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FACULTY OF MEDICINE, HEALTH AND LIFE SCIENCES

School of Psychology

PSYCHOLOGICAL CORRELATES OF WELL-BEING IN DIRECT CARE STAFF IN

SERVICES FOR CHILDREN WITH INTELLECTUAL DISABILITIES AND

CHALLENGING BEHAVIOUR

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Thesis for the degree of Doctor of Educational Psychology

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<u>**ABSTRACT**</u>

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PSYCHOLOGICAL CORRELATES OF WELL-BEING IN DIRECT CARE STAFF IN

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Working with people with learning disabilities can be stressful for direct care staff; as many as one-third of staff members in adult services experience stress levels indicative of a mental health problem.   In addition to adverse effects on staff mental and physical health, staff stress can impact on the delivery and quality of services for people with learning disabilities. Challenging behaviour is recognised as a significant source of staff stress.   Both adults and children with learning disabilities may display challenging behaviours including self-injury and physical aggression, the severity and frequency of which can be extremely distressing for staff exposed to them on a daily basis.

This thesis explored psychological mechanisms which may explain how challenging behaviour impacts on the well-being of care staff. Chapter One reviews the evidence for the roles of negative emotional reactions to challenging behaviour and the psychological resources of

care staff in the development of stress and burnout. Chapter Two investigates whether experiential avoidance, thought suppression and mindfulness, which has been found to be significant predictors of mental health outcomes outside of the learning disabilities field, provides a psychological mechanism for understanding the relationship between negative emotional reactions to challenging behaviour and staff well-being.

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DECLARATION OF AUTHORSHIP

I, Kate Jenkins declare that the thesis entitled Psychological Correlates of Well-Being in Direct Care Staff in Services for Children with Intellectual Disabilities and Challenging Behaviour and the work presented in the thesis are both my own, and have been generated by me as the result of my own original research. I confirm that:

- this work was done wholly or mainly while in candidature for a research degree at this University;

- where any part of this thesis has previously been submitted for a degree or any other qualification at this University or any other institution, this has been clearly stated;

- where I have consulted the published work of others, this is always clearly attributed;

- where I have quoted from the work of others, the source is always given. With the exception of such quotations, this thesis is entirely my own work;

- I have acknowledged all main sources of help;

- where the thesis is based on work done by myself jointly with others, I have made clear exactly what was done by others and what I have contributed myself;

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ACKNOWLEDGEMENTS

CHAPTER ONE: EMOTIONAL REACTIONS TO CHALLENGING BEHAVIOUR, PSYCHOLOGICAL RESOURCES AND STAFF WELL-BEING

Abstract

Challenging behaviour has significant effects on the psychological well-being of care staff working in learning disability services. Exposure to client challenging behaviour has been associated with a number of measures of direct care staff well-being, including burnout, anxiety and depression. The negative emotional reactions which staff experience in response to challenging behaviour may explain how challenging behaviour affects staff well-being. Over time, negative emotional reactions may accumulate, resulting in burnout, anxiety or depression; however, this is yet to be confirmed.

Not all staff become burnt out, anxious or depressed in response to prolonged exposure to challenging behaviour. Evidence suggests that the psychological resources of staff may be important in determining whether or not challenging behaviour affects their psychological well-being. A number of potentially significant psychological resources have been investigated, but the coping strategies of staff have received most research attention. Collectively, these studies suggest that staff who employ problem-focussed coping strategies are less likely to become burnt out, anxious or depressed, than staff who cope by attempting to avoid their emotions.

1.1 Introduction

It is widely accepted that working with people with learning disabilities can be stressful for direct care staff (e.g. Carr, Taylor & Robinson, 1991; Dyer & Quine, 1998; Hastings, 2005; Rose, 1995). Survey data has suggested that as many as one-third of staff members in adult services may experience stress levels indicative of a mental health problem (Hatton et al., 1999a). In addition to adverse effects on staff mental and physical health, staff stress can impact on the delivery and quality of services for people with learning disabilities. Stress has been linked to staff turnover (Hatton & Emerson, 1993) and absenteeism which affects the consistency of care of children and adults with learning disabilities. Moreover, there is evidence to suggest that staff under stress engage in fewer positive interactions with clients (Lawson & O'Brien, 1994; Rose, Jones & Fletcher, 1998) and in extreme cases lose all sensitivity for their clients. Consequently, factors associated with measures of staff well-being have been subject to significant research attention in recent years. A unifying aim of this body of work is an understanding of variables associated with staff well-being which can be targeted through intervention. Three broad classes of variable have emerged as significant to the current understanding of staff well-being, namely organisational/service characteristics, client characteristics and individual staff member characteristics (Mitchell and Hastings, 2001).

Organisational/service level characteristics (for example, lack of control, work load and role conflict) emerged as significant in investigations into staff stress in institutional settings for adults with learning disabilities (Rose, 1995). Later studies, which have investigated correlates of staff well-being in community facilities, have demonstrated that organisational factors continue to be a significant source of staff stress. For example, Dyer and Quine (1998) reported a number of relationships between organisational variables, including role conflict, role ambiguity, role overload, non-participation in decision making, and measures of job satisfaction and burnout. Similarly, Hatton et al. (1999b) identified organisational factors such as role ambiguity, role conflict and lack of staff support as factors in staff distress.

Studies of client characteristics have focussed on challenging behaviours (Bersani & Heifetz, 1985; Bromley & Emerson, 1993; Jenkins, Rose & Lovell, 1997)) and skill deficits of people with learning disabilities as significant sources of staff stress (Dyer & Quine, 1998). Both adults and children with learning disabilities may display challenging behaviours including self-injury and physical aggression, the severity and frequency of which can be extremely distressing for staff who are exposed to them on a daily basis. A number of studies have found evidence for an association between challenging behaviour and staff well-being (e.g. Bersani & Heifetz, 1985; Bromley & Emerson,

1995; Jenkins et al., 1997), whilst Hastings (2002) proposed that problem behaviours are causally related to staff stress.

Individual staff member characteristics are the final group of variables which have been linked to staff well-being measures (Hastings, 2005). Understanding why, and under what circumstances, challenging behaviour affects staff well-being has been recognised to be of significant theoretical and practical importance (Hastings, 2002). A number of studies have investigated the role of staff emotional reactions to challenging behaviour (e.g. Mitchell & Hastings, 2001; Rose et al., 2004) in staff well-being. These studies have presented evidence which supports the proposal that negative emotional reactions to challenging behaviour may mediate the impact of challenging behaviours on staff stress (Hastings, 2002). In addition to emotional factors, the potential role of psychological resources, for example coping styles (Hastings & Brown 2002a), domain specific self-efficacy (Hastings & Brown, 2002b), personality variables (Rose, David & Jones, 2003) and attributions towards challenging behaviour (Snow, Langdon & Reynolds, 2008) in the development of staff stress have been explored. In a recent theoretical paper, Hastings (2005, p.215) identified the exploration of "psychological variables that may act as risk or protective factors in the development of staff stress responses to problem behaviour" as a priority for future research within special education settings.

Despite the potential significance of both emotional and psychological variables in understanding how children's challenging behaviour may affect staff well-being in special education settings, a search revealed that to date there has been no attempt to provide an in-depth review of research findings exploring relationships between these variables. In response to this, the current paper seeks to answer the question: Are staff characteristics important in understanding why and how challenging behaviour impacts on the well-being of direct care staff working with children with intellectual disabilities? In answering this question, the current paper argues that client challenging behaviour is associated with care staff stress; that care staff emotional responses to challenging behaviour may be important in understanding why challenging behaviour affects the well-being of care staff; and that individual psychological differences between care staff may also be important in understanding how and why challenging behaviour impacts on staff well-being.

1.2 Methodological Considerations

To answer the question posed in this paper, a search of the literature was conducted for published papers on staff well-being between 1995 and 2008 using PsycINFO. The following terms were used for this search: *stress, burnout, care staff, special education, intellectual disabilities, learning disabilities, challenging behaviour* and *psychological well-being*. The search was followed up by searching the

bibliographies and citing articles of all identified studies, for additional papers that met the following search criteria. Studies were included in the review if they addressed relationships between client characteristics and/or staff characteristics and/or staff well-being measures. Studies addressing solely organisational/service level correlates of staff well-being (such as work load, role ambiguity and lack of staff support), were excluded from the review because they do not provide information about whether, or how, client challenging behaviour impacts on staff well-being.

There is currently no theoretical distinction in the literature between stress related to caring for children or adults with learning disabilities. Moreover, the literature relating specifically to care staff in children's services is limited. For this reason, studies of staff in both adult and child services have been included in this review. The term 'client' is therefore used with reference to both adults and children with intellectual disabilities in this paper. Many of the pressures faced by care staff working in residential provisions for children may be similar to those faced by parents of children with learning disabilities. Consequently, studies which have investigated the correlates of parental well-being were included. A significant cross-referencing between staff and parent well-being literatures was taken as theoretical justification for this decision. Studies addressing correlates of family functioning in addition to parental stress (for example, the marital relationship, subjective feeling of care giving burden, family

relationships and life satisfaction) were not included in the review as they were not considered to be of any direct relevance to employed care staff.

Comparison of findings from studies investigating correlates of staff well-being is made difficult by the large number of outcome measures which have been investigated (stress, burnout, anxiety, depression and general measures of mental health) and difficulties with defining 'stress' (Rose, 1997; Hastings, Horne & Mitchell, 2004). A brief description of the most common measures has been included to inform later discussion of associations between these variables and client and staff characteristics.

Stress, although poorly defined, is generally viewed in the context of the learning disability literature as resulting from a transactional process between environmental context and the individual (Lazarus & Folkman, 1984, as referenced in Jenkins et al., 1997; Rose & Rose, 2005 and Hastings, 2005). Lazarus and colleagues propose that an individual will only become stressed by a potential stressor if they perceive it to be threatening. This theory has been recognised as being of particular appeal in understanding mechanisms by which staff members may become stressed as a result of exposure to challenging behaviour (Jenkins et al., 1997).

Hastings et al. (2004) asserted that no clear consensus has emerged in the intellectual disability literature about the most relevant conceptualisation of stress for intellectual disability research, but one

concept that has received significant research attention is that of burnout. Burnout can be viewed as the effects of persistent stressors on staff in helping professions (Aitken & Schloss, 1994). The most established measure of burnout, the Maslach Burnout Inventory (MBI, Maslach, Jackson & Leiter, 1996) conceptualises burnout as a syndrome of emotional exhaustion, depersonalisation of clients and reduced feelings of personal accomplishment. Despite a significant number of studies employing burnout as a measure of staff well-being (see Skirrow & Hatton, 2007 for a review) it was not until recently that the applicability of the components of burnout to staff working in intellectual disability services was investigated. Hastings et al. (2004) carried out a factor analytic study of the MBI with one hundred and eighty-four staff working in community services for adults with intellectual disabilities. The analyses undertaken supported the three subscales of the MBI for this group of staff.

Anxiety and depression are two further variables which have been regularly employed in the staff well-being literature as indicators of staff well-being or stress. Anxiety can be viewed as an immediate reaction to the difficulties experienced as a result of working with people with intellectual disabilities. In contrast, depression is generally viewed as being more long-term in nature (Jenkins et al., 1997).

Comparison of relationships between predictor variables and staff well-being is complicated by the number of different dependent variables which have been used as indicators of staff well-being (which

include burnout, anxiety and depression).   It is not the intention in the current paper to further explore the relationships between these dependent variables, but simply to highlight that studies employing a number of different measures of staff well-being have been included in the current review. In drawing broad conclusions about factors associated with staff well-being, the differences between the various dependent variables (i.e. burnout, anxiety and depression) which have been used to measure well-being must be borne in mind.

1.3 Client Characteristics and Staff Well-Being

The question posed by this paper (are staff characteristics important in understanding why and how challenging behaviour impacts on the well-being of direct care staff working with children with intellectual disabilities?) makes the assumption that client challenging behaviour is causally related to the well-being of direct care staff. The following section reviews evidence from staff self-report studies and from studies which have included an objective measure of exposure to challenging behaviour.   Together these studies provide robust evidence for an association between client challenging behaviour and staff well-being, however, evidence for a causal relationship between these variables is limited (Hastings, 2002).

1.3.1 Self-Report Studies

Hatton, Brown, Caine and Emerson (1995) investigated self-

reported stressors among sixty-eight direct care staff working in two networks of small staffed houses for adults with learning disabilities. Staff were asked to complete questionnaire measures of work related sources of stress and client related sources of stress, a short questionnaire concerning ways of coping, an inventory concerning physical and emotional health, a single question about their work-related stress and a measure about the impact of stress on lifestyle. Of interest to the current argument was the finding that, for both networks of staff, violent user behaviour was rated as a significant source of stress. In one staff network only, unpleasant user habits also emerged as a significant source of stress. In order to investigate relationships between stressors, coping strategies and stress-related outcomes, two multiple regression analyses using scores on the measure of physical/emotional health and the perceived work stress scale as dependent variables were undertaken. Client related sources of stress were not associated with physical/emotional health, but analysis revealed that violent user behaviour was associated with high levels of perceived work stress ($\beta = 0.42$).

