Developing non aversive behaviour management strategies: The use of low arousal approaches.

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Abstract

Long term behavioral interventions do not necessarily lead to short term reductions in challenging behaviors. Behavior management strategies have been acknowledged to be important by a wide range of researchers and clinicians. However, there is little research that discusses the content of such strategies. This article introduces a theoretical rationale for a collection of non aversive behaviour management strategies described as low arousal approaches. Three case studies are presented which illustrate key aspects of the approach. Recommendations for further research into behavior management strategies are made.

Introduction

Challenging behavior in people with mental retardation is a major concern of service providers. Many of these behaviors are likely to be long term and not necessarily changed by transferring people from hospital to community housing (Felce, Lowe & DePaiva, 1994; Emerson & Hatton, 1996). Recent research has implied that these behaviors tend to be long term with few people being 'cured' (Reiss & Havercamp, 1997). It has been suggested that successful non-aversive intervention should contain long term pro-active intervention strategies combined with short term reactive strategies (Donnellan, La Vigna, Negri-Schoulz & Fassbender, 1988; Horner, Dunlap, Koegel, Carr, Sailor, Anderson, Albin, & O'Neill, 1990; LaVigna & Donnellan, 1986). Despite this emphasis little

information exists about the content of behavior management strategies (McDonnell & Sturmey, 1993).

Behavior management strategies

A distinction between behavior treatment and behavior management has been proposed in the literature (Gardner & Cole, 1987). Behavior treatment has been defined as 'enduring change that will persist across time and situations' (Gardner & Moffatt, 1990, p93). In contrast the goal of behavior management strategies is the rapid reduction of aggression. Many researchers use terms interchangeably these include: reactive strategies (Willis & LaVigna, 1985; LaVigna & Donnellan, 1986) and crisis management (Carr, et al, 1994). For the purposes of this review the term behavior management will be adopted to refer to all short term behavior reduction methods.

Non aversive behavior management strategies have been acknowledged to be important by a number of researchers (Carr, et al, 1994; Robinson & Palumbo 1994; LaVigna & Donnellan, 1986). Given, the vitriol of the aversive nonaversive debate (Singh, Lloyd & Kendall, 1990) it is a little surprising that the definition of what constitutes a nonaversive approach is poorly described in the literature. For the purposes of this paper a nonaversive behavior management strategy will include any behavior management technique which avoids the use of punishing consequences to behavior. There can be little doubt that aversive consequences can make effective behavior management strategies (Coe & Matson, 1990). In cases where behaviors are potentially life threatening aversive interventions may be required for their speed of effect (Coe & Matson, 1990). It is a debatable point whether these strategies constitute behavior management or behavior treatment. The case of 'Harry' (Foxx, 1990) would imply that enduring change can occur in some circumstances. Aversive consequences have their appeal primarily because they can produce rapid reductions in target behaviors. Presumably, the removal of

aversive stimuli from a staff perspective operates on negative reinforcement principles (Taylor & Carr, 1992; Iwata, 1987) The popularity of pharmacological interventions may be due their success in rapidly removing aversive behaviors, rather than producing long term changes (Allen, 1998).

The reduction of target behaviors per se is not the only viable goal, LaVigna, Willis & Donnellan, (1989) recognised that 'a major goal of research should be to develop reactive strategies that minimize the potential of either reinforcing or aversive qualities' (p62). Non aversive behavior management strategies have been acknowledged to be an important facet of a non punitive approach to the management of challenging behaviors (McDonnell, Cleary, Reeves, Hardman & King, 1997; Allen, McDonald, Dunn & Doyle, 1997). While there are a number of outcome studies on long term non-aversive interventions (Whitaker, 1993, Emerson, 1993), there appears to be no coherent academic model or rationale for the content of non aversive short term behavior management strategies (McDonnell & Sturmey, 1993). A lack of empirical data for the development of such plans is concerning as challenging behaviors have often been noted to increase after the implementation of behavioral interventions, which can lead to so called "extinction bursts" (Iwata, Pace, Cowdrey & Miltenberger, 1994). 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 & Van Houten, 1994). There is a clear need for behavior management strategies for people who present with severe challenges. Recent research has suggested that training in behavior management approaches can reduce care staff injuries (Allen, McDonald, Dunn & Doyle, 1997) and increase staff confidence (McDonnell, 1997; McDonnell & Jones, 1998)). This paper does not attempt to detract from the utility of long term proactive behavioral interventions. However, it will attempt to discuss the content of short term non aversive strategies.

