Behaviour Management versus Behaviour Change: A Useful Distinction?

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“In the long run we will all be dead!”

(John Maynard Keynes, 1883-1946)

The above quotation was attributed to a famous economist who was concerned that too much emphasis was placed on long-term economic policies rather than short-term solutions to more immediate problems or crises. This review will focus on a similar dilemma in the area of behavioral psychology and the short term versus long term solutions for individuals who present with challenging behaviours. We will argue that the distinction between behaviour management and behaviour change strategies is useful for both practitioners and researchers.

_Challenging behaviours_

Challenging behaviours have remained a major topic of concern for many years in services for people with developmental disabilities. Emerson (1995) defines challenging behaviour as: "culturally abnormal behaviour(s) of such an intensity, frequency or duration that the physical safety of the person or others is likely to be placed in serious jeopardy, or behaviour which is likely to seriously limit use of, or result in the person being denied access to ordinary community facilities.” (Emerson, 1995, p.4). This definition places the focus on services and social systems rather than individuals. Challenging behaviours are a function of a service or system, and consequently interventions must take account of ecological variables, as opposed to viewing the target behaviour in isolation (Donnellan et al. 1988).
The Impact of Challenging Behaviours

Challenging behaviours have been implicated in the breakdown of family placements (Rousey, Blacher and Haunerman, 1990), placement in more restrictive settings such as institutions (Hill and Bruininks, 1984), breakdown of community placements and subsequent readmission to hospital services (Allen 1999; Lakin, Hill, Hauber, Bruininks and Heal, 1983). Challenging Behaviour may be associated with specific diagnoses. A recent meta-analytic review of 86 studies on challenging behaviours identified risk markers of challenging behaviours (McClintock, Hall and Oliver, 2003). In the case of aggression these risk markers included a higher prevalence of males with a diagnosis of autism and deficits in expressive communication. Challenging behaviours give rise to injury to carers and peers (Hill and Spreat, 1987) and may in some circumstances be associated with high staff turnover and lower job satisfaction (Razza, 1993; George and Baumeister, 1981). These behaviours may furthermore result in injury to clients when attempts are made to restrain them and thus may provoke physical abuse from carers (Rusch, Hall and Griffin, 1986). This may reflect a subjective interpretation of the importance of challenging behaviours to staff that work 'in the front-line'. The need for advice and training on how to manage these behaviours and for carers to defend themselves non-violently, whilst also ensuring client safety, has been acknowledged (Allen, MacDonald and Doyle 1997; Rusch et al. 1986).

Staff emotional responses to Challenging Behaviours

Challenging behaviours can evoke powerful emotional responses in individuals (Oliver, 1993) and can generate fear among care staff who are often expected to manage such behaviours in their day-to-day work. Singh, Lloyd and Kendall (1990)
dramatically stated that “they may physically attack others, children and adults with a fury that elicits the label of a Banshee; they may throw heavy objects such as televisions across rooms regardless of whom the object hits” (Singh, Lloyd and Kendall, 1990, p.3).

The Development of Positive Behavioural Supports

Fuller (1949) applied operant technology to the shaping of a motor response in a young man with developmental disabilities. This led to the emergence of the application of behavioural technology in care settings. Early behavioural intervention strategies tended to focus on consequence based strategies. Over the last two decades there has been a substantial move away from consequential punishment based interventions to those based on reinforcement contingencies (Lerman and Vorndran, 2002; Donnellan et al. 1988; LaVigna and Donnellan 1986). Positive behavioural support is a development of applied behaviour analytic interventions which state that “to remediate problem behaviour, it is necessary first to remediate problem contexts. There are two kinds of deficiencies: those that relating to environmental conditions and those relating to behaviour repertoires” (Carr et al. 1999, p4).