Support for the findings of Hatton et al. (1995) was provided by a further study employing staff self-report measures. Dyer and Quine (1998) obtained questionnaire data from eighty direct care staff in a learning disability service of a local community trust. The questionnaire gathered information under four broad section headings. The first required basic background information about the nature of their role

and included a scale designed to measure job satisfaction. The second

addressed features of work that act as potential stressors upon staff.

Measures of role conflict and ambiguity (Rizo, House & Lirtzman, 1970,

as cited in Dyer & Quine, 1998) were included, as were statements

concerning occupational demands. The third group of questions were

concerned with aspects of the role that care staff experienced as

supporting or constraining, whilst the fourth section contained

questions to gather personal and demographic information about the

participants. Using principal components analysis, three main factors

were formed from the job demand responses. Resident characteristics

was one of these factors, reportedly explaining 25.2 percent of the

variance. All of the items loading onto this factor referred to either

characteristics or behaviour of clients. Furthermore, correlations

between all of the measures taken revealed that burnout was positively

correlated with resident characteristics (r = 0.26).

Rose (1999) similarly reported findings from a staff self-report

study suggestive of an association between client characteristics and

staff well-being. The participants, two hundred and sixteen staff

working in community residential services for adults with intellectual

disabilities, completed a measure of demands and supports known to

be common in learning disability services. A short, eight item,

questionnaire which measures anxiety and depression (Thoughts and

Feelings Questionnaire, Fletcher (1989) as cited in Rose, 1999) was

utilised as the measure of staff well-being. Factor analyses were carried

out on both the demand and support items, which revealed a demand factor that loaded heavily on client characteristics. This factor was entered into separate regression analyses for both anxiety and depression and made a significant contribution to each.

The findings outlined thus far are suggestive of the importance of client characteristics, and particularly challenging behaviours, in determining staff well-being as measured by a variety of outcome variables. The reliance on self-report measures and thus the lack of any direct measurement of challenging behaviour in these studies however, limits the conclusions which can be drawn about the relationships between these variables (Hastings, 2002; Hastings & Brown, 2002b). More methodologically robust evidence for an association between challenging behaviour and staff well-being is provided by a number of studies which have provided direct measurement of exposure to challenging behaviour (Hastings, 2002).

1.3.2 Studies Measuring Exposure to Challenging Behaviour

Jenkins et al. (1997) compared the well-being of staff in community residences for people with learning disabilities who exhibit challenging behaviour, with that of staff not working with challenging behaviour, as determined by the opinion of a clinical psychologist. As in the study by Rose (1999), anxiety and depression, assessed by the Thoughts and Feelings Questionnaire (Fletcher, 1989, as cited in Rose, 1999), were employed as measures of staff well-being. Analysis

revealed significantly higher levels of anxiety in staff working with clients whom the clinical psychologist believed exhibited challenging behaviour, than in staff working in residences where challenging behaviour was not considered a feature. A difference between groups was not found for depression.

In addition to the clinical psychologist's decision about the presence or absence of challenging behaviour, an objective measure of client challenging behaviour was obtained using a standardised assessment. On the basis of this assessment, a significant number of the clients in the houses assigned to the non-challenging behaviour group (on the basis of the clinical psychologist's opinion) were considered to present with some degree of challenging behaviour. This casts some doubt over the validity of the finding that challenging behaviour is related to staff well-being when an objective measure of exposure to challenging behaviour is employed.

More convincing evidence of an association between client behaviour and staff well-being is found in a recent study by Hastings and Brown (2002b). In this study, staff self-report of exposure to challenging behaviour was used as the direct measure. Staff employed in three special schools for children with learning disabilities were asked to rate their exposure to aggressive forms of challenging behaviour over the preceding month. Distinctions were drawn between aggression directed at people, objects, or the child them self (self-injurious behaviour); between actual experience of aggressive behaviour and

witnessing of aggression; and between physical and verbal forms of aggression. Burnout (as measured by the MBI – Educators' Survey, Maslach, Jackson & Leiter, 1996) was used as the measure of staff well-being. Analysis entailed the generation of regression models for each of the dimensions of burnout (emotional exhaustion, depersonalisation and personal accomplishment). For both emotional exhaustion and depersonalisation dimensions of the MBI, exposure to challenging behaviour accounted for a significant proportion of the variance. The study therefore provided evidence that children's challenging behaviour is associated with burnout in special education staff. Hastings (2002) argues, however, that it is possible that variables untested by Hastings and Brown (2002b) may explain the relationship between challenging behaviour and burnout in the study.

Direct measurement of challenging behaviour has not consistently produced findings supportive of a relationship between client characteristics and staff well-being. Murray et al. (1999) investigated relationships between client assault and staff sickness levels in a mixture of qualified and unqualified staff working in a residential unit for adults with intellectual disability and severe challenging behaviour. A series of correlations between verbal threats of assault, attempted physical assault and actual physical assault, with short and long term periods of staff sickness revealed no significant relationships. The failure of this study to demonstrate a relationship

between assault levels and staff absenteeism may have resulted from a number of methodological difficulties. The reliability of staff recording of incidents of assault was identified by the authors to be a possible source of difficulty, whilst staff absenteeism alone, without any measure of self-reported staff stress may not have been an accurate measure of staff well-being (Murray et al. 1999).

1.3.3 Summary

In summary, evidence from studies investigating self-reported stressors and from those which have obtained direct measures of exposure to challenging behaviour provide relatively robust evidence of an association between the challenging behaviour of people with learning disabilities and the well-being of staff who care for them. Indeed, the findings by Murray et al. (1999), which failed to demonstrate a relationship, can be explained by a number of methodological limitations. A relationship between child behaviour and adult stress has also been demonstrated in the parenting literature. Parents of children with intellectual disabilities who exhibit challenging behaviour have been shown to experience higher levels of stress than parents of children with intellectual disabilities who do not (Baker et al., 2003; Abbeduto et al., 2004).

Despite the evidence for an association between challenging behaviour and staff well-being, it has been argued that studies to date provide only weak evidence in support of a causal relationship

(Hastings, 2002). Hastings (2002) argued the need for a logical mechanism to explain the relationship between two variables as a necessary criterion for causality and proposed that negative emotional reactions to challenging behaviour may provide such a mechanism. Specifically, it was argued that negative emotional reactions to challenging behaviour may mediate the relationship between challenging behaviour and staff stress.   Staff emotional reactions may therefore be crucial to understanding why service user challenging behaviour impacts on the well-being of direct care staff. The following section reviews the empirical evidence for the role of emotional reactions in the development of staff stress and examines the evidence for Hastings' (2002) hypothesis.

1.4 The Role of Emotions

Interest in the role of emotions in the development of staff stress emerged from a number of studies in which staff reported experiencing a range of negative emotional reactions in response to challenging behaviour (e.g. Bromley & Emerson, 1995; Hastings, 1995; Hastings & Remington, 1995). Subsequent studies have explored these emotional reactions, whilst a second, smaller group of studies have investigated whether these negative emotional reactions are associated with care staff well-being. The following section reviews these two groups of studies and argues that staff experience a range of negative emotional

reactions to challenging behaviour and that these negative emotional reactions are associated with the well-being of care staff. The empirical evidence for Hastings' hypothesis (Hastings, 2002) that negative emotional reactions mediate the relationship between client challenging behaviour and care staff well-being is also discussed.

1.4.1 Emotional Reactions to Challenging Behaviour

Bromley and Emerson (1995) obtained information about staff emotional reactions to challenging behaviour as part of a large scale study of the characteristics and needs of, and service responses to, people with learning disabilities. Staff responsible for seventy individuals with learning disabilities, who had been assigned to one of four groups dependent on the topography of their challenging behaviour (aggression, self-injury, destructiveness and other), were asked to complete questionnaires. As part of the questionnaire, staff were asked to rate what proportion of the staff team they believed usually experienced a number of negative emotions (anger, annoyance, despair, disgust, fear and sadness) in response to incidents of challenging behaviour. Analysis revealed a significant interaction between the type of challenging behaviour and emotional reaction. Staff reported, for example, that they believed that 41% of staff experienced feelings of annoyance in response to aggressive challenging behaviour. High levels of sadness were reported for all types of challenging behaviour (aggression: 38%; self-injury: 38%;

destructiveness: 39%; other: 26%). Moreover, significant levels of despair were reported in response to self-injurious behaviour (32%) and destructiveness (33%). The findings thus suggested, that staff experience a range of emotions in response to challenging behaviour and that different emotions may be experienced depending on the nature of the challenging behaviour.

Further evidence that staff experience a range of emotional responses to challenging behaviour can be found in studies looking at helping behaviour in learning disability care staff. In attempts to test the applicability of Weiner's attributional model of helping behaviour (Weiner, 1980, 1986, as cited in Dagnan, Trower & Smith, 1998) a number of authors have obtained information about emotional reactions (e.g. Bailey, Hare, Hatton & Limb, 2006; Dagnan et al., 1998; Stanley & Standen, 2000). As in the study by Bromley and Emerson (1995), Dagnan et al. (1998) provided staff with a limited list of feelings (angry, disgusted, sympathetic, pity, anxious, depressed, happy, loving, relaxed). Staff were asked to rate the extent to which they experienced each emotion for six examples of challenging behaviour. A total score for each emotion was calculated and the totals were subjected to factor analysis which revealed a two factor solution. Anger, disgust, anxiety and depression positively loaded onto a 'negative emotion' factor, whilst relaxed loaded negatively. The second factor was labelled 'positive emotion,' onto which sympathy, pity and loving loaded positively. The study therefore provided evidence that staff not only

experience a range of negative emotions, but that challenging behaviour also prompts a number of positive emotions in learning disability care staff.

Although both Bromley and Emerson (1995) and Dagnan et al. (1998) demonstrated that care staff experience emotional reactions to challenging behaviour, these studies explored a limited number of emotions. Moreover, these emotions had been divided into positive and negative scales, but other dimensions of emotion had not been considered (Mitchell & Hastings, 1998). In response to these limitations, Mitchell and Hastings (1998) developed a measurement tool to aid further research into emotional reactions to challenging behaviour.

In development of the tool, a list of eighteen emotions was initially generated from interviews with staff and from literature about responses to assault in psychiatric settings. Care staff were asked to rate separately their experience of each emotion in response to aggressive challenging behaviour directed towards themselves and towards others. Factor analysis revealed a final scale containing sixteen items loading onto two subscales, namely depression/anger and fear/anxiety. High levels of internal consistency (Cronbach's alpha co-efficients: fear/anxiety = .82; anger/depression = .85) and test-retest reliability (depression/anger: $r = .74$; fear/anxiety: $r = .81$) were reported for both subscales (Mitchell & Hastings, 1998). Since its development, the Emotional Reactions to Aggressive Challenging

Behaviour scale has been employed in the vast majority of studies into the emotional reactions of care staff.

One such study was that undertaken by Mossman, Hastings and Brown (2002), which investigated staff emotional responses to self-injurious behaviour. The authors asserted that previous research (for example, Bromley & Emerson,1995) establishing that care staff experience negative emotions in response to challenging behaviour did not take "in situ" measurements of emotional reactions. These studies have relied on staff emotional reactions to written vignettes of challenging behaviour or to previously experienced/witnessed challenging behaviour. Mossman et al. (2002) attempted to obtain a more ecologically valid measure of staff emotional reactions by using video stimuli. A strength of the study's methodology was the inclusion of a control group in which participants' emotional reactions to a video stimulus illustrating no self-injury was compared with three conditions in which self-injury was depicted. In each of the three self-injury conditions, the function of the behaviour differed in order to allow investigation of the role of behavioural function on staff emotional reactions. In the first condition self-injury was maintained by attention, in the second by escape/avoidance and in the third self-injury was not related to environmental contingencies.

Analysis revealed that exposure to video vignettes depicting self-injurious behaviour produced significantly more negative emotional reactions from staff than exposure to the control video, depicting no

self-injury. Specifically, higher scores on both fear/anxiety and depression/anger subscales of the Emotional Reactions to Aggressive Challenging Behaviour scale were reported in videos depicting self-injurious behaviour maintained by escape/avoidance than for the video depicting no self-injury. The video depicting self-injury not maintained by environmental contingencies and that showing self-injury maintained by attention, both prompted significantly higher levels of depression/anger emotional responses when compared to the no self-injury condition. Significant differences in levels of negative emotional reaction to challenging behaviour were also reported between the three self-injury conditions. Staff who observed self-injury maintained by escape/avoidance reported higher levels of fear/anxiety and depression/anger than those observing self-injury not maintained by environmental contingencies. Furthermore, reported levels of depression/anger were higher in response to self-injurious behaviour maintained by escape/avoidance than attention. The results obtained using this controlled comparison methodology strengthened the evidence that care staff experience negative emotional reactions to challenging behaviour. Moreover, the study offered the first suggestion that the nature of negative emotional reactions may be associated with the function of behaviour.