Strategies for defusing incidents.

Interrupting behavioral sequences.

What do you do when you are confronted by an individual who is clearly agitated or angry ? It is very difficult to answer this question due to the limited amount of research in this area. Stimulus change has been suggested as a useful strategy. It has been defined as 'the sudden and noncontingent introduction of a new stimulus or the dramatic alteration of stimulus conditions resulting in a temporary period of target response reduction' (p128) (Donnellan, LaVigna, Negri-Shoultz & Fassbender, 1988). This can involve literally doing something 'odd or bizarre' to interrupt a behavior. Typical strategies can include 'singing, jumping up and down, giving a ridiculous instruction, telling the other clients to jump up and down, laughing hysterically'. (Willis & LaVigna, 1985). Similarly, 'gentle teachers' have often advocated interrupting and redirecting challenging behaviors (McGee, et al 1987). .

While this would appear to be a laudable philosophy, practical applications of such an approach could be potentially quite dangerous. There is very little research conducted into the effectiveness of these types of procedures (McDonnell & Sturmey, 1993). The social validity (Wolf, 1978) of some of these strategies also has to be questioned. Even if a strategy was effective, it is still important to consider how other people might perceive the approach. As in the case of stimulus change, what would a lay observer think if they saw a member of staff laughing hysterically at a person with a learning disability who appeared to be in distress?

Ignoring behaviors

Extinction denotes a procedure where a previously reinforced response is no longer reinforced, whereas the term 'ignoring' simply means that attention will not be delivered when a certain response occurs (Repp & Brulle,

1981). Differential reinforcement schedules contain elements of ignoring challenging behaviors (Donnellan et al, 1978) as do gentle teaching strategies (McGee, et al, 1987). Ignoring a person who is being verbally abusive may have a sound behavior treatment objective. However, there are a number of reasons why ignoring behaviors may be unwise from a behavior management viewpoint. First, consistently ignoring behaviors could theoretically lead to increases in the behavior especially 'extinction bursts' (Iwata, et al, 1994; Ducharme & Van Houten, 1994). Second, while there is little empirical evidence, anecdotal evidence does imply that people tend to get more aroused and angry if they are trying to communicate something to a person who is ignoring them. Third, ignoring an adult with challenges may be impractical in many community settings Fourth, behaviors that threaten the physical safety of persons are almost impossible to ignore. Ignoring behaviors as a strategy usually in conjunction with other components. In differential reinforcement programmes positive behaviors are reinforced and negative behaviors are effectively ignored (Donnellan, et al, 1988). Gentle teaching advocates ignoring behavior in conjunction with other strategies such as redirection and reward (McGee, et al,1987). If the main objective of behavior management is the rapid reduction of target behaviors, strategies that involve ignoring behaviors should be viewed with some degree of scepticism.

Low arousal approaches

McDonnell, McEvoy & Dearden, (1994) reviewed a number of defusion strategies and recommended the adoption of low arousal approaches as a first option when designing reactive strategies. The approach has been defined as "A collection of behavior management strategies which focus on the avoidance of confrontation. This is primarily achieved by the reduction of triggers / cue behaviors which may arouse an individual who presents with challenging behaviors". There are four components to the approach. First, the reduction of

potential points of conflict around an individual by decreasing staff demands and requests; Second, the adoption of strategies which avoid potentially arousing triggers (direct eye contact, touch, removal of spectators to the incident); Third, a major emphasis is placed on the avoidance of non verbal behaviors that may lead to conflict, (such as aggressive postures and stances). Fourth, the approach attempts to challenge staff beliefs about the short term management of challenging behaviors. There is some evidence that the adoption of such an approach can reduce the frequency of challenging behaviors (McDonnell et al, 1998). The goal of such approaches is primarily a reduction in target behaviors rather than long term behavioral changes.