Carr et al. (1999) concluded that positive behavioural supports were widely applicable to a variety of care settings and that stimulus based interventions were becoming more commonplace than reinforcement based procedures. They concluded that “modest to substantial increases in positive behaviour are typically observed following the application of positive behavioural supports” (Carr et al. 1999, p4). Scientific approaches to human behaviour such as positive behaviour support approaches have had a major impact on services for people labeled with learning disabilities (Parmenter, 2001).
Crisis interventions are a critical component of community supports for people with a learning disability who present with aggressive behaviours (Hanson and Weiseler, 2002; Lakin and Larson, 2002). Carr et al. (1994) maintained that crisis interventions are needed “It is a mistake to think that once an intervention is underway, you no longer need to worry about serious outbursts and the necessity for crisis management” (Carr et al. 1994, p.14). Research reviews have presented a relatively optimistic view of behavioural interventions although the majority of this literature reports studies that are relatively short-term in nature (Ager and O'May 2001; Didden, Duker and Korzilius, 1997; Scotti, Ujcic, Weigle, Holland and Kirk, 1996; Emerson, 1995; Emerson, 1993). Furthermore comparatively few individuals’ behaviours were successfully changed in these studies (Reiss and Havercamp, 1997). In sum, challenging behaviours are likely to be long-term and not necessarily changed by transferring people from hospital to community housing (Emerson and Hatton, 1996; Felce, Lowe and DePaiva, 1994). Involvement of specialist behavioural input may not always prevent the breakdown of placements (Allen, 1999). There is also some evidence, which suggests that interventions do not always appear to maintain behaviours (Whitaker, 2002). Indeed, challenging behaviours are now acknowledged to be extremely complex in nature (Felce and Emerson, 1996).

Distinguishing behaviour management and behaviour change strategies

Despite the increasing improvements in positive behavioural support technology incidents involving physical aggression will be likely to occur for a significant proportion of individuals with a learning disability. Behavioural change outcomes are not necessarily the only goal and short-term management of aggressive behaviours
has been acknowledged to be important in the literature (LaVigna and Willis, 2002; Willis and LaVigna, 1985). For the short term management approaches the expression 'crisis procedures' has been adopted by some authors (LaVigna and Donnellan, 1986). In a book entitled 'Progress without Punishment' (Donnellan, LaVigna, Negri-Schoulz and Fassbender, 1988) the authors briefly mention a distinction between 'changing or managing challenging behaviours' although no definition of behaviour management was provided.

Oliver (1993) in a review of self-injurious behaviours argued strongly that a distinction should be made between a response and a strategy. Presumably strategies involve a longer-term treatment approach. Thus, if an operant response is not replaced with alternative responses, then lasting behaviour change is unlikely to occur.

Responses are short-term approaches to behaviour that are limited in their focus. Similarly, a distinction has been made between behaviour management and behavioural treatment goals (Gardner and Cole, 1987). The objective of behaviour treatment is to produce “enduring behaviour change that will persist across time and situations' (Gardner and Moffatt, 1990, p.93).

Behaviour management is intended to reduce the frequency or intensity of aggressive behaviour without necessarily producing enduring change in the individual. Carr, Levin, McConnachie, Carlson, Kemp, and Smith (1994), argue that without an educational component behavioural change cannot be achieved by crisis management procedures. Similarly reactive strategies require proactive components to alter behaviour (LaVigna and Willis, 2002). However, if behaviour change is defined more narrowly as a reduction in the frequency of target behaviours, then under such a definition behaviour change could arguably occur in the short term. The problem with this argument is that behaviour change would be almost impossible to define and
research. While this distinction would appear to have a degree of 'face validity', the vast majority of research has tended to focus on behavioural treatments and interventions.

The confusion in terminology would appear to require clearer operational definitions. For the purposes of this article a behaviour change strategy “involves changes in intensity, frequency or episodic severity that maintain across situations and time”. Behaviour management involves “strategies which contain a behaviour and reduce the risk of harm to service users and staff without attempting to alter the behaviour per se”. In this definition reductions in intensity, frequency or episodic severity of challenging behaviours may occur but the primary goal is one of safety and containment. Therefore, physical interventions, most pharmacological management, mechanical restraint, seclusion and isolation would be behaviour management strategies.

Behaviour management strategies are an essential component of behavioural interventions. This is particularly true of interventions that involve extreme behaviours. Challenging behaviours have been noted to increase after the implementation of behavioural interventions (Iwata, Pace, Cowdrey and Miltenberger, 1994). There are two common side effects. First an ‘extinction burst’ can occur where there is a temporary increase in the frequency, duration or magnitude of a target behaviour. Second extinction induced elicited aggression can occur (Lerman, Iwata and Wallace, 1999; Lerman and Iwata, 1995; Azrin, Hutchinson and Hake, 1963). In Lovaas and Simmons (1969) classic study one of the subjects did not participate in the extinction part of the experiment due to the risks of severe self-harm that may have resulted during the process. The severity of these 'bursts' has led to some authors recommending the wearing of protective headgear and clothing for care
staff in extreme circumstances (Ducharme and Van Houten, 1994). It is therefore implicit in any intervention that behavioural excesses may have to be managed in the short-term before long-term results can be achieved. However, people who are confronted by potentially aggressive individuals may be forgiven for concerning themselves with short-term crisis intervention. The removal of an aversive stimulus such as aggressive behaviour can be a powerful reinforcer (Oliver, 1993). Coping strategies that manage increases in aggressive behaviour are an important component of any behavioural intervention. Punishment procedures may appear to be quite attractive to staff as they rapidly suppress target behaviours (Lerman and Vorndran, 2002).