Hastings et al. (2003) extended the findings of Mossman et al. (2002) by considering the effect of staff experience in working with

challenging behaviour, and the severity of self-injury, on the emotional responses of care staff. In this study, videos depicting self-injury maintained by either attention or escape/avoidance were used. Severity was manipulated by providing participants with information, prior to viewing the videos, about the level of injury caused by the behaviour. Analysis revealed that staff negative emotional reactions differed according to both staff experience levels and the severity of the self-injury. Students reported experiencing higher levels of negative emotions than more experienced staff. Whilst staff who believed they were observing more severe forms of challenging behaviour reported experiencing more negative emotions than staff believing that the depicted self-injury was more mild. Furthermore, students informed that they were observing severe self-injury reported more negative emotional reactions than students in the mild self-injury condition. These results provided further evidence that care staff experience significant negative emotional reactions in response to client behaviour. When combined with the findings of Hastings et al. (2003), these studies suggest that, in response to self-injury at least, negative emotional reactions are affected by the function of self-injury, the severity of self-injury and staff experience levels.

Thus far, this section has provided significant evidence that staff experience negative emotional reactions in response to client challenging behaviour. In order for these negative emotional reactions to mediate the relationship between the challenging behaviour of

people with learning disabilities and staff well-being, as hypothesised by Hastings, negative emotional reactions to challenging behaviour must also be associated with staff well-being (Hastings, 2002). Evidence for an association between these variables has been reported in a limited number of studies.

1.4.2 Negative Emotional Reactions and Staff Well-Being

Initial evidence for the role of emotions in the development of staff stress was reported by Hatton et al. (1995). As previously described (see section on client characteristics and staff well-being) the study investigated self-reported stressors among direct care staff in two networks of staffed houses for adults with learning disabilities. Analysis revealed that the personal emotional impact of caring for people with challenging behaviour explained a significant proportion of the variance in perceived work stress. The study was designed to explore relationships between self-reported stressors and stress-related outcomes and not specifically to investigate the role of emotions in staff stress. Consequently, for the purpose of the current discussion, the findings simply provided initial evidence that staff report personal emotional responses to challenging behaviour and that these may be significant to the development of work-related stress.

Two subsequent studies have investigated whether the emotional reactions of care staff are predictive of their reported burnout. Mitchell & Hastings (2001) asked eighty-three care staff from

community residences for adults with learning disabilities to complete

questionnaires about their emotional reactions to challenging

behaviour (the Emotional Reactions to Aggressive Challenging

Behaviour scale, Mitchell & Hastings, 1998) and their level of burnout as

measured by the MBI (Maslach et al., 1996). Stepwise regression

procedures were employed to investigate factors predictive of

emotional exhaustion, depersonalisation and personal accomplishment

aspects of burnout. Emotional reactions to challenging behaviour were

not reported to be predictive of personal accomplishment, but

depression/anger emotional reactions were the largest predictor of

both emotional exhaustion ($\beta = .41$) and depersonalisation ($\beta = .30$).

The study therefore provided evidence that depression/anger related

reactions to challenging behaviour are predictive of emotional

exhaustion and depersonalisation aspects of burnout. The relatively

low response rate in the study may have potentially affected the

validity of the findings if, for example, care staff who were experiencing

higher levels of burnout were more reluctant to return questionnaires

(Mitchell & Hastings, 2001). Consequently results of the study required

replication.

Rose et al. (2004) replicated the finding of Mitchell and Hastings

(2001) in two separate studies. In the first study, one hundred and one

care staff completed the MBI (Maslach et al., 1996) and the Emotional

Reactions to Aggressive Challenging Behaviour Scale (Mitchell &

Hastings, 1998). Correlation coefficients were calculated for

associations between scores for the depression/anger and anxiety/fear subscales of the emotional reactions questionnaire with the three dimensions of burnout (emotional exhaustion, depersonalisation and personal accomplishment). Depression/anger emotional reactions were significantly correlated with both emotional exhaustion ($r = 0.59$) and depersonalisation ($r = 0.50$). Fear/anxiety emotional reactions were also associated with the same two aspects of burnout (emotional exhaustion: $r = 0.28$; depersonalisation: $r = 0.34$). Negative emotional reactions were not correlated with personal accomplishment.

In the second study (Rose et al. 2004), ninety-nine care staff who worked with adults with intellectual disabilities who exhibited challenging behaviour were presented with three written vignettes of challenging behaviour. For each vignette, staff were asked to rate four negative emotions (anger, sadness, fright and disgust). As in the previous study, staff were also asked to complete the MBI. Correlations between a total negative emotion score and the three aspects of burnout revealed a similar pattern of results to those reported in previous studies. Negative emotion was positively correlated with both emotional exhaustion ($r = 0.31$) and depersonalisation ($r = 0.37$), but not with personal accomplishment.

The findings of Mitchell and Hastings (2001) and Rose et al. (2004) provide strong evidence for an association between negative emotional reactions to challenging behaviour and emotional exhaustion

and depersonalisation aspects of burnout. To date, no studies have investigated whether negative emotional reactions are similarly associated with other measures of staff well-being, such as anxiety or depression. Moreover, the regression analyses undertaken by Mitchell and Hastings (2001) indicated that depression/anger responses were predictive of burnout, whereas the analyses employed by Rose et al. (2004) simply showed a correlation. The findings of Mitchell and Hastings therefore require replication. In addition, although Mitchell & Hastings (2001) demonstrated that depression/anger responses were predictive of burnout, the regression model tested only a limited number of predictor variables. The extent to which negative emotional reactions to challenging behaviour would be predictive of burnout, had a larger number of possible variables been included in the regression analysis, remains unknown. Further exploration of the exact nature of the relationship between emotional reactions to challenging behaviour and staff well-being is therefore needed.

1.4.3 Summary

   To conclude, this section has provided evidence that staff experience negative emotional reactions in response to incidents of challenging behaviour and that staff emotional reactions are associated with levels of staff burnout. Hastings (2002) proposed that negative emotional reactions may mediate the relationship between challenging

behaviour and staff well-being. It was opined that staff frequently experience negative emotional reactions to challenging behaviour and that these reactions combine over longer periods, resulting in staff stress/burnout. Although this hypothesis seems intuitively appealing on the basis of the findings reported in this section of the review, no empirical studies were found which have tested this hypothesis. Further research into the role of emotional reactions in the development of staff stress should not only aim to clarify the direction of relationships, but also to test Hastings' mediation hypothesis.

1.5 Psychological Factors

Investigation into the causes of stress and burnout in carers of children and adults with learning disabilities and challenging behaviour has not been limited to staff emotional reactions. The roles of psychological factors in staff and parent well-being have also received significant research attention. A range of potentially significant factors have been explored, which include coping strategies (Hatton & Emerson, 1995; Hatton et al., 1994; Hatton et al., 1999b; Mitchell & Hastings, 2001; Hastings & Brown, 2002b), self-efficacy (Hastings & Brown, 2002a; Hastings & Brown, 2002c), acceptance and mindfulness (Lloyd & Hastings, 2008), personality variables (Rose et al., 2003) and causal beliefs and attributions about challenging behaviour (Snow et al., 2008).

To date there has been no attempt to establish the relative importance of these factors or to explore how they may interact to predict well-being. There is merely the suggestion in the literature that psychological resources may affect both emotional reactions to challenging behaviour and the well-being of staff and parents (Hastings, 2005). The final section of this paper, therefore, seeks to review the empirical evidence for the role of these factors in well-being, and more specifically for their role in the development of stress/burnout as a result of exposure to challenging behaviour.   It is argued that coping strategies viewed as maladaptive are associated with stress and burnout; and that these maladaptive coping strategies provide a psychological mechanism for understanding how challenging behaviour impacts on well-being. Studies which have investigated the role of other psychological variables (including self-efficacy and personality variables) in understanding how client challenging behaviour may be associated with staff stress and burnout are also reviewed. Finally, other psychological variables which may also serve as psychological mechanisms for understanding how challenging behaviour affects staff well-being are highlighted in order to identify possible future directions for research.

1.5.1 Associations Between Coping and Well-Being

The role of staff coping strategies and styles in the development of staff stress has been explored in two somewhat disparate literatures.

Hatton and colleagues (see Hatton & Emerson, 1995; Hatton et al., 1994; Hatton et al., 1999b) have investigated staff coping in relation to a range of potential stressors, including organisational/service level characteristics and client characteristics. In contrast, Hastings and collaborators (see Mitchell & Hastings, 2001; Hastings & Brown, 2002a; Hastings & Brown, 2002a; Hastings & Brown, 2002b; Hastings & Brown, 2002c) have focussed more specifically on the associations between coping associated with client challenging behaviour and staff well-being.

In their studies, Hatton and colleagues investigated the role of two aspects of coping, namely *wishful thinking* and *practical coping*, in the development of staff stress. These were identified as potentially significant factors during the development of a measure to assess coping specifically in direct care staff working with people with intellectual disabilities (The Shortened Ways of Coping – Revised, Hatton & Emerson, 1995). Practical coping is viewed as an adaptive strategy and is defined as coping directly with a stressful situation in an attempt to change it. In contrast, wishful thinking is considered to be a maladaptive coping strategy and involves attempts to cope with emotions evoked by stressful situations, rather than with efforts to change the stressful situation itself (Hatton & Emerson, 1995). In a paper reporting the development of the Shortened Ways of Coping (Revised) questionnaire, Hatton & Emerson (1995) published data demonstrating a robust link between wishful thinking coping and stress

related outcomes among direct care staff in services for people with learning disabilities.

Hatton et al. (1995) also explored relationships between wishful thinking and practical coping and a number of staff well-being outcomes (general distress, work stress and the impact of stress on lifestyle). In two multiple regression analyses both distress (malaise) and perceived work stress were positively associated with wishful thinking coping; thus lending further support to the finding that the coping strategy of wishful thinking is positively associated with increased levels of direct care staff stress.

Further evidence for the importance of wishful thinking coping in the development of staff stress was reported in a study which attempted to determine the most significant predictors of staff stress. Hatton et al. (1999b) used path analyses to explore relationships between a number of possible predictor variables (including client related, staff related and organisational sources of stress) and general distress and job strain. Analysis of factors predictive of general distress revealed that the coping strategy of wishful thinking, in combination with two other variables (distress associated with work-home conflict and role ambiguity) accounted for twenty-three percent of the variance. The path analysis revealed that stressors associated with bureaucracy and lack of staff support were indirectly associated with general distress, through an association with wishful thinking.

A similar analysis procedure was carried out to identify factors predictive of job strain. Results revealed that wishful thinking coping and six other variables (stress linked to a lack of staff support, alienative commitment, role ambiguity, stress linked to a low status job and longer contracted hours) were strongly associated with job strain, accounting for fifty percent of the variance in job strain scores. Bureaucracy and lack of staff support were indirectly associated with job strain, through an association with wishful thinking as a coping strategy.

Taken together, the results of the three studies reported by Hatton and colleagues provide significant evidence for the role of wishful thinking coping in the development of direct care staff stress. Moreover, this association appears to be of significance even when a wide range of potential predictors are examined. The path analyses reported by Hatton et al. (1999b) provide evidence that staff use the strategy of wishful thinking in response to organisation/service level stressors such as bureaucracy and lack of staff support. Of interest is the fact that measures of client characteristics did not explain a significant proportion of the variance in the path diagrams of the staff well-being outcomes in the study. It is not possible therefore, to draw conclusions about whether staff employ wishful thinking as a strategy to cope with exposure to challenging behaviour and whether this coping style plays a role in understanding how challenging behaviour affects staff well-being. Future research might address this by limiting

investigation of predictor variables to measures of client characteristics, such as exposure to challenging behaviour.

A second group of studies relating to the coping strategies/styles of direct care staff have specifically addressed how staff cope with challenging behaviours. Mitchell and Hastings (2001) addressed the question of whether challenging behaviour related coping strategies are predictive of staff well-being in a questionnaire study of eighty-three direct care staff working with adults with intellectual disabilities and challenging behaviour. The coping strategies of staff were measured using the COPE inventory (Carver, Scheier & Weintraub, 1989, as cited in Mitchell & Hastings, 2001). The COPE has fifteen subscales representing a broad range of coping strategies. Participants were asked to rate how much they have been using each strategy to cope with aggressive challenging behaviours. In the study, burnout (as assessed by the MBI) was used as the measure of well-being. In an initial stage of analysis, scores for the fifteen COPE subscales were factor analysed. Three factors relating to how staff cope with aggressive challenging behaviour emerged from this analysis. These were termed *adaptive strategies* (e.g. taking action to deal with the behaviours, using support from others and planning), *disengagement coping* (e.g. substance abuse, engaging in displacement activities, giving up the attempt to cope), and *denial coping* (e.g. denying its significance and use of religious coping behaviours) (examples taken from Hastings

& Brown, 2002b). Disengagement coping and denial coping were viewed by the authors to represent maladaptive or emotion focussed coping strategies, whereas adaptive coping strategies were considered to be problem focussed.