Reduce staff demands / requests

Staff behavior has become a major focus of recent research (Hastings, 1997). It has also been reported that staff demands often precede incidents of challenging behavior, (McDonnell, Johnson & Allen, 1997). Much of this behavior may well operate on negative reinforcement principles (Taylor & Carr, 1992; Cipani & Spooner, 1997)

Placing demands on a person who is probably already upset can lead to incidents (Carr & Newsom, 1985; Carr, Newsom & Binkoff, 1980). In a recent review of strategies to enhance compliance (Cipani & Spooner, 1997) four approaches were suggested these included: errorless learning, Differential reinforcement of alternate escape behavior, behavioral momentum (Mace, Lalli, Belifore, Pinter & Brown, 1990) and functional communication training strategies. These strategies may help an individual comply with demands and requests. However, it is interesting to note that the reduction of demands was not considered as an option. A behavior management strategy might consider the reduction of demands to low rates per se as a viable strategy. This is especially true when the consequence of placing a demand may increase the liklihood of physical assault

Engaging people in purposeful activities can also reduce the frequency of challenging behaviors (Hill & Chamberlain, 1987). However, this process can produce the opposite effect and lead to challenging behaviors (Weld & Evans, 1990) and potentially 'extinction bursts' (Iwata, et al, 1994). A low arousal approach suggests that staff demands and requests should be minimized as a short term goal. From a behavior analytic it perhaps better to pose the question, under what conditions and circumstances should a demand be made? Carers should attempt to be flexible in how they introduce activities to people who present with challenges. The fact that a person is scheduled to go swimming at 10am does not necessarily mean that the activity should take place at that specified time. If the person appears to be upset then the request to go swimming could be repeated gently every 10 or 15 minutes.

Case example 1

Peter was a young person with mental retardation who presented with high frequency aggressive behaviors when requested by staff to get up and go to work. He attended a day care centre which he stated that he 'did not like'. Care staff had attempted a number of strategies to get him out of bed in the morning. These included: shouting at him, offering him incentives, getting him up first in the morning, and alternatively getting him up last, all with limited success. A low arousal approach was adopted (given that he could not stay in bed all day). Every 20 minutes starting from approximately 7.00am, a member of staff would knock on his door and ask him to get up (he would usually swear at them). They were told not to argue with him under any circumstances. These polite requests were repeated calmly every 20 minutes. On average he would usually get up after 90 minutes, although there were still some days where he still refused to get up or became aggressive. On these 'bad days' staff were encouraged to 'give in'. The staff in effect learned to manage his behavior more appropriately

in the short term. They did not change him as a person, merely reduced the frequency and intensity of the requests.

Interpersonal factors influencing arousal

Hightened physiological arousal is often associated with aggression (McDonnell, McEvoy & Dearden, 1994). In cases such as offending behavior the emotion of anger would appear to an important factor (Cullen, 1993). Therapeutic emphasis has tended to focus on self control strategies (Benson, Rice & Miranti, 1986; Black, Cullen, Dickens & Turnbull, 1988). However, these approaches do not address what carers should do when confronted with an angry and highly aroused individual. Nonverbal communication is a powerful medium of communication (Argyle, 1988), avoiding arousing an individual may require an understanding of the arousing nature of these behaviors There are a number interpersonal factors to consider when attempting to avoid increasing the physiological arousal of people with mental retardation.

Eye contact

Direct eye contact is one of the most physiologically arousing phenomena know to man (Mehrabian, 1972) People with autism have been acknowledged to have abnormalities of gaze (Rutter, 1978) Other authors have ascertained that these claims are predominantly a myth (Frith, 1989). Direct eye contact clearly has a communicative function (Argyle, 1988). However, due to its arousing properties it may not be advisable to maintain eye contact with a person who is already aroused and or angry.

Touch

Touch is a sign of warmth and dominance in the animal kingdom (Major & Heslin, 1982). It is also a sign of hostility, (McDonnell & Sturmey, 1993).

Anecdotal evidence does exist about the experience of touch. Temple Grandin (1992) reported that she "craved the feeling of being hugged but then I withdrew because I was overwhelmed by the tidal wave of sensation" (p108). Touch may also have paradoxical effects particularly among people with autism (O'Neill & Jones, 1997). Touch may also facilitate people to communicate more effectively (Donnellan & Leary, 1995). Recent research has suggested that touch can have a positive therapeutic effect on people who present with challenges (Hegarty & Gale, 1996). However, this only applies to a therapeutic environment. While we would not advocate that a person never touches somebody who is angry or upset they should be wary of doing so. Touch has to be perceived by the person as comforting, and this is not necessarily a universal perception.