*Pharmacological management*

Pharmacological approaches have probably been the most widely used approach in the field of learning disability to manage aggressive behaviours. In a survey of 625 service users in Canada, 54% of the sample were receiving medication for behaviour control purposes (Feldman et al. 2004). Emerson, Robertson, Gregory Hatton, Kessissoglou, Hallam and Hillery (2000) in a sample of 500 people in the UK and Ireland found that antipsychotic medication was more than three times as likely to be the treatment of choice than written behavioural programmes. Polypharmacy, that is the multiple administration of similar classes of medication, is not an unusual practice in learning disability services (Lott, McGregor, Engelmann, Touchette, Tournay, Sandman, Fernandez, Plon and Walsh, 2004; Spreat, Conroy and Fullerton, 2004; Robertson et al. 2000; Kiernan, Reeves, and Alborz, 1995). It is also much easier to operationally describe drug treatments.
Kroese et al. (2001) suggested that the prescription of medication for behaviours or aggression, without considering the functions of these behaviours, represents a poor use of drug-based therapies. Paradoxically many professionals who work in the fields of learning disabilities tend to prefer behavioural interventions as opposed to drug based therapies; this however does not appear to be reflected in day-to-day practice (Emerson et al. 2000; Robertson et al. 2000). Longer term pharmacological interventions may lead to behaviour change as defined in this article. It can be unclear to practitioners whether these types of interventions are predominantly behaviour management strategies.

Emergency medication clearly falls within the category of behaviour management. Emergency medication involves the application of medication to achieve rapid control of aggressive behaviours. Roberston, Emersom, Gregory, Hatton, Kessissoglu and Hallam (2000) reported evidence about the administration of such drugs in a PRN manner. PRN (as and when required) medication is used in a number of services in the UK, however its role appears to require more scrutiny. There appears to be a wide range of dosages adopted throughout services in the U.K. Sedation would appear to be the main rationale for the usage of drugs in this manner.

**Physical Restraint**

Physical restraints are behaviour management strategies used to manage predominantly aggressive behaviours. Physical restraint is defined as “actions or procedures which are designed to limit or suppress movement or mobility” (Harris, 1996, p100).

The physical restraint of people who present a danger to themselves or others, may well be socially undesirable but at times a necessity. Studies have shown that restraint
can act as a positive reinforcer in some instances (Favell, McGimsey and Jones, 1978).

Physical restraints are still used in services for people with a developmental disability. A study of aversive procedures in Minnesota found that physical restraint, especially manual restraint was the most commonly used management procedure in community settings (Nord, Wieseler and Hanson, 1991). Emerson et al. (2000) in a survey of 500 people in the United Kingdom and Ireland labelled with challenging behaviour reported 23% of the sample had experienced physical restraint. A similar survey of disability services in Canada reported that 13.3% of a sample of 625 service users had physical restraint as a component of their intervention plan (Feldman, Atkinson, Foti-Gervais and Condillac, 2004).

It is perhaps not surprising that physical restraint methods have been employed by care staff to manage aggressive behaviours, and still remain in use in both hospital and community settings (Emerson, 2002; Harris, 1996; Nord, Wieseler and Hanson, 1991). To date, we understand very little about the use of physical behaviour management strategies.

Mechanical restraint

The use of mechanical restraint to manage self injurious behaviour is documented in the literature (Oliver, 1993). Mechanical restraints can involve protective arm splints, head gear and protective cuffs or mittens. Mechanical restraint on its own is unlikely to remove the risk of self injury as when the devices are removed the behaviour is likely to continue to be exhibited by the person (Paley, 2008). The use of these devices does raise serious ethical issues. There is comparatively little research which investigates the effectiveness of these methods (Jones, Allen, Moore, Phillips and
Lowe, 2007). Mechanical restraints are by our definition behaviour management strategies as they do not directly alter the underlying causal mechanisms. In cases of very severe or life threatening self injury their use may be required.