Scores on the three coping dimensions were included as predictor variables (along with scores for emotional reactions to challenging behaviour) in a stepwise regression analysis for each of the dimensions of burnout (depersonalisation, emotional exhaustion and personal accomplishment). The analysis revealed that disengagement (alcohol and drug use, behavioural disengagement and mental disengagement) as a way of coping with aggressive challenging behaviour is associated with increased levels of emotional exhaustion and reduced levels of personal accomplishment in care staff. Despite this conclusion, the study did not include a direct measure of exposure to challenging behaviour and thus was not able to provide evidence of whether coping affects the relationship between challenging behaviour and staff well-being (Hastings & Brown, 2002b).

The studies reviewed thus far, provide evidence that the use of maladaptive coping strategies, such as wishful thinking and disengagement coping is predictive of both stress and burnout in direct care staff. In consideration of these findings, Hastings and Brown (2002b) proposed that coping may act to moderate the impact of challenging behaviour on the well-being of care staff or family

members of people with learning disabilities; "if they adopt one approach to coping, then they may be less stressed by challenging behaviours than if they adopt an alternative approach" (Hastings and Brown, 2002b, p.149). The following section reviews the empirical evidence for coping as a moderating variable in the relationships between child problem behaviour and parental wellbeing and client problem behaviour and care staff well-being. It is argued that maladaptive coping strategies provide a psychological mechanism to explain the relationship between challenging behaviour and staff stress and burnout.

1.5.2 Coping as a Moderating Variable

Hastings and Johnson (2001) explored predictors of stress in parents of young children with autism, who were participating in intensive home-based behavioural intervention. One hundred and forty-one parents, who were primarily responsible for the care of their child with autism, completed questionnaires. The questionnaires included measures of the level of the child's autism symptomatology; a measure of parental stress (three subscales were used for the purpose of analysis: pessimism, depression and parent and family problems); and a measure of parental coping strategies. The authors reported an interaction between passive appraisal coping (which includes items related to minimization of response to problems, for example "believing if we wait long enough, the problem will go away")

and children's autistic behaviours in the prediction of parents' pessimism about their children's future. When the child had higher levels of autistic symptomatology, parents who reported higher levels of passive appraisal coping also reported higher levels of pessimism. In contrast, when the child had lower levels of autistic symptomatology, the level of passive appraisal coping reported did not affect reported levels of pessimism. The study therefore provided initial evidence that an aspect of parental coping moderates the impact of child behaviour on parental stress.

Hastings and Brown (2002b) investigated whether the coping strategies employed by staff in schools for children with developmental disabilities affect the established relationship between challenging behaviour and staff burnout. The participants in the study were a mixture of qualified special education teachers and teaching assistants with no specific special education qualifications. Participants were asked to report on their experience of aggressive challenging behaviour during the preceding month, and to complete questionnaires to assess strategies for coping with challenging behaviour (Brief Cope, Carver, Scheier, & Weintraub, 1989, as cited in Hastings & Brown, 2002b) and burnout (Maslach Burnout Inventory, Educator's version).

Of interest to the current argument is the finding that at low levels of exposure to challenging behaviour the type of coping strategy employed by staff is not related to emotional exhaustion. In contrast,

at high levels of exposure to challenging behaviour, staff who employ maladaptive coping strategies report significantly more emotional exhaustion than staff who use adaptive coping strategies.

Hastings and Brown (2002b) thus provided the first evidence that more frequent use of maladaptive coping strategies (self-distraction, denial, venting of emotions, substance use, behavioural disengagement and self-blame strategies) moderates the relationship between exposure to challenging behaviour and emotional exhaustion burnout in staff working with children and young people with intellectual disabilities. Maladaptive coping can therefore be viewed as a possible psychological mechanism to explain the relationship between challenging behaviour and staff stress and burnout. The coping strategies employed by staff may explain why challenging behaviour impacts on the well-being of some care staff more than others.

1.5.3 Exploration of Other Psychological Mechanisms

Coping strategies are not the only psychological variables to have been considered as a potential mechanism to explain the relationship between challenging behaviour and carer well-being. Hastings and Brown (2002a) have also investigated whether domain specific self-efficacy may also be important in understanding how challenging behaviour affects well-being. Domain specific self-efficacy was defined by the authors to be parents' "perception of efficacy in

relation to their child's behaviour problems" (Hastings & Brown, 2002a, p. 224). In the study, parents of children with autism completed self-report measures of their self-efficacy (assessing feelings of confidence, control and satisfaction in dealing with their child's behaviour problems), and of their levels of anxiety and depression. Teachers of the children whose parents were participating in the study were asked to complete a checklist as an objective measure of child problem behaviour. Analysis of the data revealed that self-efficacy mediated the relationship between child behaviour problems and mothers' anxiety and depression. Specifically, the relationships between child problem behaviour and anxiety and depression became non-significant when mothers' self-efficacy was introduced into the regression equation. In contrast, self-efficacy moderated the relationship between child behaviour problems and fathers' anxiety. At high levels of child behaviour problems, fathers with high self-efficacy were less anxious than those with low self-efficacy. The study therefore provided evidence that self-efficacy may also provide a psychological mechanism explaining how challenging behaviour has its affect on staff well-being.

Individual differences between staff in relation to the personality dimensions of extraversion and neuroticism have also been considered to be potentially important in understanding how challenging behaviour affects well-being. Rose, David & Jones (2003) investigated whether the relationship between job demands arising

from caring for people with learning disabilities and care staff psychological well-being is moderated by these personality variables. Consistent with previous research, the findings revealed a significant correlation between perceived job demands and stress (r = 0.22). Moreover, neuroticism was reported to moderate the relationship between job demands and psychological well-being. Specifically, at high levels of job demand, staff high on neuroticism reported the lowest levels of psychological well-being. In contrast, at high levels of job demand, staff who were low on neuroticism reported the highest levels of psychological well-being. The participants in the study were all employed by one service provider and no replication in another group of participants has been reported. Despite these factors, the findings provided initial evidence that the personality dimension of neuroticism mediates the relationship between job demands and staff well-being. The study did not report information about the behavioural characteristics of service users or include details of the specific job demands reported by staff. Consequently, the study did not enable any conclusions to be drawn about whether neuroticism is of importance in understanding how challenging behaviour of clients affects staff well-being.

Investigation into potential psychological mechanisms explaining the relationship between challenging behaviour and staff well-being is in its infancy. To date, exploration of potentially significant factors has been limited to coping and self-efficacy in the studies outlined above.

It is possible however, that a number of other psychological or cognitive factors may affect both the extent to which staff experience negative emotional reactions to challenging behaviour and become stressed or burnt-out (Hastings, 2005). The final two studies to be reported in this review have been included as they offer potential future directions in the exploration of psychological mechanisms which may be important in understanding how client challenging behaviour affects staff well-being.

1.5.4 Possible Future Directions for Research

In a recent paper, Lloyd and Hastings (2008) explored whether acceptance, mindfulness and active avoidance coping were associated with anxiety, depression and stress in mothers of children with intellectual disabilities. These variables represent psychological processes which Lloyd and Hastings (2008) argued may be important in understanding how and why parents' psychological well-being may be affected by caring for a child with an intellectual disability. Acceptance has been defined as dealing with the world as it is, without seeking to avoid negative aspects of real experiences (Hayes, Strosahl, & Wilson, 1999). In the context of parenting a child with learning disabilities, being able to accept the child as they are, as well as accepting the difficulties associated with parenting a child with learning difficulties may be important to psychological well-being. Mindfulness refers to a non-judgemental observation and awareness

of the present moment (Baer, 2003). Whilst, avoidant coping can be considered as an active attempt to avoid a stressor or escape from its effects; a process which has been shown to be detrimental to psychological well-being outside of the learning disabilities field (Hayes et al., 1999). In the study, ninety-one mothers of children with learning disabilities completed a number of questionnaires including the Acceptance and Action Questionnaire (AAQ, Bond & Bunce, 2000, as cited in Lloyd & Hastings, 2008), the Mindful Attention Awareness Scale (MAAS, Brown & Ryan, 2003, as cited in Lloyd & Hastings, 2008), items from the Brief Cope (Carver, 1997, as cited in Lloyd & Hastings, 2008) measuring avoidant coping, and measures of anxiety, depression and stress. Analysis revealed that acceptance was strongly negatively correlated with anxiety (r = -0.53) and depression (r = -0.53), and moderately correlated with stress (r = -0.32). Active avoidance coping was moderately positively correlated with anxiety (r = 0.33) and depression (r = 0.36) and more weakly correlated with stress (r = 0.22). Mindfulness was not significantly correlated with any of the outcome variables.

In a further stage of analysis, separate regression models were generated for anxiety, depression and stress. The regression model for anxiety was significant, with acceptance scores explaining the largest percentage of the variance and active avoidance coping a smaller percentage. Similarly, the regression model for depression was significant and again, acceptance and active avoidance coping

explained a significant percentage of the variance. Active avoidance coping and acceptance were also significant predictors in a regression model for maternal stress, but three other factors (autism diagnosis, family deprivation and child behaviour problems) also accounted for significant percentages of the variance in stress scores explained by the model. The findings of Lloyd and Hastings (2008) provided evidence that the psychological processes of acceptance and avoidant coping are associated with psychological well-being in mothers of children with learning disabilities. Further research is warranted to explore whether these variables are similarly important in the development of anxiety, depression and stress in care staff working in services for children and adults with learning disabilities and moreover, whether they may provide a psychological mechanism explaining the association between challenging behaviour and staff well-being.

A final set of factors which may be important in understanding how and why care staff become stressed and burnt out as a result of exposure to challenging behaviour is individual differences between staff in their causal attributions about challenging behaviour. Attribution theory (Heider, 1958, as cited in Snow et al., 2008) posits that people attempt to attribute responsibility for, or find a cause for, events which they witness. Weiner (1979) suggested that people's attributions can be categorized according to the dimensions of locus, stability and controllability. A considerable body of literature exists

which has explored the applicability of attribution theory to understanding care staff's behavioural responses to client challenging behaviour (e.g. Hastings, 1996; Hastings, 1997). Whilst it is beyond the scope of the current paper to review this literature, a recent paper by Snow et al. (2008) has investigated whether the attributions that care staff make about client behaviour are associated with their well-being. Snow et al. (2008) explored the attributions of care staff towards self-injurious behaviour during a semi-structured interview about the causes of self-injurious behaviour. Prior to the interview participants (forty-one direct care staff) read two vignettes depicting self-injury and completed the MBI. Correlations between dimensions of burnout and a number of attribution dimensions were established. Emotional exhaustion burnout was reported to be significantly negatively correlated with the frequency of stable attributions (that the client's self-injurious behaviour results from factors which are unchanging about them), however no other significant associations were reported. The authors recognised that the lack of reported relationships may have resulted from the low levels of burnout reported by the sample and the use of vignettes, rather than a more ecologically valid stimulus (Snow et al., 2008). Given these limitations and in light of the significant relationship between stable attributions and emotional exhaustion, future research might further explore whether causal attributions are important in understanding why and how challenging behaviour of clients affects staff well-being.

1.5.5 Summary

This section has explored the role of psychological variables in understanding how and why client challenging behaviour affects care staff well-being. The studies reviewed provide significant evidence that staff who employ maladaptive coping strategies to deal with the demands associated with their roles are more likely to become stressed, than those with adaptive coping strategies. Moreover, staff whose strategies for coping with client challenging behaviour are emotion focussed, rather than problem focussed, experience higher levels of stress and burnout. Initial evidence has been reviewed which suggests that maladaptive coping moderates the relationship between the challenging behaviour of clients and staff stress. In addition to coping, initial evidence for the role of domain specific self-efficacy and the personality dimension of neuroticism as psychological mechanisms to explain the relationship between job demands and staff stress was reported. In addition to further exploring the roles of these variables, future research may also seek to identify psychological process variables which may be of importance in understanding why and how challenging behaviour affects staff well-being.

1.5 Conclusions

Staff stress and burnout are widely documented as features of

services for people with intellectual disabilities (see Rose, 1995;
Skirrow & Hatton, 2007). Concern for the mental health of staff as
well as for the consistency of care for clients has ensured that staff
well-being has been the subject of significant research attention in
both adult services and in special education settings. Investigation
into factors associated with staff burnout in special schools has
identified children's challenging behaviour as a significant factor
(Hastings & Brown, 2002b); a finding which is in accordance with a
larger body of research in adult services. In recent years, research
attention has moved away from a search for factors associated with
stress and burnout, to ask why and how challenging behaviour is
associated with staff well-being. These questions have prompted
investigations into the possible psychological mechanisms which may
account for the relationship between client challenging behaviour and
staff stress and burnout.

This paper sought to address whether 'staff characteristics,'
broadly interpreted to mean emotional and psychological
characteristics are important in understanding both how and why
challenging behaviour impacts on the psychological well-being of
direct care staff working in services for children with intellectual
disabilities. In answering this question, the current paper has
reviewed research from the adult and child services literature as well
as the parental stress literature. Evidence has been presented which
supports the suggestion that challenging behaviour is associated with

a number of staff mental health outcomes including stress, burnout and anxiety. Hastings (2002) argued that there was limited evidence for a causal relationship between client challenging behaviour and staff well-being as existing research could not rule out the possibility that the association was accounted for by other factors. Future research should aim to confirm whether there indeed exists a causal relationship between client challenging behaviour and staff well-being.

