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Challenging Behaviour and Staff Stress: Exploring the Mechanism of Action

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Abstract

Challenging behaviours have been consistently identified as one of the most stressful aspects of working with people with intellectual disabilities. This thesis aims to build upon our current understanding of the identified relationship between challenging behaviours and staff stress. In the literature review, I shall critically appraise the research that explicitly explores the connection between exposure to challenging behaviours and staffs' stressful responses. It seems that reasonable evidence has been found for an association, but the strength of this relationship remains questionable. As a consequence, a psychological mechanism by which challenging behaviours may have its effects on staff stress is proposed. Specifically, staff self-efficacy in dealing with challenging behaviours is suggested to influence the impact of exposure to challenging behaviours on staff stress, and the research evidence for this proposition is duly considered. The empirical paper seeks to establish the role of self-efficacy using a questionnaire survey. It was hypothesised that: 1) exposure to challenging behaviours and staff self-efficacy in dealing with challenging behaviours would predict stress at work; 2) self-efficacy would either mediate or moderate the impact of challenging behaviours on staff stress. Results suggested that the association between exposure to challenging behaviours and staff stress may not be direct, but there was also no evidence for the role of self-efficacy as a psychological mechanism in explaining this link. A number of measurement and design issues may explain the lack of positive findings in this study. The clinical and research implications of these results are also discussed.

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Abstract

In recent years, there has been an increasing interest in the stressful responses of staff working with people with intellectual disabilities. Research and theoretical developments in this area have tended to focus on the characteristics of the organisations, the characteristics of service users, and the characteristics of staff themselves in explaining these stressful responses. Within this literature, challenging behaviors have been frequently identified as one of the most significant stressors associated with working with people with intellectual disabilities. In this paper, I shall review the inconclusive nature of the empirical literature for the relationship between challenging behavior and staff stress. I shall then go on to identify a framework from the general psychological literature, which suggests a mechanism of action for psychological variables (such as self-efficacy), which may explain the varying nature of staffs' stressful responses to challenging behaviors. In concluding, I shall appraise any supporting evidence for this framework and reflect on the implications this has for future research and clinical practice.

Introduction

Stress at work is a phenomenon of the modern age, and in recent years the issue of staff stress has become increasingly recognized within residential services for people with intellectual disabilities (for a review see Rose, 1995). For example, U.K. surveys have found that one third of staff working in services for people with intellectual disabilities report levels of stress indicative of psychiatric problems (Hatton & Emerson, 1993a; Hatton, Brown, Caine, & Emerson, 1995; Hatton, Rivers, Mason, Mason, Kiernan, et al., 1999). This level of reporting is higher than that seen in general health service staff (27%; Borrill et al., 1996), and almost twice as high as levels of stress reported in the U.K. adult population (16%; Bennett, Dodd, Flatley, Freeth, & Bolling, 1995).

As in organisational psychology (e.g. Arnold, Cooper, & Robertson, 1995; Cooper & Payne, 1988), such high levels of staff stress have been associated with a number of consequences for developing high-quality services for people with intellectual disabilities (see Emerson, Remington, Hatton, & Hastings, 1995). First, existing data suggest that staff experiencing high levels of stress are more likely to quit their jobs or be absent from work (Felce, Lowe, & Beswick, 1993; Hatton & Emerson, 1993b; Zaharia & Baumeister, 1978a, 1978b). Such staff absenteeism and high staff turnover has been noted to have an indirect impact on the quality of life of people with intellectual disabilities, by reducing organizational efficiency, the continuity of care, and the skills and experience of the workforce (Baumeister & Zaharia, 1986; Emerson & Hatton, 1996; George & Baumeister, 1981; Rose & Schelewa-Davies, 1997). In turn, inefficient working/care practices and discontinuities in care have been found to be general predictors of various psychological problems (including behavior problems)

amongst people with intellectual disabilities (Hall, Oliver, & Murphy, 2001; Hastings & Brown, 2000; Hastings & Remington, 1994b).

Second, it has become increasingly clear that there may be a link between the psychological health of staff and their organizational performance (see Rose, Mullan, & Fletcher, 1994). Specifically, the experience of stress has been shown to influence the quality of the care provided by staff and studies have demonstrated that staff reporting high levels of stress are less likely to engage in positive interactions with clients (e.g. Baumeister & Zaharia, 1986; Rose, Jones, & Fletcher, 1998 Rose & Schelewa-Davies, 1997). In some cases, it has even been suggested that the level of support for daily living provided by staff in stressful community settings is similar to that found in institutions (Emerson & Hatton, 1994, 1996). Such detrimental effects are of enormous significance to clinical psychologists specializing in working with people with intellectual disabilities as most of their work is delivered through staff to the client. Therefore, it would seem important to intervene to enable staff to cope more effectively with their work as the psychological health of staff, the quality and consistency of the care they provide, and their ability to engage with services and intervention plans are affected by the level of stress they experience (see Rose, 1995).

The purpose of the present review is to outline the psychological findings that have been discussed within the intellectual disability literature that may help us understand staffs' stressful reactions to their work. I do not intend to provide an exhaustive description; rather, my aim is to develop some predictions that can inform a piece of empirical research. Consequently, the first section of this review summarizes the key themes and issues that have emerged as influencing staff stress, and include a consideration of organisational, individual, and client-related factors. In the following

section, I shall focus more specifically on the impact of challenging behaviors as one of the most significant factors in predicting staff stress, and I will give an overview of the research explorations that have been devoted to the study of this relationship. Next, I shall focus on the need for more research to investigate this potential causal relationship and the extent to which a psychological understanding of staffs' experiences of challenging behavior has been explored. Within this section, I shall also consider a small research literature focusing on the role of coping strategies and self-efficacy as intervening variables in the relationship between challenging behavior and staff stress, and propose reasons for self-efficacy as a more fundamental psychological variable. Finally, I shall discuss possible ways forward for future research and the theoretical and practical implications that accompany such explorations.

Factors Influencing Staff Stress

Given that staff stress is clearly an important issue in services for people with intellectual disabilities, researchers have attempted to determine the factors that have an impact on staffs' experience of stress (see Rose, 1995 for a review). Of the existing research findings, published studies seem to focus on the characteristics of the services or the organizations in which staff work, the characteristics of the staff themselves, and the characteristics of the users of services (i.e. people with intellectual disabilities) as influencing the degree and type of stress experienced by staff. In what follows, each of these factors is considered in turn.

Characteristics of Organizations/Services

The characteristics of organizations or services themselves have been seen as crucial to varying levels of staff stress. Working environments in which there are: excessive workloads (Power & Sharp, 1988; Razza. 1993; Rose, 1993); a lack of job

variety (Allen, Pahl, & Quine, 1990; Hatton & Emerson, 1993a); and low income (Bersani & Heifetz, 1985) have been identified as being more closely associated with higher levels of staff stress. Likewise, career development factors such as a lack of job security (Rose, 1995), lack of promotion prospects (Hatton & Emerson, 1993a), and limited chances for training and skills development (Hatton & Emerson, 1993a) have been implicated in high staff stress.

Potts, Halliday, Plimney, Wright, & Cuthbertson (1995) have also noted how the experience of, and the impact of the organizational structure and climate, such as staff-staff or staff-management communication; the processes for decision making and standard setting; operational policies; and rotating shifts can have an effect on levels of staff stress. Further organizational issues that have been shown to increase staff stress include a hierarchical organizational structure (Hatton & Emerson, 1993a); lack of involvement in organizational decision-making (Dyer & Quine, 1998; Hatton & Emerson, 1993a); and alienation from the organization (Hatton & Emerson, 1993a). There is also some evidence to implicate the role of the wider organizational climate in high levels of staff stress, in terms of dissatisfaction with team climate (Rose & Schelewa-Davies, 1997) and lack of 'person-organization fit' (i.e. mismatches between the 'real' organizational climate as rated by staff and their 'ideal' organizational climate; Hatton, Rivers, Mason, Mason, Emerson, et al., 1999).

In adding to this, a member of staff's role in the organization has also been seen as important in influencing the level of stress experienced, and important factors such as role ambiguity (i.e. being unclear about what the job entails; Blumenthal, Lavender, & Hewson 1998; Dyer & Quine, 1998; Hatton & Emerson, 1993c); role conflict (i.e. receiving conflicting demands; Allen, Pahl, & Quine, 1990; Dyer & Quine, 1998; Hatton

& Emerson, 1993c; Razza, 1993); and conflicting demands between work and home (Hatton, Brown, Caine, & Emerson, 1995; Rose, 1995) have been associated with high levels of staff stress.

Lastly, Hatton & Emerson (1993a) amongst other researchers (e.g. Dyer & Quine, 1998; Hatton, Brown, Caine, & Emerson, 1995; Razza, 1993; Rose, 1995; Rose & Schelewa-Davies, 1997) have documented the importance of social support factors in relation to staff stress. Social support factors such as feedback on job performance (Hatton & Emerson, 1993a) and both practical and emotional support from colleagues, supervisors, and managers (Browner et al., 1987; Hatton, Brown, Caine, & Emerson, 1995; Razza, 1993; Rose, 1995) have been documented as serving protective functions against stress. Ironically, however, other studies have shown colleagues at work to be significant stressors, particularly if the staff team is not functioning well (Elliott & Rose, 1997; Rose & Schelewa-Davies, 1997).

Characteristics Of Staff

The characteristics of staff themselves have been seen as important in contributing to levels of staff stress. Shaddock, Hill, & van Limbeek (1998) tried to clarify the personal characteristics of staff that are associated with levels of stress. In a study of 173 people working in direct-care roles in residential facilities for people with an intellectual disability, they found an association of lower levels of stress with some demographic variables (e.g. the practice of religion), and higher levels of stress with some personal perceptions of the work situation (e.g. lower job satisfaction).

Other staff characteristics that have been associated with high levels of stress include: anxiety and personal ill-health (Browner et al., 1987; Power & Sharp, 1988); younger staff age (Razza, 1993); staff beliefs and emotional reactions to their work

(Bromley & Emerson, 1995); and the types of coping strategies used by staff to deal with workplace problems. In terms of coping, adopting a 'Wishful Thinking' coping style has been demonstrated to be associated with higher levels of stress (Hatton & Emerson, 1995; Thomson, 1987). Similarly, there has been some interest in the effects of staff experience, staff knowledge, and training in predicting stressful responses (see Hastings & Hatton, 1996 for a review, and Hastings, Remington, & Hopper, 1995).

Characteristics Of Service Users

The impact of service user characteristics in relation to staff stress cannot be ignored. Zaharia & Baumeister (1978a, 1978b) have suggested that a major source of staff dissatisfaction may be linked to service users' level of functioning, which, in turn, is related to service users progress (see also Dyer & Quine, 1998). Buckhalt, Marchetti, & Bearden (1990) concluded that service user characteristics, such as level of ability and capacity for social interaction, may affect the level of satisfaction and stress experienced by staff.

Other studies examining the relationship between service user characteristics and staff stress have focused on the association between staff stress and clients who display challenging behaviors (e.g. Bersani & Heifetz, 1985; Bromley & Emerson, 1995; Buckhalt, Marchetti, & Bearden, 1990; Corrigan, 1993; Hatton, Brown, Caine, & Emerson, 1995; Rose, 1993). Challenging behaviors are defined as: 'culturally abnormal behaviors of such intensity, frequency, or duration that the physical safety of the person or others is likely to be placed in serious jeopardy; or behavior which is likely to seriously limit use of, or result in the person being denied access to, ordinary community facilities' (Emerson, 1995; p.9). This includes self-injury, aggression towards others, property destruction, sexually inappropriate behavior, and stereotyped behaviors. Staff

have been found to consistently rate challenging behavior as either the most significant, or one of the most significant sources of stress in their work (see Bersani & Heifetz, 1985; Bromley & Emerson, 1995; Buckhalt, Marchetti, & Bearden, 1990; Corrigan, 1993; Hatton, Brown, Caine, & Emerson, 1995). Moreover, staff perceptions of the demands associated with working with a person with challenging behavior have been shown to be significant predictors of stress (see Dyer & Quine, 1998). Thus, the challenging behaviors exhibited by people with intellectual disabilities can be considered as an important contributory factor in the development and maintenance of staff stress (see Hastings & Brown, 2000; Hastings & Remington, 1994b; Taylor & Carr, 1992).

To recap, recent work on the issue of staff stress in services for people with intellectual disabilities has resulted in the identification of a diverse number of predictive factors. A review by Rose (1995) concluded that differences in organizational practices, characteristics of service-users, coupled with the significant variation in the type of staff surveyed, probably accounted for the variation in levels of stress among staff in services for people with intellectual disabilities. The significance of these findings in planning community services for people with intellectual disabilities cannot be disputed. It could be argued, however, that the research this far represents a rather theoretically basic model of staff stress, one that is so broad ranging that it inevitably becomes practically, clinically, and theoretically redundant. That is, the identification of more and yet more predictors of staff stress does not allow us to prioritize and disentangle the varying influences and implications of the predictors identified. Furthermore, the addition of more distinct yet related concepts (e.g. role ambiguity and role conflict) leads to difficulties in validating any psychological model of staff stress. It

seems that more specific investigations of staff stress in intellectual disability services are required in allowing us to prioritize predictive factors, and develop theoretically and practically relevant psychological models for the future.

One way in which this could be achieved is to consider staff members' perception and appraisal of the stressful events that are central to and essential elements of working with people with intellectual disabilities. As previously outlined, it is widely accepted that working with the demands of challenging behaviors is one of the most common and highly stressful aspects of working with people with intellectual disabilities (Bersani & Heifetz, 1985; Bromley & Emerson, 1995; Buckhalt, Marchetti, & Bearden, 1990; Corrigan, 1993; Hatton, Brown, Caine, & Emerson, 1995). Prevalence rates for challenging behaviors of between 8 percent (Emerson & Bromley, 1995) and 17 percent (Kiernan & Qureshi, 1993) are suggested, and cohort studies show that these behaviors have high rates of persistence over long periods of time (e.g. Leuder, Fraser, & Jeeves, 1984). The impact, prevalence, and chronicity of challenging behaviors has generated a great deal of interest from the behavioral tradition (see Hastings & Remington, 1994a, 1994b; Taylor & Carr, 1992), particularly as to the role that staff responses may play in the development and maintenance of these behaviors (Hastings & Remington, 1994b). Behavioral models of challenging behavior have emphasized the systemic nature of the relationship between the person with challenging behavior and staff responses (e.g., Hastings & Remington, 1994a, 1994b; Taylor & Carr, 1992). Thus, interactions between client challenging behaviors and staff responses may be considered mutually reinforcing and contribute to the long-term maintenance of challenging behavior. Thus, attempting to understand the relationship between challenging behaviors and staff stress may help reveal the contingencies impacting on staff outcomes (including staff stress), as well as

elucidate the mechanisms for the development and maintenance of challenging behaviors.

In summary, challenging behavior can be seen as a central part of working with people with intellectual disabilities and is identified as a significant clinical problem by staff, in terms of its prevalence, chronicity, and impact. It would seem appropriate, therefore, to examine staffs' stressful responses to this particular aspect of their work. As the relationship between client challenging behaviors and staff outcomes (including stress) has been a feature of research for several years, this will be discussed in the following section.

Challenging Behavior and Staff Stress

The question as to whether challenging behavior results in stress in staff is an important one, and has received a significant amount of attention. Evidence for the relationship between challenging behavior and staff stress has been growing and it seems likely that this reflects the seriousness of the impact of working with this client group can have upon staff. The research explorations that have been devoted to the study of this implied causal relationship have been both general and the explicit in nature (see Hastings, in press, for a review) and are discussed in what follows.

General Studies

Three general areas of research have proposed that challenging behavior has an impact upon the level of stress experienced by staff. First, there are a number of studies that have asked staff to rate a wide range of potential sources of stress in their work. In these studies, staff have consistently identified challenging behaviors as the most, or one of the most stressful aspects of their work (Bersani & Heifetz, 1985; Bromley & Emerson, 1995; Buckhalt, Marchetti, & Bearden, 1990; Hatton, Brown, Caine, &

Emerson, 1995).

Second, factor analytic studies of staff ratings have identified clients' challenging behavior as an important dimension of staff stress (Hatton, Rivers, Mason, Mason, Kiernan, Emerson, Alborz, & Reeves, 1999). These data suggest that challenging behaviors have a stressful effect on staff, but they do not necessarily give us evidence of an association between challenging behavior and stress.

A third area of research has explored the associations between challenging behavior and stress by utilizing correlational and regression techniques. Several of these studies have indicated that client challenging behaviors are significantly related to reports of staff stress (e.g. Dyer & Quine, 1998; Hatton, Brown, Caine, & Emerson, 1995). In regression analyses (i.e. where client factors are used alongside organizational factors), however, these associations could just as easily be accounted for by other factors. For example, organizational factors and other client characteristics have been shown to be strongly associated with staff stress, even more so than challenging behaviors (e.g. Dyer & Quine, 1998; Hatton, Emerson, Rivers, Mason, Mason, Swarbrick, Kiernan, Reeves, & Alborz, 1999; Hatton, Rivers, Mason, Mason, Kiernan, Emerson, Alborz, & Reeves, 1999).

In summary, the three general areas of research investigating the relationship between challenging behavior and staff stress reviewed suggest that there is no strong evidence that the impact of working with people with challenging behaviors is paramount in explaining staff stress. At most, the studies cited appear to show that clients' challenging behaviors are an important factor in the development of stressful responses, but cannot provide direct evidence of such an association because of the nature in which this potential causal link has been examined. That is, the studies

reviewed have not included a direct measurement of staff exposure to challenging behavior, neither have they taken account of the temporal precedence of challenging behavior (i.e. that the reverse causal relationship is not possible with staff stress influencing the level of challenging behavior, via caregiving behavior - see Rose, Jones, & Fletcher, 1998 Rose & Schelewa-Davies, 1997).

Explicit Studies

Studies that have focused more explicitly on the relationship between challenging behavior and staff stress have all incorporated a measure of staff exposure to challenging behavior. However, the way in which the research has measured staff exposure to challenging behavior has generated different approaches to the study of this relationship.