**Seclusion/Isolation**

Sailas and Wahlbeck (2005) defined seclusion as “the placement and retention of a person in a bare room either by locking the door or by stationing staff at the door to ensure the person remains inside”. It’s use in developmental disability services appears to be predominantly in hospital based services (Mason, 1996). The practice of seclusion meets the definition of a behaviour management strategy. Seclusion is used in psychiatric services and has been a subject of research interest (Whittington, Baskind and Paterson, 2006). There is comparatively little research about it’s usage in developmental disability services.

**Reducing Restrictive Behaviour Management Practices**

There has been an increasing focus on the reduction of restrictive practices (Deveau and McDonnell, 2008). Some authors are even now suggesting that the lack of empirical evidence should not be a barrier for restricting the use of strategies such as physical or mechanical restraint (Sturmey, 2008). In Europe there has been an increasing emphasis of the rights of people being cared for in the least restrictive environment available and the least restrictive treatment available taking into account their health needs and the need to protect the safety of others (Council of Europe 2004).

Strategies for reducing the usage of restrictive physical interventions appear to be quite limited. Staff training in physical interventions has been widely adopted in the
UK (Deveau and McGill, 2007); despite the fact that there is limited evidence that staff training approaches reduce the usage of such methods (Allen, 2001). There are many policies and practices in organisations which may maintain the use of restrictive physical interventions (Deveau and McDonnell, 2008).

**Social Validity**

Behaviour management strategies need to be designed within a socially valid framework (Wolf, 1978). The aversive / non-aversive debate would appear to have produced a polarisation of views. Outcome measures are increasingly being broadened to include constructs such as social validity (Wolf, 1978). Behaviour management strategies that involve physical responses to challenging behaviours should be examined within this context. Baker and Allen (2001) highlighted that high-risk service users may be at risk of abuse from staff using physical interventions. There is a growing literature which involves the views of people with developmental disabilities about behaviour management (Hawkins, Allen and Jenkins 2005; Sequeira and Halstead 2001). Two qualitative studies report strong emotional reactions of service users to physical interventions (Fish and Culshaw, 2005, Sequeira and Halstead, 2004). A recent study of the views of service users and staff experiences of physical interventions in the UK reported discrepancies between staff and service user views of physical interventions. Staff reported using the methods in a non-punitive manner whereas some service users reported that they felt that they were being punished (Fish and Culshaw, 2005).

It is the contention of the authors that a focus on both the empirical and moral arguments for behaviour management strategies should lead to a greater emphasis on
their reduction. More research is needed which investigates the social validity of a wide range of behaviour management strategies.

*Do all behaviours need to be changed?*

One argument which has to be considered within the context of managing and changing challenging behaviour is whether all behaviours need to be changed. The advances in behavioural technology and the use of PBS (Carr et al. 1999) provide a reasonably extensive ‘toolkit’. Behaviour change should always be a desirable outcome, but for some individuals behaviour management may be sufficient per se. Consider the example of a young man with autism who repeatedly asks the same question to staff. Changing this behaviour may involve a range of strategies such as long term redirection plans, teaching a functionally equivalent response, altering a response chain all with a view of eliminating the above described behaviour. From a behaviour management perspective if the young man repeats the question 20 or 30 times before he can continue with an activity, does that really require an intervention? In contrast repeated use of physical interventions or mechanical restraints would be undesirable if they remained unaltered.

**Conclusion**

Staff who support people with challenges in a variety of care settings need to be able to manage crises effectively (Allen, 2001). In this article we have examined the distinction between behaviour change and behaviour management strategies. We have created two modified definitions and applied this distinction to a variety of behaviour management strategies. It is our contention that this distinction has great heuristic value for families, staff and professionals.
We make this distinction to highlight the need to bridge the gap between research and day to day practice. The development of more effective behaviour management technologies would therefore benefit researchers (Allen, 2002). There is clearly a paucity of data about the use and reduction of behaviour management strategies in services for people with developmental disabilities. We stress that effective behaviour management should not be viewed as an alternative to behaviour change strategies. However, if we develop a better understanding of their use and reduction there are clear benefits to consumers.
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