Personal space

Research has demonstrated that individuals are often wary about people invading their personal space (Hayduk, 1983). Invading a person's space can lead to increased physiological arousal and in some circumstances even assault (Kinzel, 1970). A low arousal approach would suggest that when a person is upset we should be wary about invading their space

Verbal communication

Behavioral difficulties can be viewed as a problem of communication (Durand, 1990. Durand & Carr, 1991). Behavioral problems can be reduced by training people to communicate their needs more clearly (Carr & Durand, 1985). Many people who present with severe challenging behaviors have difficulties in communicating their needs and wishes verbally (Carr, et al, 1994). Although, this is not as problematic as it would first appear, as the majority of all human interaction is predominantly non verbal in nature (Argyle, 1988). People with autism can have marked sensitivity to sounds that can cause distress reactions

(Bettison, 1994). Indeed, Temple Grandin (1994) reported that " loud noises were a problem often feeling like a dentists drill hitting a nerve (p67)". Because receptive and expressive language problems can be fairly common place in individuals with mental retardation, carers should be even more wary about how they speak to people, especially when they appear to be upset. They should be aware of the tone of our voices, speak slowly and calmly and most importantly of all try to avoid raising our voices. When a person speaks loudly this has been shown to be physiologically arousing (Argyle, 1986). Approximately three quarters of people with autism demonstrate echolalic speech (Frith, 1989). There are many suggestions that have been made about how to manage repetitive speech. Recent research has suggested that people can get stuck in speech sequences and find it difficult to move on, or change the subject. (Donnellan & Leary, 1995).

Donnellan & Leary (1995) recommend that a number of strategies can be employed to help a person 'move on'. Whilst those assertions do require further empirical investigation. It would appear that this research questions the notions that challenging behaviors are externally motivated. At times a person may swear, shout or repeat statements and literally not be able to control what they are saying. Donnellan & Hill (1995) recommend a number of strategies to help 'accommodate' people's movement difficulties. These can include a wide variety of strategies involving gestures, touch, rhythm, visualisation, music. On closer inspection many of these suggestions would appear to be short term behavior management rather than behavior treatment strategies (Gardner & Moffatt, 1990).

Challenging belief systems

Staff beliefs about challenging behaviors can have an strong influence on their actions (Hastings, 1987). In a cognitive framework staff 'self rules' that influence their responses to challenging behaviors are equivalent to staff beliefs

about intervening with challenging behaviors. Low arousal approaches involve challenging two core staff beliefs. The first involves a belief that short strategies encourage staff to 'give in'. Second, negative dispositional attributions about behaviors are challenged.

Belief 1: 'It's giving in'

The low arousal approach is often criticised by carers for encouraging them to 'give in' (McDonnell et al, 1998). This usually occurs because there is often a clear difference between managing and changing challenging behaviors. Two recent vignette studies examined staff responses to challenging behaviors and found that staff suggested strategies such as talking calmly, diversion tactics and creating a safe environment (Hastings, 1996; Watts, Reed & Hastings, 1997). These strategies have been argued to be counter habilitative (Hastings, 1996; Watts, et al, 1997).This argument only applies if a long term behavior analytic stance is adopted. These approaches would be consistent from a from a short term reactive perspective and especially a low arousal approach. It has been acknowledged that behavior management strategies can involve positively reinforcing behaviors in an attempt to avoid confrontation (LaVigna & Donnellan, 1986). Changing behaviors can take time and a considerable amount of resources, and whilst it is true that we would all like to change peoples behavior for the better, much day to day work involves managing peoples behavior. Staff tend to respond intermittently to challenging behaviors and tend to be inconsistent when carrying out behavioral programmes often reinforcing challenging behaviors (Hastings & Remington, 1994b). Whilst it is true that applied behavior analysis has led to successes, the majority of people under treatment today were treated '5,10,20 or even 30 years ago' (Reiss & Havercamp, 1997).

Case example 2

A young person with mental retardation was taken out on a day trip that he appeared to enjoy. When the members of staff asked him to return to their car so he could go home he sat on the ground saying 'no'. A crowd began to gather with the young man refusing to move from the spot. Both members of staff knew that he really liked ice cream. One member of staff bought him an ice cream and then asked him to move, which he duly did. After the person returned home the two staff members began to argue. One person felt that giving him an ice cream was 'reinforcing bad behavior'. However, the second member of staff asked the question what would they be reinforcing by grappling and wrestling with the person?

This example illustrates quite neatly that people often fail to understand the distinction between avoiding conflict in the short term and long term behavior change goals. There is often an underlying fear about 'giving in' to demands and requests that is termed 'catastrophic thinking'. In the above example catastrophic thinking would lead to a number of assumptions. First, once the person has learned to get an ice cream in this manner they will sit on the ground every time they go out until they get one (this assumes that the person has control over their behavior). Second, the client will run out of money and the staff will have to use theirs to satisfy this need. Third, the client will become so overweight that they will become ill. Fourth, this strategy will generalise to every aspect of the person's life, he literally won't do anything unless he gets an ice cream. The above stream of thoughts could happen but how likely is this to be the case? The only way to examine assumptions such as these is to gently test them out over time.