One general approach, which focuses more explicitly on the relationship between challenging behavior and staff stress employs rating scales of client challenging behaviors. For example, Chung, Corbett, & Cumella (1995) studied 26 care staff working in four residential units for adults with intellectual disabilities and challenging behavior. Client challenging behaviors were measured using the Aberrant Behavior Checklist (Aman, Singh, Stewart, & Field, 1985) and compared with 'keyworker' stress, which was measured using the Maslach Burnout Inventory ('burnout' is a term coined to describe the stress that arises in occupations in which the goal is to provide aid and service to people in need; Maslach, Jackson, & Leiter, 1986). On the whole, results showed that burnout among staff was high and was predicted by client challenging behaviors.

In a similar and later study, Chung and Corbett (1998) asked staff working in hospital-based bungalows and nursing staff working in community units to assess the degree of challenging behavior of the client for whom they were responsible using the Aberrant Behaviour Checklist (ABC; Aman, Singh, Stewart, & Field, 1985), and their level of stress using the Maslach Burnout Inventory (MBI; Maslach, Jackson, & Leiter, 1986). The results showed that both groups of staff were stressed, but the staff working in the hospital-based units were more stressed (i.e. more emotionally exhausted and experienced more depersonalization towards clients) than the community unit staff.

These studies have provided more direct evidence for the association between challenging behavior and staff stress, but this approach to the measurement of challenging behavior is unlikely to be wholly valid. That is, staff stress is unlikely to be related to just one client's challenging behaviors. Each member of staff will work with more than one client, and will have undoubtedly witnessed or been exposed to other clients challenging behaviors within the same working environment. These criticisms have led to the development of more accurate measures of staff exposure to challenging behaviors in examining the relationship with staff stress.

The second approach attempting to explore the relationship between challenging behavior and staff stress has generally involved staff reporting their own exposure to challenging behaviors. For example, in a longitudinal study, Freeman (1994) asked 71 staff to report the proportion of clients within the environment in which they worked who engaged in challenging behavior. It was found that staff that reported more clients in their home who engaged in challenging behaviors at the first phase of data collection also reported higher levels of stress and more negative attitudes towards clients 12 months later. Thus, this study provided good evidence of an association between staff

ratings of the level of challenging behaviors and staff stress (staff ratings of challenging behavior accounted for 18-21% of the variance in staff stress scores). Unfortunately, however, no consideration was given to the role of other influencing factors (e.g. other client characteristics and organizational variables) in predicting levels of staff stress over time, making the strength of this relationship questionable. In addition, just because staff have reported higher levels of challenging behaviors in their working environment does not mean that the same staff have been exposed to these behaviors.

Hastings and Brown (2002a) tried to address these concerns when they asked 55 special education staff to indicate their perceptions of their exposure to challenging behavior and the severity of the challenging behaviors they had been exposed to (i.e. having witnessed aggression, through to being injured in a violent assault). Hastings and Brown (2002a) found that exposure to challenging behavior predicted staff stress (especially emotional exhaustion and depersonalization) on the Maslach Burnout Inventory (MBI; Maslach et al., 1986). Once again, this indicated a significant association between challenging behavior and staff stress. Furthermore, the association documented was independent of staff coping strategies, but consideration of the association with other relevant staff characteristics (e.g. demographic information) was not explored and neither was temporal precedence established. Thus, the possibility that staff stress causes challenging behavior could not be ruled out.

A third, and more explicit approach to the study of the potential causal link between challenging behavior and staff stress, has been to compare different services (i.e. those with high levels of challenging behaviors with those reporting low levels of challenging behaviors). For example, Jenkins, Rose, and Lovell (1997) compared staff outcomes in services where challenging behavior was reported by managers to be

present and those in which it was not. The authors noted that staff working with people with challenging behavior reported higher levels of anxiety, felt less supported, were less clear about identifying risk situations, and had lower job satisfaction, compared to staff working in settings where there was no history of challenging behavior. Not surprisingly, this also points to an association between challenging behavior and staff stress. Unfortunately, however, random assignment of participants to the two comparison groups was not possible, which makes it difficult to rule out the influence of other factors in this association. Moreover, there was no discussion of temporal precedence and the validity of the categorization of the two groups is dubious as a minimal amount of challenging behaviors were reported in the 'no challenging behavior homes'.

The fourth and final approach to more accurately investigating the connection between challenging behavior and staff stress has been to consider the relationship of staff stress with records of violent assaults. Murray, Sinclair, Kidd, and Quigley (1999) explored the frequency of violent assaults on staff absenteeism in a home for adults with intellectual disabilities and challenging behavior. They found no significant associations between records of violent assaults and records of sick leave. In comparison, Cottle, Kuipers, Murphy, and Oakes (1995) in examining the effect of violent assaults on staff outcomes in a mixed sample of 48 staff working in both residential services for adults with intellectual disabilities and mental health settings, demonstrated that anxiety levels increased by statistically significant levels following violent incidents and returned to baseline within a month. This study provided longitudinal evidence of increases in support staff anxiety as a result of exposure to challenging behavior. However, the conclusions can be questioned, as the sample used was mixed and no comparisons were

made with the anxiety levels of staff that were not the victims of assault. Thus, other factors could have accounted for the elevated levels of anxiety documented.

To sum up, explicit studies investigating the main effect of challenging behavior on staff stress have incorporated a broad range of approaches attempting to measure staff exposure to challenging behavior. Like the general research, this more detailed literature has been amply informed by an understanding of stress as a central part of the caregiving experience when working with people with challenging behavior. The strength of this association, however, has been difficult to ascertain. Methodological and design problems have made it problematic to exclude alternative explanations for the relationship between challenging behavior and staff stress. In addition, few studies have examined the evidence for temporal precedence in this relationship. In a recent review, Hastings (in press) argues that at best, the general and more explicit research data on whether challenging behaviors influence staff stress remain inconclusive and atheoretical in nature. A more theory-driven approach to research may help us better understand how and why challenging behaviors affect staff stress. Let us now consider some of the relevant theoretical issues that may help us conceptualise this relationship further.

The Role of Psychological Variables in the Relationship between Challenging Behavior and Staff Stress

The literature to date has highlighted the significance of staffs' stressful reactions as a possible part of the experience of caring for people with challenging behavior. However, there does seem a need for more research to investigate this potential causal relationship. In the general psychological literature, stress is often conceptualized within a transactional model (see Coyne & Lazarus, 1980; Lazarus, 1966, 1981; Lazarus &

Folkman, 1984a), in which the level of stress experienced and the stressor are seen to have an on-going relationship of reciprocal action, each affecting and in turn being affected by each other. A number of appraisal processes and psychological resources are known to affect this stressor-stress link, and it is suggested that it is such interrelationships that are likely to be crucial in understanding the impact of potential stressors (Lazarus & Launier, 1978).

Appraisal is the cognitive process through which the person evaluates a particular encounter with the environment and considers whether it is relevant to his/her well-being. An event will be evaluated according to the harm, threat, or challenge it presents. Psychological resources (i.e. coping options) are defined as the cognitive and behavioral efforts to master, tolerate, or reduce external and internal demands and conflicts among them. Coping options are used to seek more information, evaluate situations, and either accept them, alter them, or hold the individual back from acting impulsively or in counterproductive ways.

Within this framework (see Lazarus & Launier, 1978), the degree to which a person experiences psychological stress is determined by the relationship between the stressor, individual patterns of appraisal, and the variability of individual coping resources. Such a view explains the considerable variability in responses of individuals' to the same stressful situation, wherein some people become stressed when faced with a particular stressor and others do not. This has important implications for research in the area of stress and challenging behavior. The theory outlined above would suggest that psychological appraisal and resources might play a major role in the adjustment of staff to the stresses of caring for people who present with challenging behaviors. Moreover, similarly to the general psychological literature, these theoretical writings (see Lazarus

& Folkman, 1984a; Lazarus, Averill, & Opton, 1970; Lazarus, Kanner, & Folkman, 1980) offer a framework for answering questions such as why some staff report relatively high levels of stress following exposure to challenging behaviors, while others find this kind of client contact far less stressful. Despite the implications of this, there is little evidence to suggest a large-scale shift towards considering the role that psychological processes may play in the adjustment of staff to the stresses of dealing with challenging behavior. Two areas that have been explored, however, are staff coping strategies and self-efficacy. The remainder of this review will consider the significance of these psychological variables as relevant dimensions in the dynamic relationship between challenging behavior and staff stress.

Coping Strategies

The recent burgeoning of research on coping in the general psychological literature is indicative of a growing conviction that this variable serves an important function in the relation between stressful events and psychological well-being (e.g. Antonovsky, 1979; Coelho, Hamburg, & Adams, 1974; Cohen & Lazarus, 1979; Coyne, Aldwin, & Lazarus, 1981; Lazarus & Folkman, 1984b; Moos, 1977). Lazarus and Folkman (1984a) have argued that the stress an individual experiences is not a simple function of the number of demands placed on that individual, but rather depends on the personal coping resources that are available to meet those demands. A coping resource refers to what the person actually thinks and does in a particular encounter and to how these efforts might change as the encounter unfolds. In general, there are two widely recognized coping resources: the regulation of stressful emotions (emotion-focused coping) and the alteration of the troubled person-environment relationship causing distress (problem-focused coping) (Folkman & Lazarus, 1980). Folkman & Lazarus

(1980) have found both of these functions of coping to be represented in over 98% of stressful encounters. It is writings such as this that have stimulated interest in the process of coping amongst staff working with people with intellectual disabilities and challenging behavior, and specifically, in determining the factors that discriminate successful from unsuccessful adaptation.

The first study conducted in this area was by Hastings (1995), who interviewed 19 care staff working in units for adults with intellectual disabilities and challenging behaviors. Staff in this study reported utilizing three coping strategies for dealing with challenging behaviors: detachment (i.e. mentally 'switching off' when not working); support from other people (i.e. talking through behavioral incidents with other staff and with friends and family); and taking time out (i.e. being able to recover during a shift especially after an incident of aggressive behavior, or using sickness or other leave to regain energy). Unfortunately, this research was descriptive in nature and did not go on to consider how the coping strategies developed by staff might affect their psychological well-being (i.e. levels of stress).

Another study, conducted by Mitchell & Hastings (2001), examined the coping strategies used by 83 staff working in five different community-based services for adults with intellectual disabilities and challenging behavior. Results showed that staff more frequently reported using adaptive coping strategies (i.e. 'problem-focused') than maladaptive ones (i.e. 'emotion-focused') to cope with aggressive challenging behaviors. In addition, factor analysis revealed that three dimensions of coping strategies were often used by staff to cope with challenging behaviors: Adaptive Coping (e.g. planning, using support from others, and taking action to deal with the behaviors); Disengagement Coping (e.g. giving up the attempt to cope, substance use, and engaging in displacement

activities); and Denial Coping (e.g. denying its significance, and use of religious coping behaviors). Regression analyses also showed that staff Disengagement Coping strategies predicted stressful responses (i.e. higher levels of emotional exhaustion and personal accomplishment burnout amongst staff), and that Adaptive Coping strategies were found to be predictive of higher levels of personal accomplishment. Although this research suggests that the way in which staff cope with challenging behaviors is related to their reported level of stress, there was no direct measure of staff exposure to challenging behavior. Therefore, clear analyses of how challenging behaviors related to staff stress were not possible. In addition, the coping measure used (i.e. the COPE; Carver, Scheier, & Weintraub, 1989) may have been too general for staff that work with people with intellectual disabilities and challenging behaviors, and hence may not be representative of the strategies used.

More recently, Hastings and Brown (2002a) conducted a study with 55 special education staff, which included a direct measure of staff exposure to challenging behaviors. They also assessed their level of burnout and staffs' coping strategies for dealing with challenging behaviors. Results showed that special education staff who used 'emotion-focused' strategies to cope with challenging behaviors had higher levels of stress (as measured by the Maslach Burnout Inventory: MBI; Maslach et al., 1986) when exposed to relatively high levels of challenging behaviors alone. Consequently, the authors concluded that coping strategies moderated (Baron & Kenny, 1986) the impact of exposure to challenging behaviors on staff stress (or burnout). Specifically, staff adopting maladaptive (i.e. 'emotion-focused') coping strategies, and who were exposed to relatively high severity challenging behaviors reported the highest levels of emotional exhaustion. Regrettably, the sample used in this study was not entirely representative of

staff that tend to work with people with challenging behaviors, and hence it is difficult to generalize from these findings. Interestingly, however, these results are consistent with research in other areas, such as in families of children with intellectual disabilities. Recent studies on functioning, stress, and coping in families of children with intellectual disabilities (Donenberg & Baker, 1993; Dyson, 1991, 1993; Turnbull, Patterson, Behr, Murphy, Marquis, & Blue-Banning, 1993; Turnball, Summers, Bakus, Bronicki, & Goodfriend, 1986; Wikler, 1986) have also recognised coping as an important variable in explaining the variation in stress responses in parents of children with intellectual disabilities.

To sum up, a small body of research has begun to emerge that suggests the ways in which staff cope with the effects of challenging behavior has an impact on their psychological well-being (i.e. the level of stress they experience). This research has also been characterized by an interest in the actual coping processes that staff use to manage the demands of working with people with intellectual disabilities and challenging behavior (e.g. 'emotion-focused' coping strategies or 'problem-focused' coping strategies). On the whole, the use of Maladaptive or 'emotion-focused' coping strategies seem to have been associated with greater risk of psychological problems in response to challenging behaviors (i.e. higher levels of stress or burnout).

Self-Efficacy

Over the past two decades, the general psychological literature has identified self-efficacy as a crucial variable in predicting psychological well-being (e.g. Bandura, 1977, 1982; Bandura, Adams, Hardy, & Howell, 1980; Biren & Wilson, 1981; Feltz, 1982; Kanfer & Zeiss, 1983). Bandura (1977) suggests that self-efficacy is 'concerned with the motivation, cognitive resources, and courses of action needed to exercise

control over given events' (p.558), and proposes that this explains the complex interplay between beliefs, expectations, perceptions, and attitudes on the one hand, and overt behavior on the other (Bandura, 1977; 1986, 1989). This theory also emphasises that objective measures of an individual's ability to have an effect on events in a given domain may not necessarily be as important as individual's perceptions of their efficacy (Maddux, Sherer, & Rogers, 1982). This implies that changes in behavior or improvement (e.g. in psychological well-being) can be best understood by an increase in a person's sense of self-efficacy (i.e. the belief that they can successfully perform the desired behavior in a given domain).

According to Bandura (1977), self-efficacy expectancies determine the initial decision to perform a behavior, the effort expended, and its persistence in the face of adversity, and thus, has concluded that it is mainly perceived inefficacy to cope with potentially aversive events that makes them anxiety provoking (or leads to stress). For example, in a study of snake phobics, Bandura, Taylor, William, Mefford, & Barchas (1985) discovered that stress levels (measured by levels of catecholamines in the blood) were highest if people were asked to do something they knew they could not, but much lower if asked to do something the experimenters had previously shown them how to master. Thus, it can be assumed that people with a high sense of self-efficacy confidently trust their own abilities in the face of environmental demands; tend to conceptualize problems more as challenges than as threats that are beyond their control; experience less negative emotional arousal when engaged in challenging tasks; and exhibit perseverance when confronted with difficult situations (Jerusalem & Mittag, 1995). In contrast, when individuals possess low self-efficacy, it could be asserted that they are likely to experience significant levels of self-doubt and anxiety when they

encounter adversity, assume more responsibility for failure than success, appraise environmental demands as threatening, avoid challenge, and cope dysfunctionally with problems (Jerusalem & Mittag, 1995). In brief, Bandura's theoretical writings (1977; 1986, 1989) propose that positive self-efficacy is associated with better psychological well-being or less psychological distress, while negative self-efficacy is associated with poorer psychological well-being or more psychological distress.

As in the general research literature, the notion of self-efficacy is also beginning to be considered as a key construct in understanding the responses of staff to challenging behaviors. One study that has explored the significance of self-efficacy in predicting staff psychological well-being was conducted by Hastings & Brown (2002b). In this study, Hastings & Brown (2002b) found that staff beliefs about their self-efficacy in dealing with challenging behaviors made them vulnerable to experiencing negative emotional reactions (i.e. predicted their typical negative emotional reactions to challenging behaviors). This would imply that self-efficacy is an important variable in affecting staff outcomes. Unfortunately however, the exact function of self-efficacy was not explored in this research, making it difficult to ascertain whether self-efficacy was mediating or moderating the impact of challenging behaviors on staff stress. Similar research within the parenting domain (i.e. parents of children with behaviour problems) would suggest that self-efficacy serves both of these functions (see Hastings & Brown, 2002c). This notion is also supported more generally by the research literature on caregivers of children with intellectual disabilities, from which several studies have established self-efficacy as either a crucial variable in predicting parenting stress (e.g. Freidrich, Wilturner, & Cohen, 1985; Frey Greenberg, & Fewell, 1989; Krauss, 1993); or an outcome variable in its own right (i.e. child variables, including child behavior

problems have been found to be predictive of parental self-efficacy; Heller, 1993; Gowen, Johnson-Martin, Goldman, & Appelbaum, 1989; Haldy & Hanzlik, 1990; Stoneman & Crapps, 1988).

In summary, there is some preliminary research that hints at the importance of self-efficacy in predicting the impact of challenging behavior on levels of staff stress. More research is required, however, to investigate the exact that self-efficacy might play in this relationship role (i.e. as a mediator or a moderator).

Mechanism of Action

At the very least, there appears to be growing support for the action of psychological variables in influencing the adjustment of staff to dealing with the stresses of challenging behaviors. Specifically, some preliminary evidence points to variables such as coping strategies and self-efficacy as having some kind of mechanism of action in the relationship between exposure to challenging behaviors and levels of staff stress. This offers a stimulating and heuristic model of the role of psychological processes in the adjustment of staff to working with people with intellectual disabilities and challenging behaviors. Further research would seem essential however, to determine the worth of such variables and the intervening roles they might play. It could be argued that the priority for future research should be placed with self-efficacy rather than coping strategies. This is because self-efficacy can be viewed as a more fundamental psychological phenomenon with greater potential for explaining the relationship between exposure to challenging behavior and staff stress.