The question of why challenging behaviour in clients leads to staff stress was addressed directly by Hastings (2002). It has been proposed that staff experience negative emotional reactions to challenging behaviour and that these negative emotional reactions accumulate over time to affect staff well-being (see Hastings, 2002; Hastings, 2005). In other terms, emotional reactions to challenging behaviour have been hypothesised to mediate the relationship between challenging behaviour and staff stress. The current paper has argued that two necessary conditions for this hypothesis have been met. Firstly, staff exposure to client challenging behaviour has been associated with negative emotional reactions in a number of studies. Secondly there is some, albeit currently limited, evidence that negative emotional reactions are associated with staff stress. To date, no studies have been reported, however, which have directly tested Hastings' mediation hypothesis. Future research should aim to both strengthen the evidence for the relationship between emotional

reactions to challenging behaviour and staff stress and to test whether negative emotional reactions do act as a mediating variable. A limitation of existing research into the role of emotional reactions to challenging behaviour is that the majority of studies have relied on the same measure of emotional reactions to challenging behaviour (Emotional Reactions to Aggressive Challenging Behaviour scale, Mitchell & Hastings, 1998). Future research may aim to explore the relationships between challenging behaviour and staff emotional reactions and between staff emotional reactions and staff stress, using alternative methods of measuring emotional reactions.

The final section of the current paper has reviewed studies which have investigated possible psychological mechanisms which may explain how challenging behaviour affects staff well-being. Significant evidence for an association between maladaptive, emotion focussed coping strategies such as wishful thinking and disengagement coping and staff stress has been presented. In investigations into parental coping (Hastings & Johnson, 2001) and coping in special school staff (Hastings & Brown, 2002b), the relationship between child challenging behaviour and carer stress, has been shown to be moderated by the type of coping strategies employed by carers. In both studies, exposure to higher levels of challenging behaviour was associated with higher levels of carer stress when carers reported using maladaptive coping strategies. Two major groups of coping studies have been reviewed in the current paper. Although both

groups of authors (Hatton and colleagues and Hastings and colleagues) use the terms 'adaptive' and 'maladaptive' coping strategies and draw a distinction between emotion focussed and problem focussed strategies, there have been no attempts in the literature to explore the similarities and differences between the two most commonly used measures (The Shortened Ways of Coping – Revised, Hatton & Emerson, 1995 and The COPE inventory, as factor analysed by Mitchell & Hastings, 2001). Further exploration of the similarities and differences between these measures would aid comparison of findings across measures.

To date, investigation into other psychological factors which may be important in understanding the relationship between client challenging behaviour and staff well-being is limited. Domain specific self-efficacy has been found to moderate the relationship between child challenging behaviour and father's well-being and to mediate the relationship in mothers. Further research should aim to replicate this finding in other parental samples and explore whether self-efficacy provides a similar psychological mechanism for understanding how challenging behaviour affects the well-being of care staff. Initial evidence was also presented that the personality dimensions of neuroticism mediated the relationship between a broad measure of the job demands associated with care work and staff well-being (Rose et al. 2003). This study therefore offers a further variable which could

be explored as a possible mediating variable in the relationship between challenging behaviour and stress.

Two final studies were identified by the search criteria adopted in the current review. The first (Hastings & Lloyd, 2008) reflects a concern to identify psychological process variables which may explain how and why those caring for children with intellectual disabilities become stressed. The second (Snow et al. 2008) investigated whether staff's attributions about challenging behaviours are associated with their well-being. In conjunction with coping, these factors may be of particular significance in considering how the well-being of staff in services for children with challenging behaviour can be improved.

Challenging behaviour will never be completely ameliorated and will therefore always be a potential source of stress for staff working in special education settings. The psychological variables discussed in the current review may possibly offer a target for intervention which could lead to a reduction in staff stress. Applied psychologists working alongside direct care staff in services for children with challenging behaviour may be able to teach staff to adopt more adaptive coping strategies. They may be able to support staff who engage in avoidant coping behaviours and who have low levels of acceptance through the application of interventions based on Acceptance and Commitment Therapy (ACT) (see Hayes et al., 2006). Moreover, training packages about challenging behaviour may be

developed with an aim of influencing the attributions that staff make about children's problem behaviour. Understanding both how and why challenging behaviour impacts on the well-being of staff is likely to be crucial to improving staff well-being and consequently to improving the care of children with intellectual disabilities and challenging behaviour.

CHAPTER TWO: EXPERIENTIAL AVOIDANCE AS A MEDIATOR IN THE RELATIONSHIP BETWEEN NEGATIVE EMOTIONAL REACTIONS TO CHALLENGING BEHAVIOUR AND STAFF WELL-BEING

Abstract

Direct care staff working with people with intellectual disabilities experience significant burnout and anxiety, which may be associated with the negative emotional reactions which staff experience in response to challenging behaviour. Outside of the intellectual disability field, the effect of aversive experiences has been shown to be mediated by metacognitive factors, such as experiential avoidance, thought suppression and mindfulness.

The present study investigated whether these metacognitive factors provide a psychological mechanism for understanding the relationship between negative emotional reactions to challenging behaviour and reduced well-being in direct care staff in services for people with intellectual disabilities.

A sample of 73 direct care staff in two residential schools for children with intellectual disabilities and severe challenging behaviour completed questionnaire measures of their emotional reactions to challenging behaviour and well-being (as measured by burnout, anxiety and depression), in addition to measures of acceptance/experiential avoidance, thought suppression and mindfulness. Significant correlations were found amongst all study

variables. A composite measure derived by combining acceptance and thought suppression scores mediated the relationships between emotional reactions and burnout, and emotional reactions and anxiety.   Findings are discussed in terms of practical implications for interventions to reduce staff burnout and anxiety.

2.1 Introduction

The challenging behaviours of people with learning disabilities are widely recognised to impact on the psychological well-being of the staff who care for them. Direct care staff have frequently reported challenging behaviour to be a significant source of stress (e.g. Bersani & Heifetz, 1985; Dyer & Quine, 1998; Hatton, Brown, Caine, & Emerson, 1995). Moreover, associations between challenging behaviour and staff stress have been reported in studies employing direct measures of staff exposure to challenging behaviour (Hastings & Brown, 2002b; Jenkins, Rose & Lovell, 1997). A wide variety of psychological well-being measures have been used in the staff stress literature, including measures of anxiety and depression (e.g. Jenkins et al, 1997), but burnout is the most frequently used construct. Burnout is considered to result from prolonged exposure to stressors and is characterised by emotional exhaustion (feeling emotionally over extended by work), depersonalisation of clients (unfeeling and impersonal responses towards clients) and reduced feelings of personal accomplishment (reduced feelings of competence and success at work) (Maslach, Jackson & Leiter, 1996).

Care staff have reported a range of negative emotional reactions in response to exposure to challenging behaviour (Bromley & Emerson, 1995; Hastings, 1995); a finding which has more recently been confirmed by experimental research (Hastings, Tombs, Monzani & Boulton, 2003; Mossman, Hastings & Brown, 2002). There is some

evidence that these negative emotional reactions are associated with increased levels of burnout. Indeed, Hastings (2002) proposed that negative emotional reactions may accumulate over time, eventually affecting staff well-being and mental health. Mitchell & Hastings (2001) first reported that care staff's self-reported feelings of depression/anger were predictive of both emotional exhaustion and depersonalisation aspects of burnout. This finding was replicated and extended in two further studies reported by Rose and colleagues (Rose, Horne, Rose & Hastings, 2004). In the first of the two studies, feelings of depression/anger and feelings of fear/anxiety (subscales of the Emotional Reactions to Aggressive Challenging Behaviour Scale, Mitchell & Hastings, 1998) were positively correlated with both emotional exhaustion and depersonalisation aspects of burnout (Rose et al., 2004). In a second study, a total negative emotional reaction score was positively correlated with emotional exhaustion and depersonalisation. Personal accomplishment was not associated with emotional reactions to challenging behaviour in any of the studies. No studies were found which have explored whether negative emotional reactions to challenging behaviour are associated with other measures of long term psychological well-being or mental-health, such as anxiety or depression.

Hastings (2005) proposed that the psychological resources of staff, for example coping strategies, may affect the extent to which they experience negative emotional reactions to challenging behaviour

and/or experience long term stress or burnout. Numerous studies have reported an association between maladaptive, emotion-focussed coping strategies and staff stress (e.g. Hatton & Emerson, 1995; Hatton et al., 1995; Hatton et al., 1999b; Mitchell & Hastings, 2001). Hatton and colleagues (Hatton et al., 1999b) reported that the emotion-focussed strategy of wishful thinking was predictive of general distress and job strain. Wishful thinking is characterised by attempts to cope with emotions evoked by stressful situations, rather than with efforts to change the stressful situation itself (Hatton & Emerson, 1995). Similarly, Mitchell and Hastings (2001) reported that disengagement coping was a positive predictor of emotional exhaustion burnout, and a negative predictor of personal accomplishment. Like wishful thinking, disengagement coping is considered to be a maladaptive, emotion focussed coping strategy, whereby individuals engage in behavioural disengagement, substance abuse or give up the attempt to cope (see Hastings & Brown, 2002b).

There is evidence that coping strategies affect the extent to which care staff experience burnout as a result of challenging behaviour. Hastings and Brown (2002b) reported that maladaptive coping increased the impact of exposure to challenging behaviour on both emotional exhaustion and depersonalisation aspects of burnout. More recently, wishful thinking has been reported to partially mediate the relationship between work demands (including challenging behaviour) and emotional exhaustion (Devereux, Hastings, Noone,

Firth & Totsika, 2009). Devereux and colleagues argued that a

mediation, rather than moderation, model is more consistent with

current stress theory (Devereux et al., 2009), which proposes that

coping acts as a mediator of the emotional outcome of a stressful

experience (Lazarus, 1999, as cited in Devereux et al., 2009).

Although implicit in these studies, no research to date has explicitly

examined whether coping affects the extent to which staff stress and

burnout is a result of their emotional reactions to challenging

behaviour. The strategies employed by staff to cope with the

emotional reactions experienced as a result of exposure to

challenging behaviour are likely to be important in understanding why

these reactions are associated with stress and burnout in the longer

term.

Research outside of the learning disabilities field, has developed

a significant evidence base for the role of metacognitive factors,

including experiential avoidance, thought suppression and

mindfulness in the development of mental health problems.

Metacognition refers to an individual's awareness of their own

cognitive processes and the subsequent ability to monitor, regulate,

and direct oneself to a desired end.

Experiential avoidance is an escape process that occurs when an

individual is unwilling to remain in contact with private experiences or

the external contexts that occasion them (Hayes, Wilson, Gifford,

Follette & Strosahl, 1996). These internal experiences can include bodily

sensations, emotions, thoughts and memories which the individual

perceives to be aversive (Hayes, Luoma, Bond, Masuda, & Lillis, 2006).

Thought suppression, the process of deliberately trying to stop thinking

a certain thought (Wegner, 1989) is one way in which individuals may

be unwilling to remain in contact with private events and is thus one

aspect of experiential avoidance (Hayes et al., 2004).

In some situations, a degree of experiential avoidance can act as

a self-protective strategy, for example to control feelings of anxiety

during a job interview. Experiential avoidance becomes a disordered

process, when it is applied rigidly and inflexibly such that enormous

time, effort and energy is devoted to managing, controlling or

struggling with unwanted private events (Kashdan, Barrios, Forsyth, &

Steger, 2006).   Acceptance is viewed as an adaptive alternative to

experiential avoidance that involves the active awareness of private

events, without an attempt to change their frequency or form (Hayes

et al., 2006).

In the short-term, experiential avoidance provides relief from

private events and is thus negatively reinforced, but over longer

periods, attempts to avoid uncomfortable private events have been

shown to increase their functional importance (Hayes et al., 2006).

Paradoxically, attempting to inhibit unpleasant thoughts, feelings and

bodily sensations, actually increases the frequency of, and distress

produced by, these same experiences (Kashdan et al., 2006).

Moreover, experiential avoidance disrupts progress towards

meaningful goals because the attainment of important goals often requires the experience of unwanted private events such as anxious thoughts (Kashdan et al., 2006). In the longer-term, experiential avoidance therefore becomes a toxic process, which has been shown to be associated with a number of psychopathology and quality of life measures (see Hayes et al., 2006), including anxiety (Roemer, Salters, Raffa, & Orsillo, 2005) and depression (Tull, Gratz, Salters, & Roemer, 2004). Recent research, within the mental health field, into problem behaviours (aggression, self-harm, alcohol abuse) has revealed experiential avoidance to be a key mediational variable. For example, experiential avoidance (as measured by the Acceptance and Action Questionnaire, AAQ ; Hayes et al., 2004) mediated the effect of anxiety sensitivity on drinking to cope (Stewart, Zvolensky & Eifert, 2000) and the tendency to suppress unwanted thoughts (as measured by the White Bear Suppression Inventory, WBSI; Wegner & Zanakos, 1994) mediated the relationship between negative effect intensity and Borderline Personality Disorder symptomatology (Najmi, Wegner & Knock, 2007).

