). But many such professionals now adopt *positive behaviour support* (PBS) (Carr et al., 2002), an approach inevitably leading to a focus on the context in which challenging behaviour occurs – "the central independent variable in PBS is systems change" (Carr, 2007, p.4). Such change is not easily obtained with regular reports of difficulties implementing the proposed treatments both in social care (Ager & O'May 2001) and educational settings (Bambara, Nonnemacher, & Kern, 2009). The difficult behaviour presented in schools has been recognised as requiring a broader approach, more focused on prevention (Sugai & Horner, 2002). The development of *school wide positive behaviour support* in the USA reflects this (Horner et al., 2009) but there has been little attention to the potential for a similar approach in social care.

A setting wide approach is consistent with theoretical developments in our understanding of challenging behaviour. Once seen as an almost inevitable concomitant of intellectual disability, it is now regarded as arising from the complex interaction of biological, developmental and environmental factors (Langthorne, McGill, & O'Reilly, 2007). In particular, it has become clear that certain characteristics of the social environment (such as social deprivation and aversive stimulation) may underpin the motivation of challenging behaviour (McGill, 1999). Altering such "motivating operations" (Michael, 2007; Simó-Pinatella et al., 2013) then becomes a theoretically viable approach to preventing or reducing the occurrence of challenging behaviour in those at increased biological risk (cf. Emerson & Einfeld, 2011).

Such an approach would need to focus on improving the quality of social care especially in those areas known (through the development of individualized PBS strategies) to be associated with challenging behaviour. These include, amongst others, opportunities for choice (e.g., Dyer, Dunlap, & Winterling, 1990), predictable environments (e.g., Flannery & Horner, 1994), positive social interactions (e.g., Magito-McLaughlin & Carr, 2005), more independent functioning (e.g., O'Reilly, Cannella, Sigafoos, & Lancioni, 2006) and personalised routines and activities (e.g., Brown, 1991). Such an approach has been endorsed by the NICE guidelines on challenging behaviour (Murphy, 2017; NICE Guidelines, 2015) in which the term "capable environment" is used to summarise the characteristics of support that may reduce the risk of challenging behaviour. There remains, however, very little evidence of the impact of such an environment. Most intervention trials have been of psychotropic medication with mixed results leading NICE to recommend that medication not be used as a first-line intervention for challenging behaviour. A small number of trials have shown that cognitive behaviour therapy (Vereenooghe & Langdon, 2013) and individualized PBS can be effective (Hassiotis et al., 2009). There is also evidence that training staff in PBS is associated with reductions in challenging behaviour (MacDonald & McGill, 2013). However, the impact of improving the quality of social care remains untested.

The current study set out to develop and evaluate an approach to improving the quality of social care in supported accommodation settings, drawing on work on quality improvement (e.g., LaVigna, Willis, Shaull, Abedi, & Sweitzer, 1994) and approaches to changing staff practice in residential settings (e.g., Mansell and Beadle-Brown, 2012). The primary hypothesis was that intervention would be associated with reductions in challenging behaviour. Secondary hypotheses were that intervention would lead to improved quality of support and a better quality of life. A parallel study, the results of which are reported separately, investigated the outcomes of the intervention for social care staff.

2. Method

2.1. Design

The study was carried out as a pragmatic, cluster randomised, controlled trial (RCT) (Hotopf, 2002). Intervention was implemented by a small team consisting of the Principal Investigator (PI), one full-time researcher and two part-time researchers. Two researchers implemented the intervention in each setting with one taking the lead and one a support role. Allocation of researchers to settings was geographically driven – the part-time researcher based in the North of England worked with settings in that region and the part-time researcher based in the South of England worked with settings in that region. The full-time researcher was involved in the intervention in all settings, either as lead or support. The PI supervised the intervention process through regular meetings and telephone conferences attended by the three researchers.

2.2. Ethical and governance approvals

The study received ethical approval from the Social Care Research Ethics Committee (REC Reference 12/IEC08/0018) including for the participation of persons lacking capacity to consent. Governance applications were made to and agreed by 14 local authorities covering all the settings (control and experimental) that participated. Approval was also gained from the Association of Directors of Adult Social Services. Staff and intellectually disabled participants with capacity to consent received comprehensive, accessible information about the project and provided written consent. Intellectually disabled participants lacking capacity to consent participated (consistent with the *Mental Capacity Act*) through signed declarations from personal or nominated consultees.

2.3. Settings and participants

The study ran from 2012 to 2016 in residential settings for 1–8 adults with intellectual disability. Social care in all settings was