From a theoretical point of view, the investigation of the role of self-efficacy offers a more appropriate level at which to study the dynamic relationship between challenging behavior and staff stress. Self-efficacy is primarily conceptualised as a

situation-specific belief, and challenging behaviors could be seen as a particular dimension of intellectual disabilities. Thus, unlike coping strategies, which can be viewed as more a general psychological resource, the effects of self-efficacy as a domain specific psychological variable, are more likely to be observed in the adjustment of staff to working with people with challenging behaviors.

In addition to this, Bandura's (1986) social learning approach to adjustment and maladjustment focuses on self-efficacy as being shaped by experience, including vicarious experience (i.e. watching others) and other peoples' points of view. This theoretical stance would seem to have direct relevance to the working environments that many staff may find themselves in. Therefore, self-efficacy may be a better representation of how psychological processes act in predicting staff outcomes. Such issues do not seem to be as well addressed in the notions of adjustment and maladjustment associated with models of coping and stress.

Moreover, from a practical viewpoint, empirical research by Bandura and his colleagues (see review by Bandura, 1982) has led to a number of self-efficacy treatment procedures aimed at changing target behaviors (e.g. stress responses). All of these interventions operate through a common mechanism: the alteration of personal mastery and success (Bandura, 1977; Mahoney & Arnkoff, 1978). It would seem sensible therefore, that if we already have interventions that might be used to support staff in working with people with challenging behaviors, that any further research on psychological processes should begin here. After all, these interventions could be used or adapted to lead to reductions in stress amongst staff.

Finally, and from a research point of view, self-efficacy has also been determined as a very powerful predictor of behavior (Bandura, 1982; Bandura &

Jourden, 1991). Therefore, studying the powerful impact of self-efficacy on staffs' stressful responses may lead to a better understanding of how behavioural changes are produced in staff working with people with challenging behaviors. In other words, the mechanism of action of this variable (and perhaps other psychological variables) may become clearer. The research conducted so far proposes that self-efficacy may affect the impact of challenging behaviors on staff stress in one of two ways: either as a mediator, or as a moderator (Baron & Kenny, 1986; Hastings & Brown, 2002c).

Insert Figure 1 about here

A mediator functions as a generative mechanism through which the independent variable is able to influence the dependent variable (c.f. Baron & Kenny, 1986; also refer to Figure 1, which introduces a path diagram as a model for depicting this causal chain). The predictor is always causally antecedent to mediator and the central idea of this mechanism of action is that transformational processes internal to the organism mediate the stressor-stress link. That is, mediators explain how external physical events take on internal psychological significance and go on to transform the predictor or input variables in some way. In general, a given variable may be said to function as a mediator when it meets the following conditions (c.f. Baron & Kenny, 1986): a) variations in the levels of the independent variable significantly account for variations in the presumed mediator (path a in Figure 1- path from the independent variable to the mediator); b) variations in the mediator significantly account for variations in the dependent variable (path b in Figure 1- the impact of the mediator path), and c) when paths a and b are controlled for, a previously significant relation between the independent variable and the

dependent variable is no longer significant with the strongest demonstration of mediation occurring when path c is zero (path c in Figure 1- direct path of the independent variable). If the residual path c is not zero, this indicates that a given mediator is indeed potent, but not altogether a sufficient and necessary condition for an effect to occur (i.e. there may be other variables that act as mediating factors).

Thus, in general terms, a mediator speaks as to how or why effects occur. This means that under some circumstances self-efficacy may carry or transform the effect of challenging behavior on staff stress. That is, the effect of exposure to challenging behaviors may be mediated by self-efficacy.

Insert Figure 2 about here

In comparison, a moderator affects the direction and/or strength of the relation between an independent variable and a dependent variable (c.f. Baron & Kenny, 1986). Moreover, it partitions the effect of an independent variable into sub-groups that establish its domains of maximal effectiveness with regard to the dependent variable (refer to Figure 2 where the views of a moderator are demonstrated using a path diagram). Three casual paths feed into the outcome variable in a moderator model (c.f. Baron & Kenny, 1986): the predictor path (Path a), the moderator path (path b), and the interaction or the product of these two variables, predictor X moderator (path c). The moderator hypothesis is supported if the interaction path (path c) is significant. There may be significant main effects from the predictor and the moderator (paths a and b), but these are not conceptually relevant to the moderator hypothesis. In addition to these basic considerations, it is desirable that the moderator variable be uncorrelated with both

the predictor variable and the dependent variable to provide a clearly interpretable interaction term.

Within this framework, it is assumed that the causal relation between two variables changes as a function of the moderator variable (c.f. Baron & Kenny, 1986). That is, a moderator specifies when certain effects will hold. Therefore, under some circumstances, self-efficacy may interact with staffs' exposure to challenging behaviors to affect the level of stress they experience. To be exact, the positivity of the relationship between challenging behavior and staff stress may be considerably stronger in circumstances when a member of staff possesses low self-efficacy than in circumstances where a member of staff possesses high self-efficacy. In this situation, self-efficacy can be seen as moderating the impact of exposure to challenging behaviors on staff stress.

To sum up, theoretical, practical, and research related formulations identify self-efficacy as a good target for further research in investigating the role of psychological processes in the relationship between exposure to challenging behaviors and staff stress. Any future research in this area, however, also needs to concentrate on the nature of the impact of self-efficacy in this relationship, which would allow the development of more relevant models and interventions for staff working with people with intellectual disabilities and challenging behavior.

Discussion

Future Directions

A considerable body of research has emerged in recent years on factors related to stress and caregiving in working with people with intellectual disabilities. It would seem that providing services for people with challenging behaviors has arguably become one of the most stressful factors of this work. The present review has demonstrated,

however, that more specific research is needed in order to understand the effect of client challenging behaviors on staff psychological well-being (measured as staff stress or burnout).

First, any additional data investigating the link between challenging behavior and staff stress needs to address the essentially atheoretical nature of existing research. In other words, more direct tests of the role of psychological variables in the relationship between challenging behaviors and staff stress are needed. Most modern theorists argue that the way we define, appraise, or evaluate a potentially stressful situation plays a significant role in facilitating adaptation, and it is here that future research investigating the relationship between exposure to challenging behaviors and staff stress may be most promising (see Folkman, Lazarus, Dunkel-Schetter, DeLongis, & Gruen, 1986; Folkman, Schaefer, & Lazarus, 1979; Lazarus & Folkman, 1984a; Lazarus & Launier, 1978). The rapidly expanding general literature, and more recent research with parents of children with intellectual disabilities has already revealed self-efficacy as a potent variable for explaining psychological well-being. In addition, the domain-specific significance of this variable has also been recognized in predicting the emotional reactions of staff working with people with intellectual disabilities and challenging behavior (Hastings & Brown, 2002b). Therefore, any new research would do well to concentrate further on the impact of self-efficacy in the relationship between client challenging behaviors and staff stress, as investigations of this nature will facilitate the development of more relevant psychological models of staff stress.

Second, and in addition to examining the potential impact of self-efficacy on levels of staff stress, a research agenda should be designed to consider the mechanism by which self-efficacy has its effect. Evidence so far seems to imply that self-efficacy may

both mediate and/or moderate the impact of challenging behaviors on staff stress (Hastings & Brown, 2002a; Hastings & Brown, 2002b). Further research is needed to explicitly consider the nature of such psychological mechanisms in guiding the refinement of psychological models and interventions.

Third, future research needs to address previous methodological flaws by incorporating: 1) more sophisticated methods of assessing exposure to challenging behaviors; 2) psychological measures most relevant to assessing the impact of challenging behaviors on staff stress; and, 3) participant samples representative of staff working in services for people with intellectual disabilities. Thus, any future attempts at studying the relationship between challenging behaviors and staff stress should directly measure staff exposure to challenging behaviors, taking into account the fact that staff may come into contact with more than one service user who engages in challenging behavior. Such measures should also focus on the severity (Hastings & Brown, 2002a) of these behaviors in analyzing the relationship to levels of staff stress. Additionally, in permitting greater confidence when discussing any significant effects, the measures chosen to examine the impact of challenging behaviors on levels of staff stress should be able to capture the responses of staff working in such settings. Likewise, investigating the responses of more representative samples to the impact of challenging behaviors will mean that results can be more easily generalized.

Implications for Clinical Practice

Training for support staff

The framework presented in the current review would predict that enhancing staffs' level of self-efficacy would reduce their stressful responses to challenging behavior. At a practical level, this would imply that a number of widely used programs

for reducing occupational stress, including stress management programs and cognitive-behavioral techniques (e.g. Mahoney & Arnkoff, 1978; Murphy, 1988) could be used and/or redesigned to enable staff to manage the level of stress/burnout they experience. Such interventions have been successfully used to help staff to identify sources of stress and to cope better with stressful situations by developing beliefs that they can successfully perform particular tasks (Rose, 1997). More specifically, there is also some evidence that such programmes can reduce staff anxiety and depression, and improve staff performance in services for people with intellectual disabilities (Rose, 1997). Thus, it would be acceptable to assume that these techniques could also be useful in reducing the stressful responses of staff working with people with intellectual disabilities and challenging behavior.

Organizational Benefits and Interventions

Interventions designed to individually improve staffs' sense of self-efficacy will not only reduce or eliminate their stress responses. Such interventions should also lead to reduced staff turnover and absence from the workplace. In turn, reduced turnover and absenteeism will result in improved job performance, increased job satisfaction, and the more efficient running of organizations (Rose, 1995). These interventions, however, are unlikely to be entirely sufficient in the maintenance of staffs' high levels of self-efficacy. This section draws on general organizational psychology principles to outline the range of ways in which varying aspects of the organization could be used to improve and maintain staff self-efficacy.

First, altering the structure of the organization to incorporate achievable career development programs (Hatton & Emerson, 1993b; 1993c) would certainly bolster employees' sense of self-efficacy in their work. Second, there is extensive evidence that

younger, more inexperienced staff are most likely to suffer high levels of stress and consequently leave services for people with challenging behaviors (Razza, 1993). As a result, recruitment practices should focus on additional support to young, inexperienced staff in the forms of: induction training; on-going skills training and supervision; as well as the development of their self-efficacy skills. This should reduce the level of stress and turnover experienced in this group. Third, there are aspects of the work environment that are also worthy of consideration with regards to increasing staffs' self-efficacy. Services should recognise the importance of supervisors in bolstering the efficacy of the workforce. It is of central importance that supervisors receive training in leadership and supervision and have allotted times to supervise staff. Efficacy could also be enhanced through regular staff meetings, overlapping staff shifts, staff support networks or mentoring systems, and giving staff a way in which to input into the way in which the organization operates (both at the level of decisions about individuals and at the level of formulating organizational values and policies).

The Analysis of Staff Responses

The current review highlights the importance of extending our understanding of the relationship between challenging behaviors and staff stress to include psychological variables, such as self-efficacy. In practical terms, this suggests that the clinician needs to give full consideration to the factors that might impact on staff responses to challenging behavior, just as we might consider the range of factors that could influence clients' challenging behaviors. This could be achieved through the use of procedures, such as clinical interview, direct observations and self-report measures, all designed to consider an individual member of staff's level of self-efficacy. Information of this kind could then be used to help the clinician to formulate hypotheses about the functions of

staff responses, which in turn could be incorporated into the formulation of client challenging behaviors. The defining feature here is that the determinants of staffs' stressful reactions may be conducive to reducing challenging behaviors themselves (see Hastings & Remington, 1994a; Taylor & Carr, 1992), which, in turn, should reduce the level of stress staff experience.

Designing Interventions for Staff who work with People with Challenging Behavior

At a theoretical level, further research determining the nature of the link between challenging behaviors and staff stress as well as the significance of psychological variables in this relationship will allow clinical psychologists to develop a clearer idea about how best to intervene. For example, if challenging behaviors elicit stressful responses in staff, then it is worth clinicians considering the interventions that they are recommending staff to follow. Many behavioral interventions will expose staff to an increase in the frequency of challenging behaviors (through the extinction burst) in the short-term. Thus, clinicians need to give careful consideration to the impact that this may have on staff and how likely it is that they will then implement and adhere to programs. Interventions that require staff to respond in alternative ways are unlikely to be implemented unless clinicians are proactive and put into place mechanisms that will enable staff to cope with the aversive aspects of their work. If challenging behavior can be seen as a task that can be mastered through self-efficacy interventions then it is less likely to be associated with stressful reactions in staff, and more likely to be associated with improved levels of staff engagement with service users. Thus, it can be assumed that behavioural expertise alone is certainly not sufficient to ensure effective treatment of challenging behaviors, and clinicians should pay attention to implementing individually focused behavioral interventions for people with challenging behaviors in

tandem with efficacy interventions for staff.

Conclusions

The central feature of this review has been to consider staff responses (i.e. burnout/stress) to challenging behavior. The research reviewed would suggest that focusing on the determinants of a psychological mechanism might be a good starting point to understanding this relationship more fully. Such research activity would have important theoretical and practical implications for clinical psychologists working with staff supporting people with intellectual disabilities and challenging behaviors.

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Figure 1 A Mediational Model (c.f. Baron & Kenny, 1986)

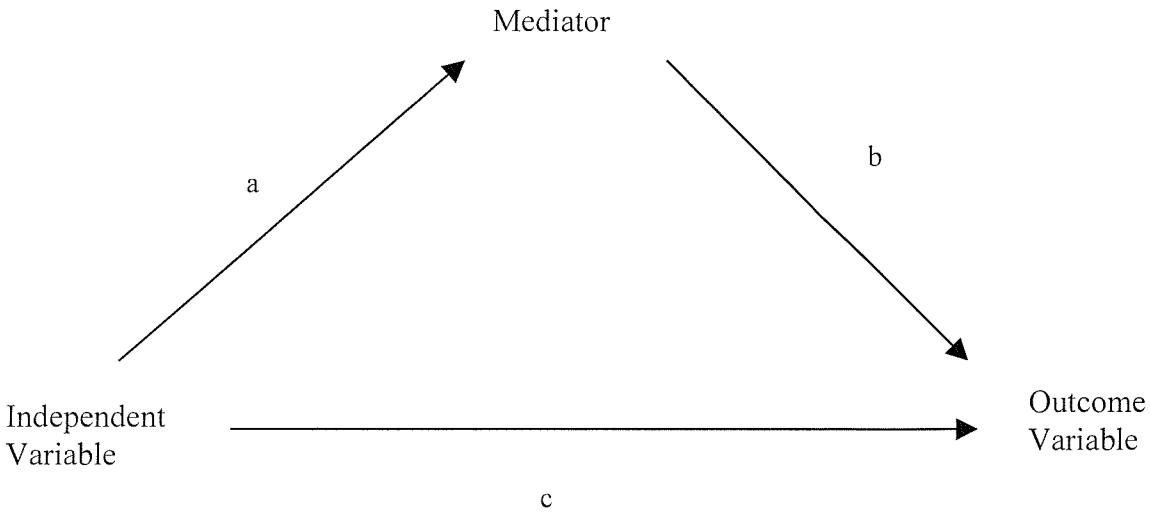
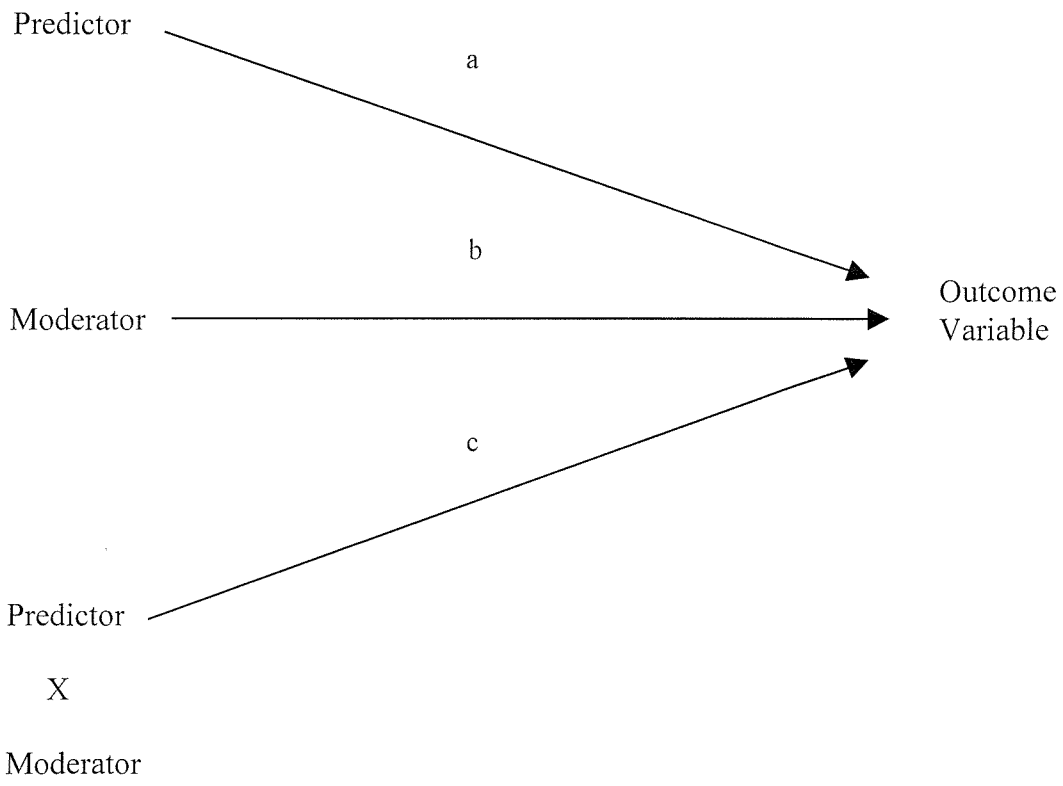

Mediator
a
b
Independent
Variable
Outcome
Variable
c

Figure 2 A Moderator Model (c.f. Baron & Kenny, 1986)


Predictor
a
b
Moderator
Outcome
Variable
c
Predictor
X
Moderator

Empirical Paper

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Challenging Behaviors, Self-Efficacy, and Staff Stress

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Abstract

Staff working with people with mental retardation identify challenging behaviors as an important source of stress. In the present study, 101 staff from five organizations providing community-based services for people with mental retardation completed a questionnaire, including measures of their exposure to challenging behaviors, self-efficacy in dealing with challenging behaviors, and burnout. Regression analyses indicated the absence of a direct association between exposure to challenging behaviors and staff burnout, and no evidence for the role of self-efficacy as either a mediator or a moderator in explaining this link. Relationships were found between burnout domains and gender, number of dependants, residents' level of dependence, anxiety, depression, and generalized self-efficacy. The implications of the lack of strong findings are discussed.