Organisational psychologists have shown that experiential avoidance is associated with lowered affective well-being at work (Bond & Bunce, 2000, 2003) amongst media and customer service centre staff, but the process has not yet been investigated in the context of staff caring for individuals with learning disabilities. Nevertheless, many emotion-focussed coping strategies are recognised

to involve experiential avoidance (Devereux et al., 2009; Hayes et al., 1996); for example those subsumed within the subscale of wishful thinking, such as imagining a better time or place, or having fantasies about how things might turn out (see Hatton & Emerson, 1995). Given the large evidence base for the role of experiential avoidance in the development of mental health problems and initial evidence that emotion-focussed coping strategies are important in understanding how challenging behaviour affects staff well being, the present study explored experiential avoidance in direct care staff.

Closely related to (the absence of) experiential avoidance is *mindfulness*. Mindfulness refers to the state of being attentive to and aware of what is taking place in the present (Brown & Ryan, 2003). Mindfulness has been investigated in the context of caring for people with learning disabilities. Indeed, Singh et al. (2004) have reported that the happiness of people with profound disabilities is significantly increased when they are cared for by staff who have received mindfulness training. No studies to date, however, have investigated whether mindfulness is associated with the well-being of direct care staff in learning disability services.

Given the importance of metacognitive factors such as experiential avoidance, thought suppression and mindfulness to mental health and findings implicating experiential avoidance and thought suppression as mediating variables, the present study investigated whether these factors would act as mediators in the

relationship between negative emotional reactions to challenging behaviour and staff well-being. The present study employed a cross-sectional design by measuring the study variables simultaneously.   To test for mediation, Baron & Kenny (1986) and Judd & Kenny (1981) suggested computing a series of regressions in which the following conditions should be met. Firstly, the predictor (negative emotional reactions to challenging behaviour) must be correlated with the outcome variable (burnout, anxiety or depression).   On the basis of previous findings (Mitchell & Hastings, 2001; Rose et al., 2004), it was hypothesised that significant relationships would exist between negative emotional reactions to challenging behaviour and emotional exhaustion and depersonalisation aspects of burnout. Previous studies have reported associations between challenging behaviour, as a self-reported source of staff stress, and anxiety (Jenkins, Rose & Lovell, 1997; Rose, 1999) and depression (Rose, 1999). It was, therefore, hypothesised that negative emotional reactions to challenging behaviour would be associated with both anxiety and depression.

The second of Baron and Kenny's conditions for mediation is that the mediator (acceptance, thought suppression or mindfulness) must be correlated with the predictor variable (negative emotional reactions to challenging behaviour). Whilst, the third, is that the mediator (acceptance, thought suppression or mindfulness) must be correlated with the outcome variable (burnout, anxiety or depression),

when controlling for the predictor variable. If these conditions are met, and the effect of the predictor variable (negative emotional reactions to challenging behaviour) on the outcome variable (burnout or anxiety) is no longer significant, then full mediation is established. Although, these metacognitive factors have not been investigated in learning disability care staff previously, a recent study found significant relationships between acceptance, and anxiety, depression and stress in mothers of children with intellectual disabilities (Lloyd & Hastings, 2008). On the basis of these findings it was hypothesised that the relationship between negative emotional reactions to challenging behaviour and staff well-being (as measured by burnout, anxiety and depression) would be mediated by one or more of the metacognitive factors. The exploratory nature of this study meant that more specific hypotheses were not made.

2.2 Method

2.2.1 Participants

Participants were 74 care staff from two residential schools for children with intellectual disabilities, autistic spectrum disorders, and severe challenging behaviour in South Yorkshire. One school had twenty-eight students between 13 and 19 years of age (mean = 16 years) and the other had forty-five students between 9 and 19 years of age (mean = 14 years). Following the approach of Mitchell and Hastings (2001), staff were asked to participate in the study if they

spent the majority of their working day engaged in activities which involve the daily care and supervision of students. Staff whose responsibilities were administrative or managerial were not included in the study. The staff sample comprised 52 females and 22 males; 44 (59%) had a relevant care qualification. Participants ranged in age from 19 to 56 years (mean = 35.43; standard deviation = 10.44) and had worked with children or young people with intellectual disabilities for an average of 5.8 years (range = 0.12 to 17.00 years; standard deviation 3.76).

2.2.2 Staff Questionnaire

Data were collected using a self-report questionnaire (Appendix A) containing four sections. The first section (Appendix A1) asked participants for demographic information about themselves (gender and age), their length of time working with children/young people with intellectual disabilities and any relevant qualifications (see above). The three remaining sections contained measures of emotional reactions to challenging behaviour, the metacognitive factors (acceptance, thought suppression and mindfulness) and staff well-being (burnout, anxiety and depression).

Emotional Reactions to Aggressive Challenging Behaviour Scale (Mitchell & Hastings, 1998)(Appendix A2): Staff were asked to rate, using a 4 point scale, the frequency with which they have experienced each of 15 emotions in response to recent experiences of challenging

behaviour displayed by students. Mitchell and Hastings (1998) derived two subscales through factor analysis: (1) feelings of depression/anger and (2) feelings of fear/anxiety. The subscales both have good internal consistency (a measure based on the correlations between different items on the same test, which assesses whether several items that propose to measure the same general construct produce similar scores) and test-retest reliability (Mitchell & Hastings, 1998). In the present study, the feelings of depression/anger and feelings of fear/anxiety subscales were found to have acceptable levels of internal consistency, as assessed using Cronbach's α coefficient (feelings of depression/anger = .81; feelings of fear/anxiety = .72).

Acceptance and Action Questionnaire 16 item version (AAQ) (Hayes et al., 2004b*) and the AAQ-II* (Bond et al., submitted*)*(Appendix A3) were used to measure acceptance. The AAQ comprises 16 items which are designed to measure acceptance (e.g. I'm not afraid of my feelings) or experiential avoidance (e.g. "I try to suppress thoughts and feelings that I don't like by just not thinking about them"), which are considered to be two poles of the same construct. Scores can range from 16 to 112, with higher scores reflecting greater levels of acceptance. Similarly, the AAQ-II comprises ten items measuring acceptance (e.g. "It's OK if I remember something unpleasant") and experiential avoidance (e.g. "I worry about not being able to control my worries and feelings"). For both measures, participants were asked to

rate "the truth of each statement as it applies to you" using a seven

point Likert scale (1 = never true to 7 = always true). Scores can range

from 10 to 70, with higher scores reflecting greater levels of

acceptance.

Hayes et al. (2004b) reported an acceptable level of internal

consistency for the AAQ (α = .70), but more recently it has been

reported that obtaining sufficient alpha levels for the scale has proven

problematic (Association for Contextual Behavioral Science, 2009).

Internal consistency data are yet to be published for the AAQ-II. For

this reason, participants were asked to complete both versions of the

measure. In the present study, internal consistency was found to be

unacceptably low for the AAQ (α = .27), but the AAQ-II had acceptable

internal consistency (α = .77). Consequently all analysis was

undertaken using the AAQ-II.

The White Bear Suppression Inventory (WBSI, Wegner & Zanakos,

1994) (Appendix A4) was used to measure aspects of thought

suppression. Participants were asked to rate how strongly they agreed

with 15 statements (e.g. "I wish that I could stop thinking about certain

things," and "I always try and put problems out of my mind") on a five

point scale (1 = strongly disagree to 5 strongly agree). The WBSI has

been shown to have acceptable levels of internal consistency (α = .87 to

.89) (Wegner & Zanakos, 1994). In the present sample, internal

consistency was high (α = .93).

The Mindfulness Attention Awareness Scale (MAAS, Brown & Ryan, 2003) (Appendix A5) was used as a dispositional measure of mindfulness. The MAAS has 15 items which load onto a single 'mindfulness' factor. Items include "I could be experiencing some emotion and not be conscious of it until some time later"; "It seems I am 'running on automatic,' without much awareness of what I'm doing"; and "I rush through activities without being really attentive to them". Participants were asked to rate, on a 6 point scale, how frequently or infrequently they currently have each experience (1 = almost always to 6 = almost never). Higher scores indicate higher levels of dispositional mindfulness. The scale has good levels of internal consistency ($\alpha = .87$) (Brown & Ryan, 2003). In the present sample, internal consistency was high ($\alpha = .90$).

The Maslach Burnout Inventory – Human Services Survey (MBI-HSS, Maslach, Jackson & Leiter, 1996) (Appendix A6) was used as a measure of staff well-being in the present study. This measure is widely used in studies of burnout and was chosen because it specifically addresses well-being of staff working in human service settings. Participants were asked to rate 14 statements which contribute to two subscale scores (depersonalisation and emotional exhaustion). Depersonalisation refers to unfeeling and impersonal responses towards students (e.g. "I feel I treat some recipients as if they were impersonal objects"). Emotional exhaustion refers to staff feeling emotionally overextended and exhausted by their work (e.g. "I

feel emotionally drained from my work") (Maslach, Jackson & Leiter 1996). Depersonalisation and emotional exhaustion are considered negative aspects of burnout, with high scores reflecting higher levels of burnout. Following Hayes et al. (2004a), an overall burnout score was generated by combining items on emotional exhaustion and depersonalisation. The emotional exhaustion and depersonalisation subscales of the MBI-HSS have good levels of internal consistency (α = .90 for emotional exhaustion; α = .79 for depersonalisation) (Maslach, Jackson & Leiter, 1996). In the present sample, internal consistency for the emotional exhaustion subscale was good (α = .88) but the depersonalisation subscale had poor internal consistency (α = .52). This was not considered problematic, however, because the overall burnout score generated by combining scores on emotional exhaustion and depersonalisation subscales had a good level of internal consistency (α = .86).

The Hospital Anxiety and Depression Scale (HADS, Zigmond & Snaith, 1983) (Appendix A6) was used as a measure of the mental health of care staff. The HADS contains 7 items assessing anxiety (e.g. "I get sudden feelings of panic") and 7 items assessing depression (e.g. "I feel as if I'm slowed down"). Participants were asked to assess each item along a four point scale according to how they had been feeling over the preceding week. Scores on both subscales range from 0 to 21. Following Lloyd & Hastings (2008), the present study adopted a dimensional approach for the analyses, with total scores on the anxiety

and depression subscales being used. The HADS has been extensively used in community research, including studies with caregivers of people with developmental disabilities (e.g. Hastings & Brown, 2002c; Hastings & Horne, 2004) and has been shown to have good reliability (anxiety: α = .82; depression: α = .77) in research with mothers of children with developmental disabilities (Lloyd & Hastings, 2008). In the present sample, both subscales had adequate internal consistency (anxiety: α = .81; depression: α = .70).

2.2.3 Procedure

Consent was obtained from the University of Southampton's Ethics Committee prior to collecting data (Appendix B). Care staff were invited to participate in the research by their line managers who arranged a time for staff to be relieved of their duties in order to complete the questionnaires. Participants were given a questionnaire by the researcher and were advised that she was available to answer any questions that the participants may have had about completing the questionnaire. Prior to consenting to participate, they were advised that certain questions asked for information of a personal nature and that their participation would be completely anonymous. All participants were required to provide informed consent (Appendix C) in order to participate and were provided with a debriefing statement (Appendix D) following completion of the questionnaires.

Eighty-one staff agreed to participate and returned a questionnaire, a response rate of thirty-four percent. No data are available on the staff who did not agree to participate. It is not possible to ascertain whether the participating sample were representative of the staff in the two schools in terms of demographic measures. Of the returned questionnaires, seven omitted at least one complete measure and were thus excluded from the analysis.

2.3 Results

2.3.1Preliminary Analyses

Suitability of the data for parametric analyses: Prior to conducting the main statistical analyses, the emotional reactions, metacognitive and well-being variables were tested for their suitability for parametric statistical analyses. One sample Kolmogorov-Smirnov tests were used to compare the scores on each variable to a normal distribution. The feelings of depression/anger subscale of the Emotional Reactions to Aggressive Challenging Behaviour scale was normally distributed, but the feelings of fear/anger subscale was not. Following Hastings et al. (2003), a total negative emotional reactions score was derived by summing the ratings across the 15 items. The resulting scale was normally distributed and had good internal consistency (α = .85).

The Kolmogorov-Smirnov test for the AAQ-II was significant, indicating that the data differed significantly for a normal distribution.

Descriptive statistics and box plots identified one outlier, which was outside the range of +/- 2 standard deviations from the mean. This case was therefore considered sufficiently extreme and the participant's data were omitted from the data set (Field, 2005), leaving a total sample size of n = 73. The AAQ-II was normally distributed once this outlier had been removed. Kolmogorov-Smirnov tests were non-significant for the MAAS and WBSI, indicating that scores on these scales were normally distributed.