The goal of short term management is to keep all people involved safe and to avoid unnecessary conflict. Long term goals involve changing a person's lifestyle and removing the need for the person to present challenges. Thus, to 'give in' occasionally may seem a problem, but in reality it is a step towards developing

a behavior change programme. Low arousal approaches attempt to address carer beliefs and expectations about behaviors.

Belief 2: Challenging negative dispositional attributions

A number of studies suggest that staff attribute causes of challenging behaviors to persons with mental retardation (McDonnell, et al, 1997; Watts, et al, 1997, Hastings, 1996). Weiner, (1980, 1986) proposed an attributional model of helping behavior. In this model perceived controllability and the stability of the attributions are critical in carer decisions to help individuals. Challenging behaviors should be viewed more positively if the behavior is perceived to be outside the persons control and stable (i.e a person had epiliepsy) Whereas a carer may be more angry and negative towards a person if they perceive the person to be in control of their behavior. (Dagnan, Trower & Smith, 1998). In a recent study it was found that staff who made attribution of cause of behaviors to unstable attributions tended to report higher levels of optimism and helping behavior (Sharrock, Day, Qazi & Brewin, 1990). Staff who work with people who present with challenges are more likely to evaluate a person with a challenge more positively than staff who did not work with such behaviors. (Dagnan, Trower, & Smith 1998). Care should be taken when interpreting attributional research. Are attributions are consistent over time ? Are such thinking styles amenable to interventions such as staff training ? Published research has yet to empirically demonstrate that externalising the causes of challenging behaviors may effect staff interactions with people with mental retardation (Hastings, 1997). It would appear to have face validity that staff beliefs need to be addressed if their behavior is to change. It would appear to have face validity that staff attributions need to be addressed if their behavior is to change. _

Case example 3

A person with mental retardation presented with both physically aggressive behaviors and verbal threats on a daily basis. After an initial assessment it was discovered that staff attributed causes to stable dispositional characteristics of the person. The negative attributions were summarised by one member of staff: 'The verbal threats are a methods he (disposition) has always (stable) used to control others. He will never (stable) change. That's' the way he always behaves when he does not get what he wants (controllability)". It was found on an analysis that the person was sensitive to noise, heat and mood swings which were not always under his control. He also had problems controlling his anger. A rationale was presented to his carers which argued that the person was rarely in control of his behaviors. At one year follow up it was found that the frequency of behaviors had not radically altered, however, the majority of staff felt that these same behaviors were less problematic as they understood that there were many times where the person 'just loses control'.

A central theme of low arousal approaches involves providing staff with explanations about challenging behaviors that focus on external \ situational causes of challenging behavior. The information presented here is predominantly anecdotal in nature. It is also clear that some researchers may view internal events as unecessary (Skinner, 1945). Others have taken a more liberal stance advocating that internal events are relevant even if they are only analysed as a form of setting event (Cullen, 1991). It is clear that much more empirical research is needed into the merits of providing alternative explanations of behaviors to assist carers as part of the behavior management process.

Conclusions

It is the contention of this paper that behavior change stratgeies are fairly extensively researched (Emerson, 1993; Scotti, Ujcich, Weigle, Holland & Kirk, 1996) non aversive behavior management technology has had limited research

interest. Non aversive behavior management plans should not be viewed as a panacea, however, further developing this short term technology could potentially make significant changes to both carers and people with mental retardation. The low arousal approaches described in this paper may have some face validity, care should be taken when interpreting their utility as much more controlled research is needed into their efficacy. More emphasis is needed in the future to empirically evaluate behavior management technology. It is concerning that the majority of behavior management advice given to carers would appear to be anecdotal in nature. If the same standards were applied to behavior treatment we would have no empirical basis to design treatment plans Outcome research has demonstrated that a large proportion of challenging behaviors are likely to be long term in nature (Emerson, 1993, Reiss & Havercamp, 1997). It would therefore seem reasonable for researchers to focus on how these behaviors should be managed in the short term. Indeed, for many people who present with challenges a viable behavior management plan may well be a realistic clinical goal in its own right.

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