Introduction

The interpersonal context of jobs means that for most people, at some time in their lives, the relationship they have with their work will act as a source of stress (see Arnold, Cooper, & Robertson, 1995; Cooper & Payne, 1988). This has generated an enormous interest in the stress responses of staff working in the caring professions, and within these writings there is now a pronounced literature on staff working with people with mental retardation (see Rose, 1995 for a review). Recent surveys have shown that approximately 30 percent of staff working in services for people with mental retardation report levels of stress indicative of psychiatric problems (e.g. Hatton & Emerson, 1993a; Hatton, Brown, Caine, & Emerson, 1995; Hatton, Rivers, Mason, Mason, Kiernan, Emerson, Alborz, & Reeves, 1999). Moreover, there is evidence to suggest that such high levels of stress can create significant problems for the individual member of staff, the organization in which they work, and the people within their care (see Emerson, Remington, Hatton, & Hastings, 1995). Specifically, high levels of work related stress in services for people with mental retardation have been associated with increased staff turnover rates and absenteeism (Felce, Lowe, & Beswick, 1993; Hatton & Emerson, 1993b; Zaharia & Baumeister, 1978a, 1978b), poor staff performance (Rose & Schelewa-Davies, 1997), and discontinuities in the quality of care offered to people with mental retardation (Baumeister & Zaharia, 1986; Emerson & Hatton, 1996; George & Baumeister, 1981).

Given the wide-ranging and significant impact that staff stress can have, several researchers have attempted to identify the factors associated with high levels of stress in services for people with mental retardation. The factors that have been recognized as salient can generally be grouped into three domains: characteristics of the organization;

characteristics of residents (i.e. people with mental retardation); and characteristics of staff members themselves.

The characteristics of the organization that have been associated with high levels of staff stress include: excessive workloads; limited chances for advancement; role ambiguity; conflicting demands; lack of job variety and security; dissatisfaction with the organizational structure and climate; and a lack of social support (e.g. Bersani & Heifetz, 1985; Blumenthal, Lavendar, & Hewson 1998; Hatton & Emerson, 1993a; Hatton, Brown, Caine, & Emerson, 1995; Razza. 1993; Rose, 1995; Rose & Schelewa-Davies, 1997).

Staff characteristics that have been connected with high levels of stress have included: younger age; illness; heightened levels of anxiety; negative perceptions of the workplace; staff beliefs and reactions; and adopting a 'Wishful Thinking' style of coping (e.g. Bromley & Emerson, 1995; Browner, Ellis, Ford, Silsby, Tampoya, & Yee, 1987; Razza, 1993; Shaddock, Hill, & van Limbeek, 1998; Thomson, 1987).

In the resident domain, level of functioning (Dyer & Quine, 1998; Zaharia & Baumeister, 1978a, 1978b), and more commonly, the challenging behaviors (e.g. self-injury, aggression towards others, property destruction, sexually inappropriate behavior, and stereotyped behaviors) exhibited by people with mental retardation have been recognized as significant sources of stress (e.g. Bersani & Heifetz, 1985; Bromley & Emerson, 1995; Buckhalt, Marchetti, & Bearden, 1990; Hatton, Brown, Caine, & Emerson, 1995). A growing number of studies have suggested that resident challenging behaviors are significant predictors of staff stress (e.g. Dyer & Quine, 1998; Hatton, Brown, Caine, & Emerson, 1995), and have identified them as an important dimension of staff stress in factor analytic studies (e.g. Hatton, Rivers, Mason, Mason, Kiernan,

Emerson, Alborz, & Reeves, 1999).

Given the centrality which working with people with challenging behaviors has to levels of staff stress, a number of attempts have been made to test this relationship more directly. First, some studies (e.g. Chung & Corbett, 1998; Chung, Corbett, & Cumella, 1995) have asked staff to assess the degree of challenging behavior of the resident for whom they were responsible, and compared scores on this rating scale with staffs' levels of stress. Data from these studies has shown burnout to be high and predicted by client challenging behaviors.

Second, comparisons have been made between the stress experienced by staff working in services with high levels of challenging behaviors with that experienced by staff working in services with low levels of challenging behaviors (e.g. Jenkins, Rose, and Lovell, 1997). Results have shown that staff working with people with high levels of challenging behaviors report more anxiety in comparison to staff working in settings where there are lower levels of such behaviors.

Third, a few investigations have asked staff to report their own exposure to challenging behaviors in relating this to their levels of stress (e.g. Freeman, 1994; Hastings & Brown, 2002a). Freeman (1994) found that staff who reported greater numbers of clients in their home who engaged in challenging behaviors, were more likely to report higher levels of stress. Using a similar approach, Hastings & Brown (2002a) also found that exposure to challenging behaviors significantly predicted levels of staff stress.

Finally, a further approach to the explicit analysis of the relationship between challenging behaviors and staff stress has been to analyze records of violent assaults (e.g. Cottle, Kuipers, Murphy, and Oakes, 1995; Murray, Sinclair, Kidd, and Quigley

1999). Associations between records of violent assaults and staff outcomes (including levels of anxiety and absenteeism) have been found in some but not all of such studies.

While these studies hold promise for demonstrating a causal relationship between challenging behavior and staff stress, the strength of the association has been difficult to ascertain. Review of the literature demonstrates two main problems.

First, the methods used to identify staff exposure to challenging behaviors may not reflect actual exposure. For example, the impact of challenging behaviors is unlikely to be associated with just one resident (as in Chung, Corbett, & Cumella, 1995; Chung & Corbett, 1998). Staff will have witnessed or been exposed to other residents' challenging behaviors, and will also care for more than one resident within the same working environment. In addition, as challenging behaviors are likely to be present in service settings that do not label them in this way, the validity of using categories (i.e. high Vs low) in the measurement of exposure to challenging behaviors is questionable (see Jenkins, Rose, & Lovell, 1997). Furthermore, it is also unlikely that all incidents of challenging behavior will be recorded (see Cottle et al., 1995; Murray, Sinclair, Kidd, & Quigley, 1999). Thus, studies relying on records of violent assaults are problematic.

The most useful approach utilized so far in the direct measurement of challenging behaviors was that conducted by Hastings and Brown (2002a). Hastings and Brown (2002a) asked staff to indicate their perceptions of their exposure to challenging behavior and the severity of the challenging behaviors they had been exposed to. Unfortunately, the unrepresentativeness of the sample used, and the lack of consideration given to the association of stress with other staff characteristics (e.g. demographic information) make it difficult to draw any firm conclusions about the significant associations found in this study.

The second problem with research exploring the impact of challenging behavior on staff stress is that there has been no reflection on the psychological processes that may affect this potentially positive relationship. Many modern views of stress discard the simplistic notion of cause and effect and choose instead to underline stress as an interpersonal perceptual phenomenon rooted in psychological processes (see Coyne & Lazarus, 1980; Lazarus, 1966, 1981; Lazarus & Folkman, 1984; Lazarus & Launier, 1978).

A recent study by Hastings and Brown (2002b) suggests that self-efficacy may be an important variable in determining the adjustment of staff to dealing with the stresses of challenging behavior. The self-efficacy construct, postulated by Bandura (1977; 1986, 1989), refers to the perception of one's skills in a given domain, and challenging behaviors can be seen as a particular dimension of mental retardation. Hastings and Brown (2002b) found that staff beliefs about their self-efficacy in dealing with challenging behaviors made them vulnerable to experiencing negative emotional reactions (i.e. predicted their typical negative emotional reactions to challenging behaviors). Unfortunately, this study did not consider the exact function that self-efficacy may play in the relationship between challenging behavior and such staff outcomes. However, similar research within the parenting domain (i.e. parents of children with behavior problems) would suggest that self-efficacy will act either as a mediator or a moderator in this relationship (see Hastings & Brown, 2002c). This has also been supported more generally by several studies on caregivers of children with mental retardation, which have established self-efficacy as either a crucial variable in predicting parenting stress (e.g. Freidrich, Wilturner, & Cohen, 1985; Frey Greenberg, & Fewell, 1989; Krauss, 1993); or an outcome variable in its own right (i.e. child behavior

problems have been found to be predictive of parental self-efficacy; Gowen, Johnson-Martin, Goldman, & Appelbaum, 1989; Haldy & Hanzlik, 1990; Heller, 1993; Stoneman & Crapps, 1988).

The present study was designed to address two main issues: (a) the direct measurement of exposure to challenging behaviors within a more typical sample of staff working with people with mental retardation, while examining the relationship to levels of staff stress (measured as burnout); and (b) the exploration of the mechanism of action of self-efficacy (specific to challenging behaviors) in the relationship between challenging behaviors and staff burnout having controlled for other personal factors which may contribute to the experience of stress. Evidence has demonstrated that various demographic factors, general emotional distress, and generalized self-efficacy may influence the level of burnout experienced (e.g. Bandura, Adams, Hardy, & Howell, 1980; Power & Sharp, 1988; Shaddock, Hill, & van Limbeek, 1998; Razza, 1993).

Based on previous research (Hastings & Brown, 2002b) and the fact that self-efficacy is often a positive predictor of psychological well being (e.g. Freidrich, Wilturner, & Cohen, 1985; Frey, Greenberg, & Fewell, 1989; Hastings & Brown, 2002b; Krauss, 1993), there are a number of predictions that can be made:

1) Staff exposure to challenging behaviors and their level of self-efficacy should predict the level of burnout experienced by staff. Specifically, staff exposure to challenging behaviors and low self-efficacy should be positive predictors of burnout (especially emotional exhaustion and depersonalization as these aspects of burnout are more directly associated with resident contact).

2) Self-efficacy in dealing with challenging behaviors may either mediate and/or moderate the impact of challenging behaviors on staff burnout.

Method

Participants

Staff from 29 community residences encompassed within five different private organizations providing community-based residential homes for adults with mental retardation participated in this research. The 29 community homes that participated comprised 32% of the total number of homes within the five service organizations. All of the participating organizations catered for people over the age of 18 with mild, moderate, and severe mental retardation, and provided access to day-care facilities. Two of the organizations received dedicated input from psychologists who provided support to staff to deal with challenging behaviors. The mean number of staff working in each home was 13.70 (SD = 7.03), and the mean number of residents was 8.13 (SD = 5.03). Further information about the individual homes involved in the study was obtained using a brief questionnaire, which was completed by the manager of each community residence (refer to Appendix 2). The information obtained about the participating residential homes indicated that they were fairly typical of community services for people with mental retardation within the UK (Emerson & Hatton, 1996). The specific characteristics of the participating homes are summarized in Table 1.

Insert Table 1 about here

Staff were selected for inclusion in the study if:

1) Home managers agreed to participate in the research, and reported (both verbally and in response to a manager's questionnaire - see Appendix 2) at least one resident in their home that engaged in an aggressive challenging behavior (as in Jenkins, Rose, & Lovell 1997). For the purposes of the present study, this was topographically defined as aggression toward self; physical aggression toward staff/others; or property destruction. Non-aggressive challenging behaviors were not included in the criteria for this study as previous research has indicated that these behaviors tend to be less clearly defined and do not elicit strong responses from staff (see Hastings, 1995; Hastings & Remington, 1995). Staff working in homes where there were no residents who engaged in challenging behavior were not invited to participate in this study.
2) They spent the majority of their working day in activities that involved the daily care and supervision of residents (as in Hauber & Bruininks, 1986), and have been exposed to (witnessed, or been the target of) challenging behavior as measured by the Exposure to Aggressive Challenging Behavior Scale (refer to Appendix 4; Hastings & Brown, 2002a). Staff members with purely managerial or administrative responsibilities were not included in the study. Every staff member who returned a questionnaire confirmed that they had been exposed to some level of aggressive challenging behaviors in the preceding month.

One hundred and one staff participated in the research, comprising 31 males and 70 females. The staff group had an average age of 33.65 years (SD = 10.37), and their modal educational background was to the level of GCSE/'O' levels or an equivalent qualification (i.e. high school leaving certificates). Almost one third of staff (32.7%) had

a professional qualification relevant to working with people with mental retardation (e.g. psychology, social work, nursing, education, or other professions allied to medicine). The remaining staff (67.3 %) were unqualified. Seventy eight percent of staff had attended training courses relevant to working with people with challenging behavior. Most commonly, this took the form of short-courses (i.e. 1-2 days) on breakaway techniques, restraint procedures, the management of aggression, and understanding the functions of challenging behavior. Overall, the respondents were fairly typical of staff working in UK services for people with mental retardation (see Hatton, Brown, Caine, & Emerson, 1995). Their average age was in the thirties, they were largely female, and almost half had children or dependants. Further characteristics of the sample are summarized in Table 2.

Insert Table 2 about here

Measures

The main data were gathered using a self-report questionnaire consisting of 7 sections (refer to Appendix 5). These sections principally related to demographic information; confirmation of exposure to aggressive challenging behaviors; and data about the experience of working with people with mental retardation that present with challenging behaviors. A smaller self-selecting sample of participants (N = 14) from four of the participating organizations also completed a shorter version of the self-report questionnaire. This assessed the reliability of some of the measures used over a 3-4 week period (refer to Appendix 6). The sections of the self-report measures are described in more detail below.

Demographic Data. This included gender, age, marital status, number of dependants, highest educational achievement, job title, length of experience (both in the current service/residential home and in mental retardation services as a whole), hours worked, qualifications relevant to caring for people with mental retardation, and whether they had participated in any training relevant to the management of residents' challenging behaviors (see Participants).

Exposure to Aggressive Challenging Behaviors. Participants were asked to report their exposure to (witnessing, or being the target of) aggressive challenging behaviors during the preceding month using the Exposure to Severe Challenging Behaviors Scale (Hastings & Brown, 2002a). This scale consists of four domains. In the first domain, staff were asked whether or not they had been the target of physical aggression (defined using examples: kicking, biting, scratching, punching) resulting in injury to them (e.g. bruising, bleeding, or other tissue damage), physical aggression not resulting in injury to them, and/or verbal aggression (defined using examples: shouting or screaming, verbal abuse, threats). In the second domain, staff were asked whether they had witnessed the same three categories of behavior directed at other residents. In the third domain, staff indicated whether or not they had witnessed self-injury (defined using examples - face slapping, banging head against body or objects, scratching or biting self) either resulting or not resulting in injury to the person themselves (defined as bruising, bleeding, or other tissue damage). In the fourth domain, staff were asked whether or not they had witnessed aggression toward objects (defined using examples - e.g., banging or kicking furniture or other property, pulling curtains, throwing objects) either resulting or not resulting in damage to property.

The most severe behavior experienced/witnessed in each domain was scored (giving two scores ranging from 0 - 3 for the physical aggression domains, and two scores ranging from 0 - 2 for the self-injury and aggression towards property domains). This gave an Exposure to Severe Challenging Behaviors score for each participant. Due to the fact that these items used different scales (0-2, or 0-3), scores on the four items were then z-transformed and summed to produce a total Exposure to Severe Challenging Behaviors score.

The Exposure to Severe Challenging Behaviors Scale (Hastings & Brown, 2002a) has been found to have a reasonable level of internal consistency in other studies (Cronbach's alpha = .65; Hastings & Brown, 2002a), and a Cronbach's alpha coefficient of .74 was obtained in the present study. In addition, based on a sub-sample of participants (N = 14), the present study also suggested that the scale has good test-retest reliability over a 3-4 week period (test-retest coefficient = .80).

Residents' Level of Dependence. A measure of participants' perceptions of the level of functioning of the residents within their care was constructed using the adaptive behavior skills identified in the A.A.M.R. (American Association of Mental Retardation) definition of mental retardation (Luckasson et al., 1992). Residents' level of functioning has been suggested to be related to challenging behaviors and has also been indicated to be a major source of stress for staff (Buckhalt, Marchetti, & Bearden 1990; Dyer & Quine, 1998; Zaharia & Baumeister, 1978a, 1978b) Thus, level of dependence was measured in an attempt to control for any effect on the levels of burnout and any confounding effect on the impact of challenging behaviors. The constructed measure asked participants to rate the proportion of residents in their particular home that had difficulties in defined areas (namely: communication, home living, social skills,

community use, self-direction, health and safety, functional academics, leisure, and work) on a 4-point scale ranging from 0 (none of them) to 3 (all of them). Responses on these nine items were then summed to produce an overall score of residents' level of dependence. A Cronbach's alpha of .91 was obtained for this measure and it was also demonstrated to be relatively stable (test-retest coefficient = .79) with a sub-sample of participants (N = 14) over a 3-4 week period.

Self-Efficacy Related to Dealing with Challenging Behaviors - This section contained five items relating to feelings of confidence, control, satisfaction, self-perceptions of impact on challenging behaviors, and difficulties in dealing with challenging behaviors (Hastings & Brown, 2002b, 2002c). Each item was rated on a seven-point scale, and a total score was derived by summing the ratings on the five items. In previous studies, this scale has been found to have an excellent level of internal consistency (Cronbach's alpha = .94; Hastings & Brown, 2002b), and it has also been amended for use in further research (Pit-ten Cate, Kennedy, & Stevenson, 2002) with a demonstrated alpha value also in excess of .85. In the present study, a Cronbach's alpha coefficient of .75 was obtained and a test-retest coefficient of .84 was demonstrated. These data suggest that reliability was also good in the present sample.