The anxiety subscale of the HADS was normally distributed, but the depression subscale differed significantly from a normal distribution. Descriptive statistics revealed that there was little variability in the depression subscale scores and consequently this subscale was excluded from further analyses.

Effects of demographic variables: Associations between demographic variables and the emotional reactions, metacognitive and staff well-being variables were explored using independent samples t-tests for the dichotomous variable of gender, and Pearson's correlation coefficients for continuous demographic variables (age and length of time working with people with young people with intellectual disabilities). None of the demographic variables were associated with any other variable and therefore none were retained in subsequent analyses.

2.3.2 Main Statistical Analyses

In the first stage of analysis all test variables were correlated with one another to explore relationships between them. As hypothesised, the negative emotional reactions to challenging behaviour measure was positively correlated with both anxiety and burnout, thus establishing that there were relationships which may be mediated by the metacognitive variables. In addition, the metacognitive variables (acceptance, thought suppression and mindfulness) were correlated with each other; acceptance was negatively correlated with thought suppression and positively correlated with mindfulness. Finally, the metacognitive variables were correlated with negative emotional reactions and burnout and anxiety. Significant correlations between these variables were a prerequisite for testing whether the metacognitive variables mediated the relationship between negative emotional reactions to challenging behaviour and burnout, or the relationship between negative emotional reactions and anxiety. All correlations are displayed in Table 1.

Table 1 also shows the means and standard deviations for all test variables. The mean negative emotional reactions score (mean = 14.00) was derived by summing the means for the feelings of depression/anger (mean = 8.88) and for the feelings of fear/anxiety (mean = 5.12) subscales. The mean scores for the feelings of depression/anger and fear/anxiety subscales in the present sample fell

Table 1. Means, Standard Deviations and Intercorrelations (whole data set)

	1	2	3	4	5	6	M	SD
1. Negative emotional reactions	1	-.38**	.31**	-.25*	.42**	.43**	14.00	6.05
2. Acceptance	-	1	-.44**	.45**	-.55**	-.51**	49.23	8.66
3. Thought suppression	-	-	1	-.53**	.62**	.60**	44.34	12.17
4. Mindfulness	-	-	-	1	-.48**	-.49**	63.36	12.72
5. Burnout	-	-	-	-	1	.59**	26.05	13.45
6. Anxiety	-	-	-	-	-	1	7.01	3.36

Note. *p<.05, **p<.0

within one standard deviation of those reported in the scale

development study, in a sample of direct care staff working with adults

with challenging behaviour (Mitchell & Hastings, 1998). No studies

were found which have used the AAQ-II, WBSI or MAAS with direct care

staff working with people with learning disabilities and consequently

the present results could not be compared with those of previous

studies.   The mean burnout score (mean = 26.05) was derived by

summing the means for the emotional exhaustion (mean = 20.75)

subscale and the depersonalisation (mean = 5.30) subscale of the MBI-

HSS. The mean scores for the emotional exhaustion and

depersonalisation subscales fell within one standard deviation of those

found in studies of burnout in direct care staff in services for adults with

learning disabilities (Mitchell & Hastings, 2001; Chung & Corbett, 1998).

The mean HADS anxiety subscale score (mean = 7.01) fell within one

standard deviation of mean scores reported for parents of children with

autism (Hastings & Brown, 2002c).

2.3.2.1 Hierarchical Multiple Regression

Prior to analysing whether the relationships between negative

emotional reactions and burnout, and negative emotional reactions

and anxiety, were mediated by experiential avoidance, thought

suppression or mindfulness, hierarchical multiple regression was

employed to ascertain which of the metacognitive variables

contributed unique variance to the burnout and anxiety scores. This enabled the identification of the variables to be used in the construction of a composite measure.

The results of these regression analyses are summarised in Table 2 and Table 3. For burnout (see Table 2), thought suppression, acceptance and mindfulness were entered into the regression model. Overall, a significant percentage of the variance in burnout scores was explained by the regression model. The most significant predictor was thought suppression (explaining 39% of the variance), whilst acceptance explained a smaller percentage (10% of the variance). Mindfulness did not explain a significant percentage of the variance in burnout scores.

Table 2. Results of Regression Analysis of Burnout

	B	*SE B*	*B*
Step 1			
Constant	-4.51	4.71	
Thought Suppression	0.69	0.10	.62*
Step 2			
Constant	29.13	10.31	
Thought Suppression	0.52	0.11	.47*
Acceptance	-0.53	0.15	-.34*

Note R^2 = .39 for Step 1(p<.001); Δ R^2 = .10 for Step 2 (p< .001). *p<.001.

For anxiety (see Table 3), thought suppression, acceptance and mindfulness were entered into the regression model. Overall, a significant percentage of the variance in anxiety scores was explained by the regression model. The most significant predictor was thought suppression (explaining 36% of the variance), whilst acceptance explained a smaller percentage (7% of the variance). Mindfulness did not explain a significant percentage of the variance in anxiety scores.

Table 3. Results of Regression Analysis of Anxiety

	B	*SE B*	*B*
Step 1			
Constant	-0.36	1.21	
Thought Suppression	0.17	0.03	.60**
Step 2			
Constant	7.07	2.70	
Thought Suppression	0.13	0.03	.47**
Acceptance	-0.12	0.04	-.30*

Note R^2 = .36 for Step 1 (p<.001); ΔR^2 = .07 for Step 2 (p< .01).

*p <.01, **p<.001.

As thought suppression and acceptance, but not mindfulness explained significant percentages of the variance in both burnout and anxiety scores, a composite measure, 'avoidance/suppression', was

constructed. To do this, scores on the WBSI were reverse scored so that higher scores indicated lower levels of thought suppression. Z scores for the reverse coded WBSI and the AAQ-II were then summed. Higher scores on the resultant avoidance/suppression variable indicated lower levels of thought suppression and higher levels of acceptance; lower scores indicated higher levels of thought suppression and higher levels of experiential avoidance.

Following construction of the composite measure (avoidance/suppression), it was correlated with both the independent variable (negative emotional reactions to challenging behaviour) and the dependent variables (burnout and anxiety) to confirm that the correlations remained significant. These correlations are presented in Table 4. Moderate to large correlations were found between the avoidance/suppression composite and the other measures.

Table 4. Correlations with Avoidance/Suppression Composite

	Avoidance/Suppression
1. Negative emotional reactions	-.41*
2. Burnout	-.69*
3. Anxiety	-.65*

$p<.01$

2.3.2.2 Mediation Analyses

The analyses reported thus far have demonstrated that the negative emotional reactions to aggressive challenging behaviour measure is positively correlated with both burnout and anxiety; that the negative emotional reactions to challenging behaviour measure is negatively correlated with a composite measure; and that the composite measure is negatively correlated with burnout and anxiety. These significant correlations satisfied the conditions to test whether the avoidance/suppression composite measure mediates the relationship between negative emotional reactions to challenging behaviour and direct care staff well-being (burnout or anxiety).

To test for mediation, a series of regressions were computed, as suggested by Baron and Kenny (1986). The significance of the indirect effect was then tested using the Sobel test (see Sobel, 1982; Jose, 2003). A Sobel z-value of larger than 1.96 indicates that the mediator carries the influence of the predictor variable (emotional reactions to challenging behaviour) on the outcome variable (burnout or anxiety).

An online version of the test (Medgraph, Jose, 2003) used for the present analyses, both calculates Sobel's z-value and indicates whether partial or full mediation has occurred. Full mediation is said to have occurred when the relationship between the predictor variable (negative emotional reactions to challenging behaviour) and the outcome variable (burnout or anxiety) is no longer significant,

once the role of the mediating variable has been taken into account. Partial mediation is considered to have resulted when the relationship between the predictor and outcome variables is reduced in magnitude but remains significant. Medgraph (Jose, 2003) tests the significance of the correlation between the predictor and outcome variables, in order to determine whether partial or full mediation has occurred.

Avoidance/suppression fully mediated the relationship between negative emotional reactions to challenging behaviour and burnout (see Figure 1). Negative emotional reactions to challenging behaviour significantly predicted burnout (β = .42, p<.01) thus establishing that there was an effect to be mediated. Negative emotional reactions to challenging behaviour were found to significantly predict avoidance/suppression (β = -.41, p<.01), and avoidance/suppression was found to significantly predict burnout, independent of negative emotional reactions (β = -.63, p<.01). This mediated path was found to be significant (z = 3.32, p<.01) using Sobel's z-test (Sobel, 1982). Negative emotional reactions to challenging behaviour did not predict burnout, independent of avoidance/suppression (β =.16, non significant).
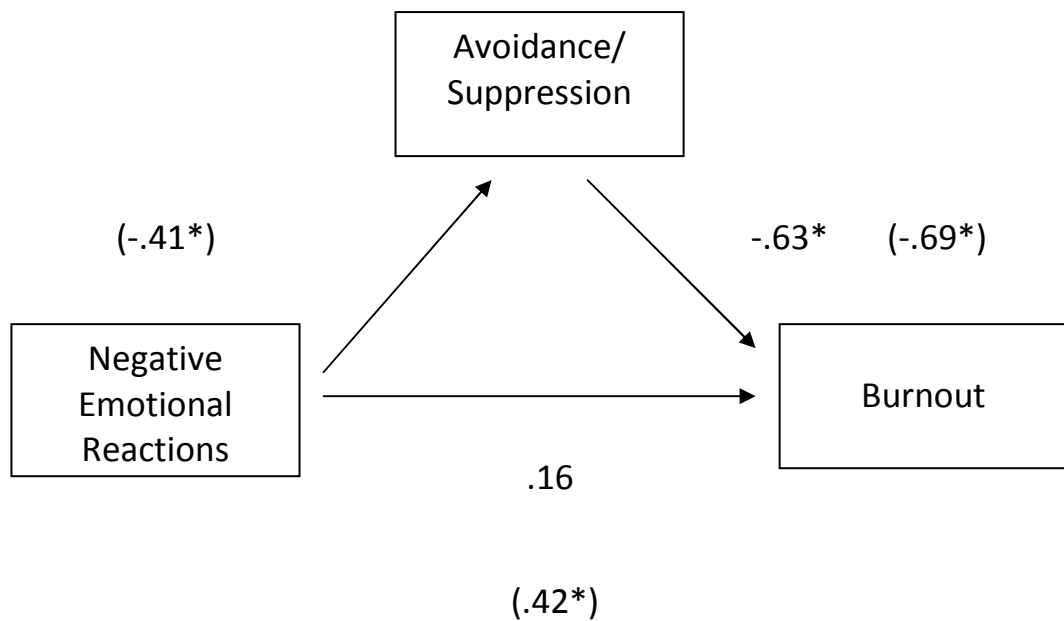
Figure 1. Path analyses with avoidance/suppression as a mediator of the relationship between negative emotional reactions to challenging behaviour and burnout. Note. Numbers in parentheses are the zero-order correlations. Inset are the standardised beta scores. * p< .01.

Avoidance/suppression also fully mediated the relationship between negative emotional reactions to challenging behaviour and anxiety (see Figure 2). Negative emotional reactions to challenging behaviour significantly predicted anxiety (β = .43 p<.01) thus establishing that there was an effect to be mediated.   Emotional reactions to challenging behaviour were found to significantly predict avoidance/suppression (β = -.41, p<.01), and avoidance/suppression was found to significantly predict anxiety, independent of emotional reactions (β = -.58, p<.01). This mediated path was found to be significant (z = 3.21, p<.01) using Sobel's z-test (Sobel, 1982). Negative

emotional reactions to challenging behaviour did not predict anxiety, independent of avoidance/suppression (β =.19, non significant[1]).
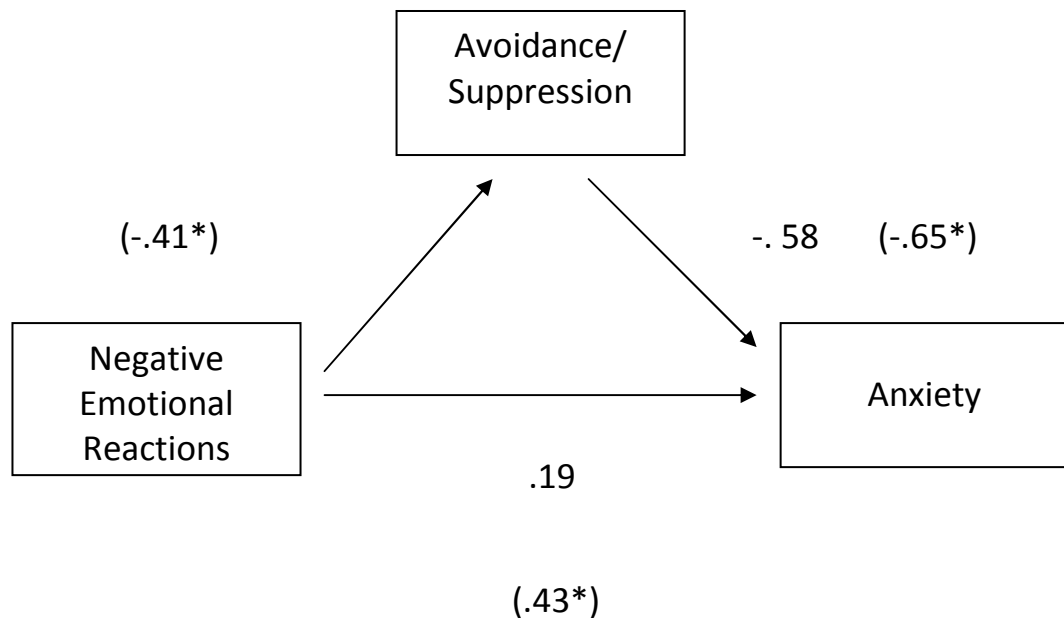

Figure 2. Path analyses with avoidance/suppression as a mediator of the relationship between negative emotional reactions to challenging behaviour and anxiety. Note. Numbers in parentheses are the zero-order correlations. Inset are the standardised beta scores. * p< .01.