Generalized Self-Efficacy. The Generalized Self-efficacy sub-scale of a self-efficacy scale constructed by Sherer et al. (1982) was used. The goal here was for each participant to report a measure of self-efficacy not tied to a specific situation (i.e. dealing with challenging behaviors) in controlling for general experiences of personal mastery that may contribute to efficacy expectancies (Bandura, 1977). The Generalized Self-efficacy sub-scale (Sherer et al., 1982) consisted of 17 items scored on a 4-point scale ranging from 1 (Strongly Disagree) to 4 (Strongly Agree). Eleven of these items were

reversed for scoring. A total generalized self-efficacy score was obtained for each participant by summing his or her response to each of these items. Within the present study, the Generalized Self-efficacy sub-scale was demonstrated to have good internal consistency (Cronbach's alpha coefficient = .87) and good test-retest reliability over a period of 3-4 weeks (test-retest coefficient = .84).

Burnout/Stress. The human services version of the Maslach Burnout Inventory (MBI-HSS; Maslach, Jackson, & Leiter, 1986) was used as the measure of staff stress in the present study. This was chosen in preference to other measures of stress mainly because the MBI-HSS specifically addresses the feelings of staff working in human service settings. Using a seven-point scale ranging from 'never' to 'every day', staff rated 22 statements addressing their feelings about their job. These feelings contributed to three sub-scale scores: Emotional Exhaustion (feelings of being emotionally overextended and exhausted by one's work - e.g., "I feel emotionally drained from my work"); Depersonalization (a measure of unfeeling and impersonal responses towards residents' - e.g., "I treat some residents as if they were impersonal objects"); and lack of Personal Accomplishment (feelings of competence and successful achievements in one's work. - e.g. "I have accomplished many worthwhile things in this job"). Burnout is defined as the presence of high scores on the Emotional Exhaustion and Depersonalization sub-scales, and the presence of low scores on the Personal Accomplishment sub-scale. These three burnout dimensions have been extensively studied psychometrically and have been confirmed to have good validity, reliability, and high levels of internal consistency (see Maslach, 1982; 1998).

Anxiety/Depression. The general psychological distress of participants was measured using the Hospital Anxiety and Depression Scale (HAD scale - Zigmond & Snaith, 1983). Although originally developed to detect anxiety and depression in clinical populations, this measure has been used extensively in community research in measuring the severity of emotional disorder (Zigmond & Snaith, 1983). A measure of general psychological distress was included in order to control for any underlying psychiatric symptoms, which may contribute to participants' level of work-related stress. The HAD scale consists of 14 items, with seven assessing depression (e.g., "I feel as if I am slowed down") and seven assessing anxiety (e.g., "I get sudden feelings of panic"). All items on the HAD scale are rated on a four-point scale, ranging from absence of a symptom or the presence of positive features (scoring 0) to maximal symptomatology or the absence of positive features (scoring 3). Therefore, it is assumed that the higher the participant's score the more severe the level of anxiety or depression they are experiencing. The HAD scale is known to have good validity and reliability for assessing anxiety and depression in many settings (Zigmond & Snaith, 1983).

Home Manager Questionnaire. Further information about the community residences involved in the study was obtained using a brief questionnaire completed by the managers of each of the participating homes (see Appendix 2 for a copy and Participants above for a summary of the data obtained). Information gathered included: the number of residents; the number of residents that engaged in aggressive challenging behaviors; the proportion of residents that have significant problems with adaptive skills; the number of residents with behavioral programs; the number of residents with behavioral programs introduced in the last six months; the number of staff; the number of staff involved in the daily care and supervision of residents; and the range of qualifications

held by staff.

Procedure

This research comprised two data collection phases. In Phase I, a large-scale survey inviting staff to participate in the research was conducted. The method by which staff were invited to participate varied across the five organizations. Four of the participating services preferred their home managers to distribute the questionnaires to staff that met the criteria for inclusion in the study. All staff in participating homes in these services returned their completed questionnaires in a prepaid envelope. In the remaining service, some home managers preferred to distribute questionnaires to the staff that met the criteria for inclusion themselves, whereas other home managers requested an introductory meeting at which questionnaires were distributed to applicable staff by the researcher. Those staff that received their questionnaire from their home manager returned it in a prepaid envelope, whereas the staff that completed their questionnaire at an introductory meeting either returned their questionnaire to the researcher in person or in a prepaid envelope after the visit.

A consent form (see Appendix 3) and a questionnaire (see Appendix 5) were given to all participants. All participating staff also received a debriefing statement (refer to Appendix 7). In total, 275 questionnaires were distributed and 105 were returned (response rate = 38%). Of these, four questionnaires were excluded, as one or more major sections of the questionnaire were incomplete. Despite home managers being asked to issue a number of verbal reminders to all participating staff, the response rate was still somewhat lower than those obtained in similar surveys (e.g., Stenfert-Kroese & Fleming, 1992 - 60%; Rose, 1993 - 79% in small group homes and 64% in community units, although Hatton & Emerson, 1995 report variation in response rates from 22 to

75%). However, the demographic information gathered for respondents (See Participants and refer to Table 2) indicated that they were fairly typical of staff working in UK services for people with mental retardation (see Hatton, Brown, Caine, & Emerson, 1995). No data were available on non-responders.

All participants at Phase I were invited to identify themselves (e.g. using their name, initials, or some other identifying characteristic like their favorite football team) in order to participate in Phase II (the reliability phase) of the study three to four weeks later. Phase II of the study re-administered some of the measures used in Phase I (refer to Appendices 3, 6, and 7). The majority of the sample (N = 62) completed Phase I anonymously. A smaller sub-sample (N = 39) of staff from 4 of the participating organizations identified themselves at Phase I thereby indicating that they would be willing to participate in Phase II (the reliability phase). Of these respondents, 25 questionnaires had to be discarded as their responses either fell outside the time-scale of the reliability analysis (i.e. 3-4 weeks time lapse) or could not be matched with a questionnaire completed at Phase I. The 14 participants remaining constituted a sub-sample of the final 101 participants at Phase I.

Results

Four kinds of analyses were conducted on the present data. First, descriptive comparisons were made between the level of burnout reported in the present sample and that described in other UK surveys. Second, information about the suitability of the data for parametric statistical analysis was generated using one-sample Kolmogorov-Smirnov tests. Third, in attempting to control for associations in further analyses, independent samples t-tests or Pearson's correlation coefficients were used to establish any associations between the data gathered and burnout domains. Fourth, hierarchical

regression procedures were used to investigate whether exposure to challenging behaviors and self-efficacy acted as predictors of burnout, and determined the potential mediating and moderating effects of self-efficacy on the relationship between exposure to challenging behaviors and staff burnout.

The level of burnout reported by staff in the present study (refer to Table 3) did not seem to differ from reports of burnout amongst other community-based staff in the U.K. (Blumenthal, Lavendar, & Hewson, 1998; Mitchell and Hastings, 2001). This means that the level of burnout experienced by staff in the present sample is likely to be representative of levels of burnout experienced by staff working in services for people with mental retardation in the U.K.

Insert Table 3 about here

Comparisons of the distribution of scores on the burnout domains (i.e. emotional exhaustion, depersonalization, and personal accomplishment) to a normal distribution were made using one-sample Kolmogorov-Smirnov tests. Only Depersonalization sub-scale scores were found to be significantly different from normal (Kolmogorov-Smirnov $z = 2.085$, $p = .000$). Scores on the Depersonalization sub-scale were consequently transformed for the main analyses (see below).

Associations between demographic variables, service related data, control variables (i.e. residents' level of dependence, anxiety, depression, and generalized self-efficacy) and the three burnout domains were explored in order to identify variables for inclusion in further analyses. Associations with gender; the presence of a spouse/partner; job title; qualifications relevant to working with people with mental retardation; training

relevant to working with people with challenging behavior; and the introduction of behavioral programs in the workplace in the last six months were investigated using independent sample t-tests. Associations with age; number of dependants; highest educational achievement; hours worked; length of service in current residential home; length of service in organizations for people with mental retardation; the number of residents with behavioral programs; the number of residents in the home; residents' level of dependence; level of anxiety; level of depression; and level of generalized self-efficacy were assessed using Pearson's correlation coefficients. Emotional Exhaustion was found to be negatively associated with the number of dependants ($r\ (100) = -.277$, $p < .005$), and a significant effect was found for gender ($t\ (99) = 3.92$, $p < .000$), to the extent that men were found to be more emotionally exhausted than women. Higher levels of Depersonalization were negatively related to residents' level of dependence ($r\ (101) = -.233$, $p < .05$), and the introduction of behavioral programs in the last six months ($t\ (77) = -3.48$, $p < .001$). Lastly, Personal Accomplishment was positively related to residents' level of dependence ($r\ (101) = .277$, $p < .05$), and negatively associated with length of service in the current working environment ($r\ (100) = -.252$, $p < .01$). All of these demographic variables were subsequently included in the appropriate analyses.

The main statistical analysis focused on hierarchical regression procedures for each of the burnout domains. Hierarchical regression models were used to permit the exploration of the individual contributions of each of the independent variables. In each case, the predictors included in the regression model were: 1) demographic variables that had significant associations with the burnout domain; 2) control variables (i.e. residents' level of dependence, generalized self-efficacy, anxiety, and depression); 3) exposure to

challenging behaviors; 4) self-efficacy in dealing with challenging behaviors; 5) a product term representing the interaction of exposure to challenging behaviors and self-efficacy in dealing with challenging behaviors.

The interaction term at Step 5 was generated from the product of z-transformed total scores on the Exposure to Aggressive Challenging Behaviors Scale and the Self-efficacy related to Dealing with Challenging Behaviors Scale. Consideration of the variables entered up to Step 4 enabled the predictive significance of exposure to challenging behaviors and self-efficacy in dealing with challenging behaviors to be determined.

In exploring evidence for self-efficacy in dealing with challenging behaviors acting as a mediator of the effect of exposure to challenging behaviors on the burnout domains, one would initially expect to see exposure to challenging behavior making a significant and independent contribution to the prediction of burnout scores when it is entered into the regression equation at Step 3 (c.f. Baron & Kenny, 1986). However, once self-efficacy in dealing with challenging behaviors is entered into the regression equation at Step 4, one also would expect to see a reduction in the contribution made by exposure to challenging behavior in predicting burnout scores (c.f. Baron & Kenny, 1986).

In examining the effect of self-efficacy in dealing with challenging behaviors as a moderator of the impact of challenging behaviors on burnout scores, one would expect the product interaction term to be significant when entered in the regression equations at Step 5 (c.f. Baron & Kenny, 1986). The interaction term should also explain a significant proportion of the variance over and above that accounted for by the main effects of its two contributing variables entered at Steps 3 and 4 (c.f. Baron & Kenny,

1986).

Three hierarchical regression analyses were conducted for each of the burnout domains (refer to Tables 4-6). In addition, given that the scores on the Depersonalization sub-scale were not normally distributed, scores on this sub-scale were transformed into present or absent, and a logistic regression for transformed scores was conducted in the same way. The pattern of results from the logistic regression was very similar to the regression conducted using the raw data; therefore, the results are not reported here.

Insert Tables 4 -6 about here

At Step 4 of each of the hierarchical regression analyses, there was no evidence for exposure to challenging behaviors or self-efficacy in dealing with challenging behaviors acting as predictors of burnout. Moreover, no significant results were found at Step 5 for any of the hierarchical regression models. Thus, there was no indication that self-efficacy in dealing with challenging behaviors acted as either a mediator or a moderator in the relationship between exposure to challenging behaviors and staff burnout.

A number of predictors of burnout were found from results at Step 2 of the hierarchical regression analyses. Specifically, number of dependants was found to be a negative predictor of Emotional Exhaustion, whilst levels of anxiety and depression were demonstrated to be positive predictors of Emotional Exhaustion. Gender was also found to be a significant predictor of scores on the Emotional Exhaustion sub-scale, in so far as men were shown to be more emotionally exhausted than women. Within the analysis of Personal Accomplishment, evidence was found for residents' perceived level

of dependence and generalized self-efficacy as positive predictors, and length of service in the current working environment as a negative predictor. Lastly, Depersonalisation was positively predicted by level of depression, whilst also being negatively predicted by residents' perceived level of dependence.

Discussion

The results of the present study failed to confirm the role of staff exposure to challenging behaviors and low self-efficacy as positive predictors of burnout. This suggests that the association between exposure to challenging behaviours and staff stress may not be direct. No evidence was found, however, for the role of self-efficacy in dealing with challenging behaviors acting a mediator in explaining this link. Furthermore, the present data did not support self-efficacy as a moderator variable in the relationship between exposure to challenging behaviors and staff burnout.

In spite of these findings, some significant predictive relationships were highlighted between the burnout domains and demographic/control variables. Most notably, level of anxiety and generalized self-efficacy positively predicted Emotional Exhaustion and Personal Accomplishment respectively. In addition, level of depression was shown to positively predict scores on the Emotional Exhaustion and Depersonalisation sub-scales of the MBI-HSS. Lastly, residents' perceived level of dependence was shown to be positively predictive of feelings of Personal Accomplishment, whilst also negatively predicting attitudes of Depersonalisation. Before going on to discuss the theoretical and practical significance of the present findings, a number of qualifications should be considered.

First, a number of observations can be made about the measures used in this study. To begin with, there are a number of conceptual problems surrounding the measure of staff exposure to aggressive challenging behaviors (Hasting & Brown, 2002a). That is, there are few data to suggest how representative this measure is of the challenging behaviors that staff are exposed to in their work, and whether it is the severity of such behaviors that is most relevant in measuring exposure. The frequency of exposure to challenging behaviors, the topography, or the function of challenging behaviors may be equally important. Moreover, whether a behavior is seen as challenging is based on complex interactions between what the person with mental retardation does, the setting in which they do it, and how their behavior is interpreted or given meaning by staff (Emerson, 1995). Therefore, it could be that staff become habituated to their exposure to challenging behaviors, meaning that challenging behaviors may only act with self-efficacy in influencing the stressful responses of staff by virtue of being perceived as unusual and aversive in nature (see Hall & Oliver, 1992; Hastings, Remington, & Hall, 1995; Oilver, Hall, & Nixon, 1999; Taylor & Carr, 1992).

In practical terms, this may mean that continued exposure to low severity but frequent episodes of challenging behaviors may have a different effect on staff stress than exposure to infrequent but severe episodes of challenging behavior. Future research needs to concentrate on the dimensions of challenging behavior that may affect staff stress (e.g. topography, intensity, frequency, duration, behavioral function) in establishing clearer links between these variables. Methods independent of staff self-reports (e.g. observations of staff and their interactions with people with mental retardation) may also offer interesting ways forward for measuring staff exposure to challenging behavior.

Another measurement problem relates to the assessment of staff stress used in the present study. The difference in the level of measurement between feelings of stress (i.e. general job related feelings, not necessarily related to challenging behaviors) and reported levels of self-efficacy (related to a specific stressor - challenging behaviors) may partly explain why self-efficacy did not emerge as a significant predictor of burnout scores. It is also worth noting that the MBI-HSS was validated through research with individuals from a range of occupational groups such as nurses, police, teachers and counsellors. In other words, there are no normative data for staff working with people with mental retardation. It may be that the MBI-HSS fails to consistently capture the feelings of stress associated with working with people with mental retardation. Future research, therefore, should explore such issues using well-being measures that focus more specifically on the stress associated with this kind of work. For example, some recent studies (Mitchell & Hastings, 2001; Jones & Hastings, in press) have shown the Emotional Reactions to Challenging Behavior Scale (Mitchell & Hastings, 1998) to successfully measure levels of distress amongst staff working with people with challenging behaviors.

A third measurement problem concerns the degree of conceptual overlap between items on the HAD scale and the Emotional Exhaustion and Depersonalization sub-scales of the MBI-HSS. A conceptual relationship seems closest for Depersonalization and the HAD depression scale (detached style of interaction), and for both the HAD depression and anxiety scales and the Emotional Exhaustion (feelings of being emotionally overextended and exhausted by one's work) sub-scale. The present results confirmed these relationships (i.e. depression significantly predicted scores on the Depersonalization sub-scale, and both anxiety and depression were found to be

significant predictors of Emotional Exhaustion) and may be explained by this conceptual overlap. In elucidating the source of variance, future research should give full consideration as to whether the domains of burnout are distinctly different phenomenon from other established constructs of psychological well being (e.g. depression, anxiety, generalized self-efficacy) to be used. In this case, the issue of mental health could have certainly been important in the context of burnout. For example, poor mental health and exposure to challenging behaviors could have interacted to place staff at risk of developing work-related burnout. In the present study, the importance of considering such issues as conceptual overlap can also be highlighted in the established predictive relationship between generalized self-efficacy and personal accomplishment.

The final methodological issue to be discussed here concerns the generalization of results. Generalization of the current findings must be treated with caution as they are limited by the representativeness of the sample and the methods of data collection used. Data were gathered according to the requests of individual homes. This may have led to, among other problems, the uneven distribution of questionnaires. Furthermore, despite being fairly typical of staff working in UK services for people with mental retardation (see Hatton, et al., 1995), the present sample are also unlikely to be representative at a number of different levels. To begin with, response rates were only 38% and so the current sample may not have been representative of all staff within the participating organizations. Although an anonymous survey method was used, it cannot be ruled out that the staff who were more burned out were less likely to respond. In addition to this, a large majority of the present sample (78.2%) had received training relevant to working with people with challenging behaviors. Staff with higher levels of behavioral knowledge or who have attended behavioral training programmes have been found more

likely to adopt behavioral causal beliefs and endorse behavioral intervention approaches (e.g. Berryman, Evans, & Kalbag, 1994; Oliver, Hall, Hales, & Head, 1996). This may explain some of why self-efficacy in dealing with challenging behaviors did not significantly predict staff burnout following exposure to challenging behavior. In particular, large amounts of training may have influenced the need for staff to rely on their self-efficacy expectancy (i.e. beliefs that they can perform specified tasks, such as dealing with challenging behaviors), and instead encouraged them to rely on outcome expectancies (i.e. the belief that certain behaviors will lead to certain outcomes, such as those learned in training). A measure of staffs' behavioral knowledge was included in the present study, but it was not considered reliable enough to be incorporated into the main analyses, and hence has not been described. Nonetheless, such questions should be explored more fully in future research in attempting to establish whether it is staffs' perceptions of challenging behaviors or objective factors (e.g. training) that are most significant in influencing levels of burnout.

A second qualification that can be made regarding the present study concerns the need to integrate both individual and situational factors, in considering staffs' stressful responses to challenging behaviors. Organizational processes and structures can shape the emotional and cognitive relationship that people have with their work, and hence their stress responses (e.g. Dyer & Quine, 1998; Hatton & Emerson, 1993a; Potts, Halliday, Plimney, Wright, & Cuthbertson, 1995; Rose & Schelewa-Davies, 1997) This does not detract from the potential effect that challenging behaviors and psychological variables may have on staff stress, but emphasises that it may be important to control for such effects in the analysis of these relationships.

The third qualification recognizes issues of causality and the developmental trajectory of burnout over time. In considering the former, the use of regressional analyses makes it tempting to presume that self-efficacy for dealing with challenging behaviors is not caused by the dependent variable (i.e. the level of stress experienced). This can only be properly addressed within a prospective design, and the retrospective nature of the present study does not allow us to evaluate this any further. The lack of prospective data within the literature exploring the association between challenging behavior and staff stress would imply that this is a fruitful area of analysis.

Taking into account the latter, to examine a stressful encounter without recognizing its momentary properties may be misleading. Longitudinal data may elucidate the developmental trajectory of burnout over time and its relationship to variables such as challenging behavior and self-efficacy.

To this point, discussion has focused on highlighting some of the problems with the current study and qualifying some of the more notable results obtained. Two remaining findings worthy of consideration involve the positive predictive relationship between residents' perceived level of dependence and feelings of Personal Accomplishment, and the negative predictive relationship between residents' perceived level of dependence and attitudes of Depersonalisation. It is easy to understand how working with residents with significant problems in adaptive living skills may provide staff with a sense of purpose to their work. This in turn, may allow staff to easily identify their role in the organization (i.e. they will be clear about what their job entails; see Blumenthal et al., 1998; Dyer & Quine, 1998; Hatton & Emerson, 1993c), and hence, lead to an increased sense of personal accomplishment. At first glance, this result would appear contradictory to the negative association indicated with depersonalization.

However, the increased likelihood of exhibiting impersonal responses towards residents who are less dependent is consistent with established research on the attributions of staff working with people with challenging behaviors (e.g. Hastings, 1997; Hastings, Reed, & Watts, 1997a; Watts, Reed & Hastings, 1997b). This research would suggest that staff are less likely to attribute intent to the behavior problems of residents with high levels of dependence (and perhaps also severe mental retardation, physical disabilities, and distinctive facial appearances), and consequently will be less depersonalized in their responses. In contrast, residents with low levels of dependence may be considered to have more intent when exhibiting challenging behaviours, leading staff to develop more impersonal responses towards them.

With the preceding qualifications and discussions in mind, the general approach taken in the present study, of focusing on the variables and psychological mechanisms for explaining the link between challenging behavior and staff stress has a number of important implications for future research and clinical practice. At a theoretical level, there are likely to be other variables that mediate or moderate the effect of challenging behaviors on staff stress. For example, staffs' level of support resources may play a moderating role (i.e. poorly supported staff may be at high risk of stress in contexts where they are exposed to high levels of challenging behaviors), and variables such as coping may have a mediating or moderating role to play (Hastings & Brown, 2002a). These and other possibilities need to be explored in future research in order to build a more comprehensive model of the inter-relationships between exposure to challenging behaviors and staff stress.

At a practical level, there are at least two reasons why we should continue to be interested in staff stress and how it is affected by challenging behaviors. First, staff stress is related to absenteeism and turnover in services for people with mental retardation (see Rose, 1995 for a review). The discontinuities in care associated with absenteeism and turnover have been shown to have an indirect effect on the quality of services provided to people with mental retardation, and have been illustrated to be general predictors of various psychological problems (including behavior problems) amongst people with mental retardation (e.g. Baumeister & Zaharia, 1986; Emerson & Hatton, 1996; George & Baumeister, 1981; Hall, Oliver, & Murphy, 2001; Hastings & Brown, 2000; Hastings & Remington, 1994).

Second, staff stress has also been demonstrated to be related to staff behavior (see Rose, Mullan, & Fletcher, 1994). For example, several studies have demonstrated that staff reporting high levels of stress are less likely to engage in positive interactions with residents (Baumeister & Zaharia, 1986; Rose, Jones, & Fletcher, 1998; Rose & Schelewa-Davies, 1997). In addition, some community-based studies have even suggested that the level of support provided by staff in stressful situations is similar to that found in institutions (Emerson & Hatton, 1996).

Such negative effects are of enormous significance to clinical psychologists working with people with mental retardation as most of their work is delivered through staff to residents. By continuing to explore the mechanism underlying the relationship between challenging behavior and staff stress, there is potential to make a major breakthrough in our understanding of what burnout is, what causes it, and what we can do about it for staff working with people with mental retardation.

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Table 1 - Characteristics of Participating Homes

Characteristic	Proportion of Homes
Staff complement	
10 or fewer	45%
20 or fewer	35%
More than 20	20%
Resident complement	
4 - 5 residents	42%
6 - 7 residents	21%
8 - 9 residents	11%
10 or more residents	26%
Residents with behavioral programs introduced in last 6 months	73%
Residents with significant problems in adaptive living skills [1]	47%

[1] Communication, self-care, home living, social skills, community use, self-direction, health and safety, functional academics, leisure, and work.

Table 2 - Staff Characteristics

Characteristic	Mean / %
Job	
Direct care staff (i.e. day-care workers, support workers)	88% (N = 89)
Managerial staff (i.e. assistant managers, deputy managers, or home managers).	12% (N = 12)
Average amount of time spent working in services for people with mental retardation (months)	65.26 (SD = 60.22)
Length of service in current working environment (months)	25.81 (SD = 23.36)
Mean no. hours worked per week	35.55 (SD = 8.44)
Living with spouse/partner	62.4% (N = 63)
No. children/dependants	
No children/dependants	51.5% (N = 52)
1 - 2 children/dependants	30% (N = 31)
3 - 5 children/dependants	15% (N = 15)
More than 6 children/ dependants	3% (N = 3)

Table 3 - Mean Burnout Scores in UK studies

	Present study	Mitchell & Hastings, 2001	Blumenthal et al., 1998
Emotional Exhaustion	16.30	16.54	16.90
Depersonalization	2.76	4.00	3.60
Personal Accomplishment	35.48	33.55	36.90

Table 4 - Predictors of Emotional Exhaustion

Model/Step	Predictor	β	p	R^2 change	F	p
1	Gender	-.337	.000	.189	11.291	.000
	No. of Dependants	-.238	.011			
2	Gender	-.286	.001	.250	10.329	.000
	No. of Dependants	-.210	.009			
	Level of Dependence	.109	.183			
	Generalized Self-efficacy	.123	.151			
	HAD anxiety	.259	.021			
	HAD depression	.317	.007			
3	Gender	-.283	.001	.003	.470	.495
	No. of Dependants	-.201	.014			
	Level of Dependence	.103	.211			
	Generalized Self-efficacy	.118	.173			

Cont.

3 (Cont.)	HAD anxiety	.266	.018			
	HAD depression	.304	.011			
	Exposure to Severe CB	.055	.495			
4	Gender	-.282	.001	.002	.321	.573
	No. of Dependants	-.201	.014			
	Level of Dependence	.105	.206			
	Generalized Self-efficacy	.127	.151			
	HAD anxiety	.252	.030			
	HAD depression	.314	.010			
	Exposure to Severe CB	.057	.488			
	Self-efficacy in dealing CB	-.046	.573			
5	Gender	-.286	.001	.002	.339	.562
	No. of Dependants	-.193	.020			
	Level of Dependence	.111	.184			

Cont.

5 (Cont.)	Generalized Self-efficacy	.130	.142
	HAD anxiety	.249	.032
	HAD depression	.308	.012
	Exposure to Severe CB	.065	.434
	Self-efficacy in dealing CB	-.056	.508
	Exposure X Self-efficacy CB	.049	.562

Table 5 - Predictors of Depersonalization

Model/Step	Predictor	β	p	R^2 Change	F	p
1	Introduction of behavioral programs in the last six months	.269	.006	.073	7.739	.006
2	Introduction of behavioral programs in the last six months	.146	.104	.236	8.099	.000
	Level of Dependence	-.169	.060			
	Generalized Self-efficacy	.117	.221			
	HAD anxiety	.219	.077			
	HAD depression	.301	.019			
3	Introduction of behavioral programs in the last six months	.140	.123	.003	.426	.516
	Level of Dependence	-.175	.053			

Cont.

3 (Cont.)	Generalized Self-efficacy	.111	.247			
	HAD anxiety	.229	.068			
	HAD depression	.286	.028			
	Exposure to Severe CB	.057	.516			
4	Introduction of behavioral programs in the last six months	.140	.122	.003	.339	.562
	Level of Dependence	-.175	.055			
	Generalized Self-efficacy	.121	.216			
	HAD anxiety	.213	.097			
	HAD depression	.295	.025			
	Exposure to Severe CB	.059	.506			
	Self-efficacy in dealing CB	-.052	.562			
5	Introduction of behavioral programs in the last six months	.110	.231	.018	2.460	.120
	Level of Dependence	-.196	.032			

Cont.

5 (Cont.)	Generalized Self-efficacy	.115	.240
	HAD anxiety	.229	.074
	HAD depression	.311	.018
	Exposure to Severe CB	.040	.649
	Self-efficacy in dealing CB	-.023	.798
	Exposure X Self-efficacy CB	-.144	.120

Table 6 - Predictors of Personal Accomplishment

Model/Step	Predictor	β	p	R^2 Change	F	p
1	Length of service	-.252	.011	.063	6.641	.011
2	Length of service	-.277	.001	.306	11.427	.000
	Level of Dependence	.371	.000			
	Generalized Self-efficacy	.341	.000			
	HAD anxiety	-.023	.845			
	HAD depression	-.188	.125			
3	Length of service	-.293	.001	.015	2.223	.139
	Level of Dependence	.361	.000			
	Generalized Self-efficacy	.324	.001			
	HAD anxiety	-.007	.956			
	HAD depression	-.218	.077			
	Exposure to Severe CB	.125	.139			Cont.

4 (Cont.)	Length of service	-.304	.001	.004	.657	.420
	Level of Dependence	.362	.000			
	Generalized Self-efficacy	.308	.001			
	HAD anxiety	.012	.922			
	HAD depression	-.229	.066			
	Exposure to Severe CB	.125	.140			
	Self-efficacy in dealing CB	.070	.420			
5	Length of service	-.300	.001	.002	.250	.618
	Level of Dependence	.356	.000			
	Generalized Self-efficacy	.306	.001			
	HAD anxiety	.015	.902			
	HAD depression	-.255	.073			
	Exposure to Severe CB	.117	.172			
	Self-efficacy in dealing CB	.077	.383			

Cont.

5 (Cont.)	Exposure X Self-efficacy CB	-.043	.618

Appendices

[a] In accordance with Local Research Ethics Committee (L.R.E.C.) guidelines, all consent forms and debriefing statements were issued on headed notepaper.

Appendix 1

Ethical Approval

University of Southampton

Department of Psychology

University of Southampton
Highfield
Southampton
SO17 1BJ
United Kingdom

Telephone +44 (0)23 8059 500(
Fax +44 (0)23 8059 4597
Email

7 June 2001

Sharon Horne
24 Wallis Drive
Bramley
Hampshire
RG26 5XQ

Dear Sharon,

Re: An investigation into the role of self-efficacy and positive perceptions in predicting burnout in support staff in services for adults with learning disabilities and challenging behaviour

The above titled application - which was recently submitted to the departmental ethics committee, has now been given approval.

Should you require any further information, please do not hesitate in contacting me on 023 8059 3995.

Yours sincerely,

KMSmith

Kathryn Smith
Ethical Secretary

cc. Janet Turner

Appendix 2

Manager's Questionnaire

QUESTIONNAIRE TO BE COMPLETED BY THE MANAGERS OF PARTICIPATING SERVICES

Please answer all the questions on the form. If you have any questions about this form, please contact: Sharon Horne, Trainee Clinical Psychologist, Doctoral Programme in Clinical Psychology, University of Southampton, Shackleton Building, Highfield, Southampton, tel: 02380 595321.

1. How many clients reside in your service (please specify the number of men and women)?

..... men .....women

2. How many of these residents have engaged in an aggressive challenging behaviour (i.e. aggression towards self, property destruction, or physical aggression toward staff/others) in the last month?

.....

3. Within the last SIX MONTHS, have there been any psychological/behavioural programmes in place for challenging behaviours of clients within your work setting?

☒ Yes ☒ No

How many of the clients in your work setting have had behavioural/psychological programmes in the last six months?

..... clients

4. Please estimate the proportion of residents in your service have significant problems with adaptive skills?

	None of Them	The Minority	The Majority	All of them
COMMUNICATION (i.e. the ability to comprehend and express information, including requests, an emotion, a greeting, a comment, a protest, or rejection)	0	1	2	3
SELF-CARE (i.e. toileting, eating, dressing, hygiene, & grooming)	0	1	2	3
HOME LIVING (i.e. skills related to functioning within a home, including, clothing care, housekeeping, property maintenance, food preparation and cooking, planning and budgeting for shopping, home safety & daily scheduling)	0	1	2	3

PLEASE TURN OVER

	None of Them	The Minority	The Majority	All of them
SOCIAL SKILLS (i.e. skills related to social exchanges with others, including, recognizing feelings, regulating one's own behaviour, forming friendships, coping with demands from others, & initiating, and terminating interaction with others)	0	1	2	3
COMMUNITY USE (i.e. skills related to the appropriate use of community resources, including, traveling in the community, shopping at stores, & using public facilities such as libraries and parks)	0	1	2	3
SELF-DIRECTION (i.e. skills related to making choices, learning and following a schedule, initiating appropriate activities, completing necessary or required tasks, seeking assistance when needed, resolving problems, & demonstrating appropriate assertiveness)	0	1	2	3
HEALTH & SAFETY (i.e. skills related to the maintenance of one's health, in terms of eating, physical fitness, & illness identification, treatment, and prevention)	0	1	2	3
FUNCTIONAL ACADEMICS (i.e. the acquisition of cognitive abilities related to learning - writing, reading, practical maths, basic science, geography, & social studies - that have a direct application in real life)	0	1	2	3
LEISURE (i.e. the development of a variety of leisure & recreational interests that reflect personal choices)	0	1	2	3
WORK (i.e. skills related to holding a part- or full-time job or jobs in the community)	0	1	2	3

5. How many staff is there in your service (please specify the number of men and women)?

..... men .....women

6. How many staff in your service are involved in the daily care and supervision of residents?

.....

7. What is the range of qualifications in the area of learning disabilities held by your staff:

.....

.....

.....

.....

.....

.....

PLEASE TAKE A MINUTE TO CHECK THAT YOU HAVE ANSWERED ALL OF THE QUESTIONS
THANK YOU VERY MUCH FOR TAKING THE TIME TO COMPLETE THIS QUESTIONNAIRE

Appendix 3

Consent Forms (Phase 1 & Phase 2)

ON HEADED PAPER

AN INVESTIGATION INTO THE EXPERIENCE OF CARING FOR ADULTS WITH LEARNING DISABILITIES AND CHALLENGING BEHAVIOUR

Letter of Consent for Questionnaires (Phase 1)

I am Sharon Horne, a Trainee Clinical Psychologist studying on the Doctoral Programme in Clinical Psychology at the University of Southampton. I am requesting your participation in a study regarding your experience of caring for people who have learning disabilities and challenging behaviours. This will involve completing one questionnaire, which will take 25 minutes of your time. You will be asked for some general information (e.g. age, gender, marital status, hours typically worked, length of experience/qualifications in caring for people with learning disabilities), and to indicate your understanding or experience of working with this client group. Personal information will not be released to or viewed by anyone other than the researchers involved in this project. Results of this study will not include your name or any other identifying characteristics.

Completion and return of this questionnaire will be taken as evidence of you giving informed consent to be included as a participant in this study, for your data to be used for the purposes of research, and that you understand that published results of this research project will maintain your confidentially. Your participation is voluntary and you may withdraw your participation at any time.

A summary of this research project will be supplied to you upon request. To request a project summary please contact me Sharon Horne at the Doctoral Programme in Clinical Psychology Tel: 023 80595 321 OR e-mail: sharonhorne@compuserve.com.

If you have any questions please contact me Sharon Horne at the Doctoral Programme in Clinical Psychology Tel: 023 80595 321 OR e-mail: sharonhorne@compuserve.com.

If you have questions about your rights as a participant in this research, or if you feel that you have been placed at risk, you may contact the Chair of the Ethics Committee, Department of Psychology, University of Southampton, Southampton, SO17 1BJ. Phone: (023) 8059 3995.

ON HEADED PAPER

AN INVESTIGATION INTO THE EXPERIENCE OF CARING FOR ADULTS WITH LEARNING DISABILITIES AND CHALLENGING BEHAVIOUR

Letter of Consent for Questionnaires (Phase 2)

I am Sharon Horne, a Trainee Clinical Psychologist studying on the Doctoral Programme in Clinical Psychology at the University of Southampton. I would like to thank you for participating in a study regarding your experience of caring for people who have learning disabilities and challenging behaviours. I am now requesting your participation in completing some of the same questions in order to study whether staffs' experiences and feelings relating to their work with people with learning disabilities and challenging behaviours fluctuate over time. This will involve completing one questionnaire, which will take 15 minutes of your time. You will be asked to indicate your understanding or experience of working with people who have learning disabilities and challenging behaviours. Personal information will not be released to or viewed by anyone other than the researchers involved in this project. Results of this study will not include your name or any other identifying characteristics.

Completion and return of this questionnaire will be taken as evidence of you giving informed consent to be included as a participant in this study, for your data to be used for the purposes of research, and that you understand that published results of this research project will maintain your confidentially. Your participation is voluntary and you may withdraw your participation at any time.

A summary of this research project will be supplied to you upon request. To request a project summary please contact me Sharon Horne at the Doctoral Programme in Clinical Psychology Tel: 023 80595 321 OR e-mail: sharonhorne@compuserve.com.

If you have any questions please contact me Sharon Horne at the Doctoral Programme in Clinical Psychology Tel: 023 80595 321 OR e-mail: sharonhorne@compuserve.com.

If you have questions about your rights as a participant in this research, or if you feel that you have been placed at risk, you may contact the Chair of the Ethics Committee, Department of Psychology, University of Southampton, Southampton, SO17 1BJ. Phone: (023) 8059 3995.

Appendix 4

Exposure to Aggressive Challenging Behavior Scale

Exposure to Aggressive Challenging Behaviors Scale

The following questions ask about your recent experience of severe challenging behaviours displayed by the person/people with learning disabilities you work with. Please answer **YES** or **NO** to **each part** of **all** of the following questions by placing a tick in the appropriate box. For each question, think only about your experience of challenging behaviours displayed by the person/people with learning disabilities you work with.

Please think about whether you have recently experienced any aggressive behaviour directed toward YOU. In the PAST MONTH, have you personally experienced:

Physically aggressive behaviour (e.g., kicking, biting, scratching, punching) directed toward you AND resulting in injury to you (i.e., bruising, bleeding, or other tissue damage)? ☒ **Yes** ☒ **No**

Physically aggressive behaviour (e.g., kicking, biting, scratching, punching) directed toward you, but NOT resulting in any form of injury to you? ☒ **Yes** ☒ **No**

Verbally aggressive behaviour directed toward you (e.g., shouting or screaming at you, verbal abuse, threats)? ☒ **Yes** ☒ **No**

Now please think about whether you have recently witnessed any aggressive behaviour directed toward OTHERS (other people with learning disabilities and other staff). In the past MONTH, have you personally witnessed:

Physically aggressive behaviour (e.g., kicking, biting, scratching, punching) directed toward others AND resulting in injury to others (i.e., bruising, bleeding, or other tissue damage)? ☒ **Yes** ☒ **No**

Physically aggressive behaviour (e.g., kicking, biting, scratching, punching) directed toward others, but NOT resulting in any form of injury to others? ☒ **Yes** ☒ **No**

Verbally aggressive behaviour directed toward others (e.g., shouting or screaming at you, verbal abuse, threats)? ☒ **Yes** ☒ **No**

Now please think about whether you have recently witnessed any aggressive behaviour that the person/people with learning disabilities have direct toward themselves (*i.e. self injurious behaviour* - e.g., face slapping, banging head against body or objects, scratching or biting SELF). In the past MONTH, have you personally witnessed:

Self-directed aggressive behaviour that resulted in injury to the person themselves (i.e., bruising, bleeding, or other tissue damage)? ☒ **Yes** ☒ **No**

Self-directed aggressive behaviour that did NOT result in any form of injury to the person themselves? ☒ **Yes** ☒ **No**

Now please think about whether you have recently witnessed any aggressive behaviour directed toward OBJECTS (e.g., banging or kicking furniture or other property, pulling curtains, throwing objects). In the past MONTH, have you personally witnessed:

Aggressive behaviour directed toward objects AND resulting in damage to property? ☒ **Yes** ☒ **No**

Aggressive behaviour directed toward objects but NOT resulting in damage to property? ☒ **Yes** ☒ **No**

Appendix 5

Self-report Questionnaire (Phase 1)

QUESTIONNAIRE

CONFIDENTIAL

Completion and return of this questionnaire will be taken as evidence of you giving informed consent to be included as a participant in this study, for your data to be used for the purposes of research, and that you understand that published results of this research project will maintain your confidentially. Your participation is voluntary and you may withdraw your participation at any time.

SECTION 1

Please begin here and read each section of the questionnaire carefully. It is important that you try to answer ALL the questions in the order in which they appear, according to your first reaction. The following questions ask for background information about you, your qualifications, training and experience in services for people with learning disabilities (please tick the boxes accordingly). If you have any questions about this form contact: Sharon Horne, Trainee Clinical Psychologist, Doctoral Programme in Clinical Psychology, University of Southampton, Shackleton Building, Highfield, Southampton, tel: 02380 595321.

1. Are you male or female? *Male* ☒ *Female* ☒

2. What was your age on your last birthday? ..... *years*

3. Are you currently living with a partner/spouse? *Yes* ☒ *No* ☒

4. How many dependants do you care for at home (including children/older relatives etc)?

None	☒	*three*	☒	*six or more*	☒
one	☒	*four*	☒		
two	☒	*five*	☒		

5. Please tick the box below next to your highest educational achievement.

☒ *No formal qualifications*
☒ *GCSE/O levels or equivalent*
☒ *'A ' level/HNC or equivalent*
☒ *HND or other diploma equivalent*
☒ *Polytechnic /University Degree*
☒ *Masters/Doctoral Degree*

6a. Do you have any formal qualifications relating to people with learning disabilities? (e.g. nursing, social work, teaching, psychology)

Yes ☒ *No* ☒

If yes, what qualifications do you hold? .....

6b. What is your job title? .....

PLEASE TURN OVER

7. Approximately how long have you worked in this particular home/service?

..... years ..... months

8. Approximately how many hours do you work in this home/service each week?

..... *hours*

9. Overall, approximately how long have you worked in services for people with learning disabilities?

..... years ..... months

SECTION 2

The following questions ask about your recent experience of severe challenging behaviours displayed by the person/people with learning disabilities you work with. Please answer **YES** or **NO** to **each part** of **all** of the following questions by placing a tick in the appropriate box. For each question, think only about your experience of challenging behaviours displayed by the person/people with learning disabilities you work with.

Please think about whether you have recently experienced any aggressive behaviour directed toward YOU. In the PAST MONTH, have you personally experienced:

Physically aggressive behaviour (e.g., kicking, biting, scratching, punching) directed toward you AND resulting in injury to you (i.e., bruising, bleeding, or other tissue damage)? ☒ **Yes** ☒ **No**

Physically aggressive behaviour (e.g., kicking, biting, scratching, punching) directed toward you, but NOT resulting in any form of injury to you? ☒ **Yes** ☒ **No**

Verbally aggressive behaviour directed toward you (e.g., shouting or screaming at you, verbal abuse, threats)? ☒ **Yes** ☒ **No**

Now please think about whether you have recently witnessed any aggressive behaviour directed toward OTHERS (other people with learning disabilities and other staff). In the past MONTH, have you personally witnessed:

Physically aggressive behaviour (e.g., kicking, biting, scratching, punching) directed toward others AND resulting in injury to others (i.e., bruising, bleeding, or other tissue damage)? ☒ **Yes** ☒ **No**

Physically aggressive behaviour (e.g., kicking, biting, scratching, punching) directed toward others, but NOT resulting in any form of injury to others? ☒ **Yes** ☒ **No**

Verbally aggressive behaviour directed toward others (e.g., shouting or screaming at you, verbal abuse, threats)? ☒ **Yes** ☒ **No**

Now please think about whether you have recently witnessed any aggressive behaviour that the person/people with learning disabilities have direct toward themselves (*i.e. self injurious behaviour* - e.g., face slapping, banging head against body or objects, scratching or biting SELF). In the past MONTH, have you personally witnessed:

Self-directed aggressive behaviour that resulted in injury to the person themselves (i.e., bruising, bleeding, or other tissue damage)? ☒ **Yes** ☒ **No**

PLEASE TURN OVER

Self-directed aggressive behaviour that did NOT result in any form of injury to the person themselves? ☒ **Yes** ☒ **No**

Now please think about whether you have recently witnessed any aggressive behaviour directed toward OBJECTS (e.g., banging or kicking furniture or other property, pulling curtains, throwing objects). In the past MONTH, have you personally witnessed:

Aggressive behaviour directed toward objects AND resulting in damage to property? ☒ **Yes** ☒ **No**

Aggressive behaviour directed toward objects but NOT resulting in damage to property? ☒ **Yes** ☒ **No**

Have you had any relevant TRAINING for managing client challenging behaviours? (the term 'client' is used to refer to residents with learning disabilities being cared for within your service). Challenging behaviour refers to behaviours such as aggression, self-injurious behaviour, sexually inappropriate behaviour, and repetitive behaviours). Training might have included: assessment of challenging behaviours, restraint, breakaway techniques, etc.

☒ **Yes** ☒ **No**

If yes, please describe what sort of training this was, how long ago it took place, and the length of the training courses.

.....

.....

.....

How many clients are cared for in your work setting? ..... clients

SECTION 3

The following questions ask generally about your experience of the people with learning disabilities you work with. You will be asked to estimate the proportion of residents in your work environment that have significant problems with specific aspects of their life. Please select the answer that **YOU** think is the **BEST** answer, or the answer that is most generally true by circling the appropriate number.

PLEASE TURN OVER

What proportion of the residents in your working environment have significant problems with:

	None of Them	The Minority	The Majority	All of them
COMMUNICATION (i.e. the ability to comprehend and express information, including requests, an emotion, a greeting, a comment, a protest, or rejection)	0	1	2	3
SELF-CARE (i.e. toileting, eating, dressing, hygiene, & grooming)	0	1	2	3
HOME LIVING (i.e. skills related to functioning within a home, including, clothing care, housekeeping, property maintenance, food preparation and cooking, planning and budgeting for shopping, home safety & daily scheduling)	0	1	2	3
SOCIAL SKILLS (i.e. skills related to social exchanges with others, including, recognizing feelings, regulating one's own behaviour, forming friendships, coping with demands from others, & initiating and terminating interaction with others)	0	1	2	3
COMMUNITY USE (i.e. skills related to the appropriate use of community resources, including, traveling in the community, shopping at stores, & using public facilities such as libraries and parks)	0	1	2	3
SELF-DIRECTION (i.e. skills related to making choices, learning and following a schedule, initiating appropriate activities, completing necessary or required tasks, seeking assistance when needed, resolving problems, & demonstrating appropriate assertiveness)	0	1	2	3
HEALTH & SAFETY (i.e. skills related to the maintenance of one's health, in terms of eating, physical fitness, & illness identification, treatment, and prevention)	0	1	2	3
FUNCTIONAL ACADEMICS (i.e. the acquisition of cognitive abilities related to learning - writing, reading, practical maths, basic science, geography, & social studies - that have a direct application in real life)	0	1	2	3
LEISURE (i.e. the development of a variety of leisure & recreational interests that reflect personal choices)	0	1	2	3

PLEASE TURN OVER

	None of Them	The Minority	The Majority	All of them
WORK (i.e. skills related to holding a part- or full-time job or jobs in the community)	0	1	2	3

SECTION 4

Below are several questions that ask about your responses to the challenging behaviours displayed by the person or people with learning disabilities you care for. Please read each question, and place a circle around the number on the scale that reflects your own views. If your views are described best by the end points of the scale, please circle either number 1 or number 7. If your views are somewhere in between the two end points, please select a position on the scale that reflects where you feel your views should be placed. Please select a response for all of the questions.

How confident are you in dealing with the challenging behaviours of the person/people with learning disabilities you care for?

1 2 3 4 5 6 7
Not at all confident — Very confident

How difficult do you personally find it to deal with the challenging behaviours of the person/people with learning disabilities you care for?

1 2 3 4 5 6 7
Very difficult — Not at all difficult

To what extent do you feel that the way you deal with the challenging behaviours of the person/people with learning disabilities you care for has a positive effect?

1 2 3 4 5 6 7
Has no positive effect at all — Has a very positive effect

How satisfied are you with the way in which you deal with the challenging behaviours of the person/people with learning disabilities you care for?

1 2 3 4 5 6 7
Not satisfied at all — Very satisfied

PLEASE TURN OVER

To what extent do you feel in control of the challenging behaviours of the person/people with learning disabilities you care for?

1	2	3	4	5	6	7
Not in control at all						Very much in control

SECTION 5

Read each statement and circle the **one** response that best describes how much you agree or disagree with each statement. The answers and their meanings are:

SD = Strongly Disagree
D = Disagree
A = Agree
SA = Strongly Agree

Remember: Read each statement carefully. Circle only one response for each statement.

1. When I make plans, I am certain I can make them work	**SD**	**D**	**A**	**SA**
2. When unexpected problems occur, I don't handle them well	**SD**	**D**	**A**	**SA**
3. When trying to learn something new, I soon give up if I am not initially successful	**SD**	**D**	**A**	**SA**
4. When I have something unpleasant to do, I stick to it until I finish it	**SD**	**D**	**A**	**SA**
5. If something looks too complicated, I will not even bother to try it	**SD**	**D**	**A**	**SA**
6. I avoid trying to learn new things when they look too difficult for me	**SD**	**D**	**A**	**SA**
7. I give up on things before completing them	**SD**	**D**	**A**	**SA**
8. I feel insecure about my ability to do things	**SD**	**D**	**A**	**SA**
9. I am a self-reliant person	**SD**	**D**	**A**	**SA**
10. When I decide to do something, I go right to work on it	**SD**	**D**	**A**	**SA**
11. Failure just makes me try harder	**SD**	**D**	**A**	**SA**
12. I avoid facing difficulties	**SD**	**D**	**A**	**SA**

PLEASE TURN OVER

13. If I can't do a job the first time, I keep trying until I can	**SD**	**D**	**A**	**SA**
14. I give up easily	**SD**	**D**	**A**	**SA**
15. I do not seem capable of dealing with most problems that come up in life	**SD**	**D**	**A**	**SA**
16. One of my problems is that I cannot get down to work when I should	**SD**	**D**	**A**	**SA**
17. When I set important goals for myself, I rarely achieve them	**SD**	**D**	**A**	**SA**

SECTION 6

The following statements concern your feelings about your job. Please read each statement carefully and decide if you ever feel this way *about your job*. If you have *never* had this feeling, draw a circle around the "0" (zero) next to the statement. If you have had this feeling, indicate *how often* you feel it by drawing a circle around the number that best describes how frequently you feel that way.

	Never	A few times a year or less	Once a month or less	A few times a month	Once a week	A few times a week	Every day
I feel emotionally drained from my work	0	1	2	3	4	5	6
I feel used up at the end of the working day	0	1	2	3	4	5	6
I feel fatigued when I get up in the morning and have to face another day on the job	0	1	2	3	4	5	6
I can easily understand how residents feel about things	0	1	2	3	4	5	6
I feel I treat some residents as if they were impersonal objects	0	1	2	3	4	5	6
Working with people all day is really a strain for me	0	1	2	3	4	5	6
I deal very effectively with the problems of residents	0	1	2	3	4	5	6
I feel burned out from my work	0	1	2	3	4	5	6
I feel I'm positively influencing other people's lives through my work	0	1	2	3	4	5	6

PLEASE TURN OVER

	Never	A few times a year or less	Once a month or less	A few times a month	Once a week	A few times a week	Every day
I've become more callous toward people since I took this job	0	1	2	3	4	5	6
I worry that this job is hardening me emotionally	0	1	2	3	4	5	6
I feel very energetic	0	1	2	3	4	5	6
I feel frustrated by my job	0	1	2	3	4	5	6
I feel I'm working too hard on my job	0	1	2	3	4	5	6
I don't really care what happens to some residents	0	1	2	3	4	5	6
Working with people directly puts too much stress on me	0	1	2	3	4	5	6
I can easily create a relaxed atmosphere with residents	0	1	2	3	4	5	6
I feel exhilarated after working closely with residents	0	1	2	3	4	5	6
I have accomplished many worthwhile things in this job	0	1	2	3	4	5	6
I feel like I'm at the end of my rope	0	1	2	3	4	5	6
In my work, I deal with emotional problems very calmly	0	1	2	3	4	5	6
I feel residents blame me for some of their problems	0	1	2	3	4	5	6

SECTION 7

This questionnaire focuses on how you feel about things. Please read each item and circle the reply underneath the item which comes closest to how you have been feeling in the PAST WEEK. Do not take too long over your replies; your immediate reaction to each item will probably be more accurate than a long thought-out response.

I feel tense or "wound up"

Most of the time A lot of the time From time to time, occasionally Not at all

PLEASE TURN OVER

I still enjoy the things I used to enjoy

Definitely as much | Not quite so much | Only a little | Hardly at all

I get a sort of frightened feeling as if something awful is about to happen

Very definitely and quite badly | Yes, but not too badly | A little, but it doesn't worry me | Not at all

I can laugh and see the funny side of things

As much as I always could | Not quite so much now | Definitely not so much now | Not at all

Worrying thoughts go through my mind

A great deal of the time | A lot of the time | From time to time but not too often | Only occasionally

I feel cheerful

Not at all | Not often | Sometimes | Most of the time

I can sit at ease and feel relaxed

Definitely | Usually | Not often | Not at all

I feel as if I am slowed down

Nearly all the time | Very often | Sometimes | Not at all

I get a sort of frightened feeling like "butterflies" in the stomach

Not at all | Occasionally | Quite often | Very often

I have lost interest in my appearance

Definitely | I don't take as much care as I should | I may not take quite as much care | I take just as much care as ever

I feel restless as if I have to be on the move

Very much indeed | Quite a lot | Not very much | Not at all

I look forward with enjoyment to things

As much as I ever did | Rather less than I used to | Definitely less than I used to | Hardly at all

I get sudden feelings of panic

Very often indeed | Quite often | Not very often | Not at all

I can enjoy a good book or radio or TV programme

Often | Sometimes | Not often | Very seldom

PLEASE TURN OVER

Is there any other information you think is important that I have not asked about?

.....

.....

.....

.....

PLEASE TAKE A MINUTE TO CHECK THAT YOU HAVE ANSWERED ALL OF THE QUESTIONS
THANK YOU VERY MUCH FOR TAKING THE TIME TO COMPLETE THIS QUESTIONNAIRE

Appendix 6

Self-report Questionnaire (Phase 2)

QUESTIONNAIRE

CONFIDENTIAL

Completion and return of this questionnaire will be taken as evidence of you giving informed consent to be included as a participant in this study, for your data to be used for the purposes of research, and that you understand that published results of this research project will maintain your confidentially. Your participation is voluntary and you may withdraw your participation at any time.

Please begin here and read each section of the questionnaire carefully. It is important that you try to answer ALL the questions in the order in which they appear, according to your first reaction. If you have any questions about this form contact: Sharon Horne, Trainee Clinical Psychologist, Doctoral Programme in Clinical Psychology, University of Southampton, Shackleton Building, Highfield, Southampton, tel: 02380 595321.

SECTION 1

The following questions ask about your recent experience of severe challenging behaviours displayed by the person/people with learning disabilities you work with. Please answer **YES** or **NO** to **each part** of **all** of the following questions by placing a tick in the appropriate box. For each question, think only about your experience of challenging behaviours displayed by the person/people with learning disabilities you work with.

Please think about whether you have recently experienced any aggressive behaviour directed toward YOU. In the PAST MONTH, have you personally experienced:

Physically aggressive behaviour (e.g., kicking, biting, scratching, punching) directed toward you AND resulting in injury to you (i.e., bruising, bleeding, or other tissue damage)?	☒ **Yes** ☒ **No**
Physically aggressive behaviour (e.g., kicking, biting, scratching, punching) directed toward you, but NOT resulting in any form of injury to you?	☒ **Yes** ☒ **No**
Verbally aggressive behaviour directed toward you (e.g., shouting or screaming at you, verbal abuse, threats)?	☒ **Yes** ☒ **No**

Now please think about whether you have recently witnessed any aggressive behaviour directed toward OTHERS (other people with learning disabilities and other staff). In the past MONTH, have you personally witnessed:

Physically aggressive behaviour (e.g., kicking, biting, scratching, punching) directed toward others AND resulting in injury to others (i.e., bruising, bleeding, or other tissue damage)?	☒ **Yes** ☒ **No**
Physically aggressive behaviour (e.g., kicking, biting, scratching, punching) directed toward others, but NOT resulting in any form of injury to others?	☒ **Yes** ☒ **No**
Verbally aggressive behaviour directed toward others (e.g., shouting or screaming at you, verbal abuse, threats)?	☒ **Yes** ☒ **No**

PLEASE TURN OVER

Now please think about whether you have recently witnessed any aggressive behaviour that the person/people with learning disabilities have direct toward themselves (*i.e. self injurious behaviour* - e.g., face slapping, banging head against body or objects, scratching or biting SELF). In the past MONTH, have you personally witnessed:

Self-directed aggressive behaviour that resulted in injury to the person themselves (i.e., bruising, bleeding, or other tissue damage)?	☒ **Yes** ☒ **No**
Self-directed aggressive behaviour that did NOT result in any form of injury to the person themselves?	☒ **Yes** ☒ **No**

Now please think about whether you have recently witnessed any aggressive behaviour directed toward OBJECTS (e.g., banging or kicking furniture or other property, pulling curtains, throwing objects). In the past MONTH, have you personally witnessed:

Aggressive behaviour directed toward objects AND resulting in damage to property?	☒ **Yes** ☒ **No**
Aggressive behaviour directed toward objects but NOT resulting in damage to property?	☒ **Yes** ☒ **No**

SECTION 2

The following questions ask generally about your experience of the people with learning disabilities you work with. You will be asked to estimate the proportion of residents in your work environment that have significant problems with specific aspects of their life. Please select the answer that **YOU** think is the **BEST** answer, or the answer that is most generally true by circling the appropriate number.

What proportion of the residents in your working environment have significant problems with:

	None of Them	The Minority	The Majority	All of them
COMMUNICATION (i.e. the ability to comprehend and express information, including requests, an emotion, a greeting, a comment, a protest, or rejection)	0	1	2	3
SELF-CARE (i.e. toileting, eating, dressing, hygiene, & grooming)	0	1	2	3
HOME LIVING (i.e. skills related to functioning within a home, including, clothing care, housekeeping, property maintenance, food preparation and cooking, planning and budgeting for shopping, home safety & daily scheduling)	0	1	2	3

PLEASE TURN OVER

	None of Them	The Minority	The Majority	All of them
SOCIAL SKILLS (i.e. skills related to social exchanges with others, including, recognizing feelings, regulating one's own behaviour, forming friendships, coping with demands from others, & initiating and terminating interaction with others)	0	1	2	3
COMMUNITY USE (i.e. skills related to the appropriate use of community resources, including, traveling in the community, shopping at stores, & using public facilities such as libraries and parks)	0	1	2	3
SELF-DIRECTION (i.e. skills related to making choices, learning and following a schedule, initiating appropriate activities, completing necessary or required tasks, seeking assistance when needed, resolving problems, & demonstrating appropriate assertiveness)	0	1	2	3
HEALTH & SAFETY (i.e. skills related to the maintenance of one's health, in terms of eating, physical fitness, & illness identification, treatment, and prevention)	0	1	2	3
FUNCTIONAL ACADEMICS (i.e. the acquisition of cognitive abilities related to learning - writing, reading, practical maths, basic science, geography, & social studies - that have a direct application in real life)	0	1	2	3
LEISURE (i.e. the development of a variety of leisure & recreational interests that reflect personal choices)	0	1	2	3
WORK (i.e. skills related to holding a part- or full-time job or jobs in the community)	0	1	2	3

SECTION 3

Below are several questions that ask about your responses to the challenging behaviours displayed by the person or people with learning disabilities you care for. Please read each question, and place a circle around the number on the scale that reflects your own views. If your views are described best by the end points of the scale, please circle either number 1 or number 7. If your views are somewhere in between the two end points, please select a position on the scale that reflects where you feel your views should be placed. Please select a response for all of the questions.

PLEASE TURN OVER

How confident are you in dealing with the challenging behaviours of the person/people with learning disabilities you care for?

1	2	3	4	5	6	7
Not at all confident						Very confident

How difficult do you personally find it to deal with the challenging behaviours of the person/people with learning disabilities you care for?

1	2	3	4	5	6	7
Very difficult						Not at all difficult

To what extent do you feel that the way you deal with the challenging behaviours of the person/people with learning disabilities you care for has a positive effect?

1	2	3	4	5	6	7
Has no positive effect at all						Has a very positive effect

How satisfied are you with the way in which you deal with the challenging behaviours of the person/people with learning disabilities you care for?

1	2	3	4	5	6	7
Not satisfied at all						Very satisfied

To what extent do you feel in control of the challenging behaviours of the person/people with learning disabilities you care for?

1	2	3	4	5	6	7
Not in control at all						Very much in control

SECTION 4

Read each statement and circle the **one** response that best describes how much you agree or disagree with each statement. The answers and their meanings are:

SD = Strongly Disagree
D = Disagree
A = Agree
SA = Strongly Agree

PLEASE TURN OVER

Remember: Read each statement carefully. Circle only <u>one</u> response for each statement.

1. When I make plans, I am certain I can make them work	**SD**	**D**	**A**	**SA**
2. When unexpected problems occur, I don't handle them well	**SD**	**D**	**A**	**SA**
3. When trying to learn something new, I soon give up if I am not initially successful	**SD**	**D**	**A**	**SA**
4. When I have something unpleasant to do, I stick to it until I finish it	**SD**	**D**	**A**	**SA**
5. If something looks too complicated, I will not even bother to try it	**SD**	**D**	**A**	**SA**
6. I avoid trying to learn new things when they look too difficult for me	**SD**	**D**	**A**	**SA**
7. I give up on things before completing them	**SD**	**D**	**A**	**SA**
8. I feel insecure about my ability to do things	**SD**	**D**	**A**	**SA**
9. I am a self-reliant person	**SD**	**D**	**A**	**SA**
10. When I decide to do something, I go right to work on it	**SD**	**D**	**A**	**SA**
11. Failure just makes me try harder	**SD**	**D**	**A**	**SA**
12. I avoid facing difficulties	**SD**	**D**	**A**	**SA**
13. If I can't do a job the first time, I keep trying until I can	**SD**	**D**	**A**	**SA**
14. I give up easily	**SD**	**D**	**A**	**SA**
15. I do not seem capable of dealing with most problems that come up in life	**SD**	**D**	**A**	**SA**
16. One of my problems is that I cannot get down to work when I should	**SD**	**D**	**A**	**SA**
17. When I set important goals for myself, I rarely achieve them	**SD**	**D**	**A**	**SA**

PLEASE TAKE A MINUTE TO CHECK THAT YOU HAVE ANSWERED ALL OF THE QUESTIONS
THANK YOU VERY MUCH FOR TAKING THE TIME TO COMPLETE THIS QUESTIONNAIRE

Appendix 7

Debriefing Statements (Phase 1 & Phase 2)

ON HEADED PAPER

AN INVESTIGATION INTO THE EXPERIENCE OF CARING FOR ADULTS WITH INTELLECTUAL DISABILITIES AND CHALLENGING BEHAVIOUR

Debriefing Statement (Phase 1)

The aim of this research was to investigate the effect of efficacy in dealing with challenging behaviours in predicting levels of burnout amongst staff working with people with challenging behaviours. The results of this study will not include your name or any other identifying characteristics. The questionnaire did not use deception.

If you have any further questions please contact, Sharon Horne, Doctoral Programme in Clinical Psychology, University of Southampton, Shackleton Building, Highfield, Southampton, or by telephoning 02380 595321. You may have a copy of the research findings once the project is completed if you wish.

Thank you for your participation in this research.

Signature _____ Date _____

If you have questions about your rights as a participant in this research, or if you feel that you have been placed at risk, you may contact the Chair of the Ethics Committee, Department of Psychology, University of Southampton, Southampton, SO17 1BJ. Phone: (02380) 592612.

ON HEADED PAPER

AN INVESTIGATION INTO THE EXPERIENCE OF CARING FOR ADULTS WITH INTELLECTUAL DISABILITIES AND CHALLENGING BEHAVIOUR

Debriefing Statement (Phase 2)

The aim of this research was to investigate the effect of efficacy in dealing with challenging behaviours in predicting levels of burnout amongst staff working with people with challenging behaviours. The results of this study will not include your name or any other identifying characteristics. The questionnaire did not use deception.

If you have any further questions please contact, Sharon Horne, Doctoral Programme in Clinical Psychology, University of Southampton, Shackleton Building, Highfield, Southampton, or by telephoning 02380 595321. You may have a copy of the research findings once the project is completed if you wish.

Thank you for your participation in this research.

Signature _____ Date _____

If you have questions about your rights as a participant in this research, or if you feel that you have been placed at risk, you may contact the Chair of the Ethics Committee, Department of Psychology, University of Southampton, Southampton, SO17 1BJ. Phone: (02380) 592612.

Appendix 8i

Instructions to Authors - Clinical Psychology Review

CLINICAL PSYCHOLOGY REVIEW

INSTRUCTIONS TO AUTHORS

AIMS AND SCOPE: *Clinical Psychology Review* publishes substantive reviews of topics germane to clinical psychology. Its purpose is to help clinical psychologists keep up-to-date on relevant issues outside of their immediate areas of expertise by publishing scholarly but readable reviews. Papers cover diverse issues, including: psychopathology, psychotherapy, behavior therapy, behavioral medicine, community mental health, assessment, and child development.

Reviews on other topics, such as psychophysiology, learning therapy, and social psychology, often appear if they have a clear relationship to research or practice in clinical psychology. Integrative literature reviews and summary reports of innovative ongoing clinical research programs are also sometimes published. Reports on individual research studies are not appropriate.

SUBMISSION REQUIREMENTS: All manuscripts should be submitted to Alan S. Bellack, The University of Maryland at Baltimore, Department of Psychiatry, 737 W. Lombard St., Suite 551, Baltimore, MD 21201, USA. Submit three (3) high-quality copies of the entire manuscript; the original is not required. Allow ample margins and type double-space throughout. Papers should not exceed 50 pages (including references). One of the paper's authors should enclose a letter to the Editor, requesting review and possible publication; the letter must also state that the manuscript has not been previously published and has not been submitted elsewhere. One author's address (as well as any upcoming address change), telephone and FAX numbers, and E-mail address (if available) should be included; this individual will receive all correspondence from the Editor and Publisher.

Papers accepted for *Clinical Psychology Review* may not be published elsewhere in any language without written permission from the author(s) and publishers. Upon acceptance for publication, the author(s) must complete a Transfer of Copyright Agreement form.

COMPUTER DISKS: Authors are encouraged to submit a 3.5" HD/DD computer disk to the editorial office. Please observe the following criteria: (1) Send only hard copy when first submitting your paper. (2) When your paper has been refereed, revised if necessary, and accepted, send a disk containing the final version with the final hard copy. If the disk cannot be converted, the hard copy will be used. (3) Specify what software was used, including which release, e.g., WordPerfect 6.0a. (4) Specify what computer was used (IBM compatible PC, Apple Macintosh, etc.). (5) The article file should include all textual material (text, references, tables, figure captions, etc.) and separate illustration files, if available. (6) The file should follow the general instructions on style/arrangement and, in particular, the reference style of this journal as given in the Instructions to Contributors. (7) The file should be single-spaced and should use the wrap-around end-of-line feature, i.e., returns at the end of paragraphs only. Place two returns after every element such as title, headings, paragraphs, figure and table call-outs. (8) Keep a back-up disk for reference and safety.

TITLE PAGE: The title page should list (1) the article; (2) the authors' names and affiliations at the time the work was conducted; (3) a concise running title; and (4) an unnumbered footnote giving an address for reprint requests and acknowledgments.

ABSTRACT: An abstract should be submitted that does not exceed 200 words in length. This should be typed on a separate page following the title page.

KEYWORDS: Authors should include up to six keywords with their article. Keywords should be selected from the APA list of index descriptors, unless otherwise agreed with the Editor.

STYLE AND REFERENCES: Manuscripts should be carefully prepared using the *Publication Manual of the American Psychological Association*, 4th ed., 1994, for style. The reference section must be double spaced, and all works cited must be listed. Avoid abbreviations of journal titles and incomplete information.

Reference Style for Journals:

Raymond, M. J. (1964). The treatment of addiction by aversion conditioning with apomorphine. *Behavior Research and Therapy, 3,* 287–290.

For Books:

Barlow, D. H., Hayes, S. C., & Nelson, R. O. (1984). *The scientist practitioner: Research and accountability in clinical and educational settings.* Elmsford, NY: Pergamon.

TABLES AND FIGURES: Do not send glossy prints, photographs or original artwork until acceptance. Copies of all tables and figures should be included with each copy of the manuscript. Upon acceptance of a manuscript for publication, original, camera-ready photographs and artwork must be submitted, unmounted and on glossy paper. Photocopies, blue ink or pencil are not acceptable. Use black india ink and type figure legends on a separate sheet. Write the article title and figure number lightly in pencil on the back of each.

PAGE PROOFS AND OFFPRINTS: Page proofs of the article will be sent to the corresponding author. These should be carefully proofread. Except for typographical errors, corrections should be minimal, and rewriting the text is not permitted. Corrected page proofs must be returned within 48 hours of receipt. Along with the page proofs, the corresponding author will receive a form for ordering offprints and full copies of the issue in which the article appears. Twenty-five (25) free offprints are provided; orders for additional offprints must be received before printing in order to qualify for lower publication rates. All coauthor offprint requirements should be included on the offprint order form.

AUTHOR QUERIES: For queries relating to the submission of articles (including electronic submission), the status of accepted articles through the Online Article Status Information System (OASIS), author Frequently Asked Questions, and other queries relating to Elsevier Science, please consult http://www.elsevier.com/locate/authors/ For all other queries please e-mail Elsevier Author Support at: authorsupport@elsevier.ie

COPYRIGHT: Publications are copyrighted for the protection of the authors and the publisher. A Transfer of Copyright Agreement will be sent to the author whose manuscript is accepted. The form must be completed and returned to the publisher before the article can be published.

Appendix 8ii

Instructions to Authors - American Journal on Mental Retardation

INFORMATION FOR AUTHORS

Manuscripts should be prepared in accordance with the *Publication Manual of the American Psychological Association* (4th ed.). The instructions given there for preparing tables, figures, references, metrics, and abstracts should be followed. Regular articles are to include an abstract containing a maximum of 120 words. The editor is responsible for obtaining reviews and deciding on the disposition of all manuscripts (acceptance, rejection, or requests for revision). Once a manuscript is accepted for publication, the remainder of the production process is coordinated by the Senior Editor, Yvette Taylor, 10886 Ravel Ct., Boca Raton, FL 33498; E-mail, ytaamr@aol.com; phone, 561-482-0341. For this purpose, an electronic version of the accepted manuscript should be provided. It is preferable for this to be IBM-compatible, in WordPerfect or Word on a 3.5 inch diskette.

Ethical Standards. All investigations using human participants must have been approved by the human subjects review committee of the author's institution. Submission of a manuscript to *AJMR* while that paper is under review by another journal is unacceptable. Presentation of a manuscript in electronic form on the Internet is considered to constitute publication and may be grounds for rejection of the paper by this journal.

Form. All sections of the manuscript (including quotations, references, tables, and footnotes) should be double spaced on 8 by 11-inch paper with at least a 1-inch margin on all sides. Authors should retain the original and submit four copies of the manuscript and figures to the editor, Donald K. Routh, Dept. of Psychology, University of Miami, PO Box 249229, Coral Gables, FL 33124-0721. Copies will not usually be returned. If the manuscript is prepared for blind review, a cover sheet should be submitted including title, authors, affiliations, and the address of the author to whom correspondence should be directed, as well as a running head (not to exceed 40 characters). Manuscripts will be reviewed anonymously if this is requested. For anonymous review, the running head rather than the author" name should appear on each page of the manuscript, and other identifying material should be removed. Titles should not exceed 15 words. Only standard abbreviations should be used. The preferred length of manuscripts is 20 typed pages or less, but somewhat greater length may be accepted depending on the complexity and importance of the research reported.

Abbreviations and Terminology. Abbreviations should be held to a minimum. The names of groups or experimental conditions should usually not be abbreviated. The full names of tests should be given when they are first mentioned, with the common shortened form in parentheses.

When context makes it clear whether an author is referring to people with mental retardation or when it is otherwise unnecessary to refer to intellectual level or diagnostic category, authors should use the most descriptive generic terms, such as children, students, or persons, without using qualifiers such as "with mental retardation," "with handicaps," or "with developmental disabilities." Under no circumstances should retarded be used as a noun. Prepositional constructions such as "students with mental retardation," or "individuals who have mental retardation' are preferred over adjectival constructions such as "mentally retarded people" except when clear communication dictates occasional use of adjectival designations. Because *normal* has multiple meanings and may inappropriately imply abnormal where it is not applied, this word should not be used. Instead, more operationally descriptive terms such as "intellectually average pupils" should be used.

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