2.4 Discussion

The primary purpose of the present study was to investigate whether acceptance, thought suppression and mindfulness (metacognitive factors) provide a psychological mechanism for explaining the relationship between negative emotional reactions to challenging behaviour and staff well-being. Consistent with previous findings (Mitchell & Hastings, 2001; Rose et al., 2004), negative emotional reactions to challenging behaviour were associated with negative aspects of burnout. Whilst previous research has

investigated associations between negative emotional reactions to challenging behaviour and burnout, no previous study has investigated whether negative emotional reactions are similarly associated with other measures of staff well-being. The present findings therefore provide the first evidence that negative emotional reactions to challenging behaviour are associated with anxiety in direct care staff.

Hierarchical regression analyses revealed that thought suppression and acceptance explained significant amounts of the variance in both burnout and anxiety scores. Although the acceptance/ experiential avoidance and thought suppression of direct care staff in intellectual disability settings has not previously been investigated, a recent study reported a negative association between acceptance and distress in mothers of children with intellectual disabilities (Lloyd & Hastings, 2008). As predicted by the experiential avoidance literature (see Hayes et al., 2006), the present results provide the first evidence that acceptance and low levels of thought suppression are associated with staff well-being in intellectual disability services. Despite being significantly negatively correlated with both burnout and anxiety in initial analyses, mindfulness did not contribute any unique variance to the regression models for burnout or anxiety. This finding was considered to reflect the fact that thought suppression and the absence of mindfulness are closely associated; it

is not possible to be fully in touch with the present moment, whilst suppressing unwanted thoughts.

As expected from the broader experiential literature (e.g. Najmi, Wegner & Knock, 2007; Stewart, Zvolensky & Eifert, 2000), a composite measure combining experiential avoidance and thought suppression mediated the relationships between negative emotional reactions to challenging behaviour and burnout, and negative emotional reactions to challenging behaviour and anxiety.

In the mediation model for anxiety, the relationship between emotional reactions to challenging behaviour and anxiety was on the border of significance (p = .050) when avoidance/suppression was included. The online programme (Medgraph, Jose, 2003) used in the present analyses computed this relationship to be non-significant and thus reported that full mediation had occurred; possibly because it calculated the significance value to more decimal places. Whether partial or full mediation can be claimed, the present results support the broad conclusion that staff who engage in the processes of experiential avoidance and thought suppression are more likely to experience burnout and anxiety as a result of exposure to challenging behaviour, than those who employ acceptance based coping strategies.

The present results could have significant practical implications. Evidence has been presented that is consistent with the hypothesis that suppressing or avoiding negative emotions evoked by the

challenging behaviour of people with learning disabilities, leads to burnout and anxiety in care staff. If staff could be taught to increase acceptance of their negative emotions, positive effects on their psychological well-being would be predicted. Interventions based on the principles of Acceptance and Commitment Therapy (ACT) specifically focussing on work stress (Bond & Bunce, 2003) may therefore be beneficial to learning disability care staff. Although, no studies have been found which have reported the use of ACT based interventions with learning disability care staff, Blackledge and Hayes (2006) reported increased parental well-being following an ACT based intervention with parents of children with autism and Hayes et al. (2004) reported a significant decrease in burnout in addiction counsellors following an ACT based intervention. The development of ACT based training for staff working with children and adults with learning disabilities would be supported by the results of the present study.

The present findings need to be considered within the context of a number of methodological limitations. Most significantly, this study was not longitudinal in design and it was therefore not possible to establish causal relationships amongst the variables. Future research should aim to investigate temporal relationships between emotional reactions, experiential avoidance, thought suppression and staff well-being measures using longitudinal designs. Further evidence of causal links may be established through the use of ACT based interventions;

using mediational analyses (Baron & Kenny, 1986), increased staff well-being in an intervention group could be shown to be the result of increased levels of acceptance following intervention. Although a major intervention study would be costly, the present results provide support for the hypothesis that an intervention based on the principles of ACT would reduce burnout and anxiety in direct care staff in learning disability services.

A further methodological limitation resulted from the fact that the present study employed general dispositional measures of the metacognitive factors. The question remains therefore, whether direct care staff employ experiential avoidance and thought suppression approaches to deal directly with their emotional responses to challenging behaviour.

Finally, caution should be exercised in generalising these results to all direct care staff. The sample was derived from a single provider of residential education for children with intellectual disabilities and challenging behaviour. The extent to which the staff in the present sample were representative of direct care staff in other educational settings or in adult provisions is unknown. Moreover, information was not available about staff who chose not to take part in the present study. The possibility that non-respondents differed systematically from respondents cannot be ruled out, however the demographic information collected in the present study suggests that the sample was

similar to those previously used in studies into staff stress and burnout (e.g. Devereux et al., 2009; Mitchell & Hastings, 2001).

In summary, the present study has provided initial evidence that experiential avoidance and thought suppression provide a psychological mechanism to explain how emotional reactions to challenging behaviour affect staff well-being. Future research should aim to extend the present study to explore temporal relationships between the variables of interest.

Notes

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1. The p value of the beta is on a statistical borderline (p = .050).

   This was reported as non-significant by Medgraph (Jose, 2003).

Appendix A: STAFF QUESTIONNAIRE

Appendix A1: Demographic Information

Please complete the following:

1. Please circle your sex:

    Male   **Female**

2. How old are you?

Under 24	
25 – 34	
35 – 44	
45 – 54	
55+	

3. How long have you worked with children and young people with challenging behaviour?

Less than 1 year	
1 – 3 years	
3 – 5 years	
5 – 10 years	
More than 10 years	

4. Please list any qualifications you have relating to caring for children and young people with challenging behaviour?

Appendix A2: Emotional Reactions to Aggressive Challenging Behaviour Scale

Emotional Reactions to Challenging Behaviour Scale

Below is a list of emotions that caregivers have said that they experience when they have to work with young people who display challenging behaviours. We want to know how *you* typically feel in this situation. Think about your own recent experience of challenging behaviours displayed by the young people that you work with. Consider each of the emotional reactions, and select the response next to each item that best describes how you feel when working with young people who display challenging behaviours

	No, never	Yes, but infrequently	Yes, frequently	Yes, very frequently
SHOCKED	0	1	2	3
CONFIDENT	0	1	2	3
GUILTY	0	1	2	3
HOPELESS	0	1	2	3
COMFORTABLE	0	1	2	3
AFRAID	0	1	2	3
ANGRY	0	1	2	3
INVIGORATED	0	1	2	3
INCOMPETENT	0	1	2	3
HAPPY	0	1	2	3
FRUSTRATED	0	1	2	3
HELPLESS	0	1	2	3
SELF-ASSURED	0	1	2	3
DISGUSTED	0	1	2	3
RELAXED	0	1	2	3
RESIGNED	0	1	2	3
FRIGHTENED	0	1	2	3
CHEERFUL	0	1	2	3
HUMILIATED	0	1	2	3
BETRAYED	0	1	2	3
SAD	0	1	2	3
EXCITED	0	1	2	3
NERVOUS	0	1	2	3

Appendix A3: Acceptance and Action Questionnaire

Acceptance and Action Questionnaire (AAQ)

Below you will find a list of statements. Please rate the truth of each statement as it applies to you. Use the following scale to make your choice.

1	2	3	4	5	6	7
never true	Very seldom true	seldom true	sometimes true	frequently true	almost always true	always true

1. I am able to take action on a problem even if I am uncertain what is the right thing to do.   1 2 3 4 5 6 7

2. When I feel depressed or anxious, I am unable to take care of my responsibilities.   1 2 3 4 5 6 7

3. I try to suppress thoughts and feelings that I don't like by just not thinking about them.   1 2 3 4 5 6 7

4. It's OK to feel depressed or anxious.   1 2 3 4 5 6 7

5. I rarely worry about getting my anxieties, worries, and feelings under control.   1 2 3 4 5 6 7

6. In order for me to do something important, I have to have all my doubts worked out.   1 2 3 4 5 6 7

7. I'm not afraid of my feelings.   1 2 3 4 5 6 7

8. I try hard to avoid feeling depressed or anxious.   1 2 3 4 5 6 7

9. Anxiety is bad.   1 2 3 4 5 6 7

10. Despite doubts, I feel as though I can set a course in my life and then stick to it.   1 2 3 4 5 6 7

11. If I could magically remove all the painful experiences I've had in my life, I would do so.   1 2 3 4 5 6 7

12. I am in control of my life.   1 2 3 4 5 6 7

13. If I get bored of a task, I can still complete it.   1 2 3 4 5 6 7

14. Worries can get in the way of my success.   1 2 3 4 5 6 7

15. I should act according to my feelings at the time. 1 2 3 4 5 6 7

16. If I promised to do something, I'll do it, even if I later don't feel like it. 1 2 3 4 5 6 7

17. I often catch myself daydreaming about things I've done and what I would do differently next time. 1 2 3 4 5 6 7

18. When I evaluate something negatively, I usually recognize that this is just a reaction, not an objective fact. 1 2 3 4 5 6 7

19. When I compare myself to other people, it seems that most of them are handling their lives better than I do. 1 2 3 4 5 6 7

20. It is unnecessary for me to learn to control my feelings in order to handle my life well. 1 2 3 4 5 6 7

21. A person who is really "together" should not struggle with things the way I do 1 2 3 4 5 6 7

22. There are not many activities that I stop doing when I am feeling depressed or anxious. 1 2 3 4 5 6 7

23. It is OK if I remember something unpleasant. 1 2 3 4 5 6 7

24. My painful experiences and memories make it difficult for me to live a life that I would value. 1 2 3 4 5 6 7

25. I'm afraid of my feelings. 1 2 3 4 5 6 7

26. I worry about not being able to control my worries and feelings. 1 2 3 4 5 6 7

27. My painful memories prevent me from having a fulfilling life. 1 2 3 4 5 6 7

28. Emotions cause problems in my life. 1 2 3 4 5 6 7

29. It seems like most people are handling their lives better than I am. 1 2 3 4 5 6 7

30. My thoughts and feelings do not get in the way of how I want to live my life. 1 2 3 4 5 6 7

Appendix A4: White Bear Suppression Inventory

White Bear Suppression Inventory

This survey is about thoughts. Please answer every item by circling the appropriate letter beside each.

1	**2**	**3**	**4**	**5**
Strongly Disagree	Disagree	Neutral or Don't Know	Agree	Strongly Agree

1. There are things I prefer not to think about. 1 2 3 4 5

2. Sometimes I wonder why I have the thoughts I do. 1 2 3 4 5

3. I have thoughts that I cannot stop. 1 2 3 4 5

4. There are images that come to mind that I cannot erase. 1 2 3 4 5

5. My thoughts frequently return to one idea. 1 2 3 4 5

6. I wish I could stop thinking of certain things. 1 2 3 4 5

7. Sometimes my mind races so fast I wish I could stop it. 1 2 3 4 5

8. I always try to put my problems out of mind. 1 2 3 4 5

9. There are thoughts that keep jumping into my head. 1 2 3 4 5

10. There are things that I try not to think about. 1 2 3 4 5

11. Sometimes I really wish I could stop thinking. 1 2 3 4 5

12. I often do things to distract myself from my thoughts. 1 2 3 4 5

13. I have thoughts that I try to avoid. 1 2 3 4 5

14. There are many thoughts that I have that I don't tell anyone. 1 2 3 4 5

15. Sometimes I stay busy just to keep thoughts from intruding on my mind. 1 2 3 4 5

Appendix A5: The Mindful Attention Awareness Scale

The Mindful Attention Awareness Scale

Instructions: Below is a collection of statements about your everyday experience. Using the 1-6 scale below, please indicate how frequently or infrequently you currently have each experience. Please answer according to what *really reflects* your experience rather than what you think your experience should be. Please treat each item separately from every other item.

1	2	3	4	5	6
Almost Always	Very Frequently	Somewhat Frequently	Somewhat Infrequently	Very Infrequently	Almost Never

I could be experiencing some emotion and not be conscious of it until some time later.	1 2 3 4 5 6
I break or spill things because of carelessness, not paying attention, or thinking of something else.	1 2 3 4 5 6
I find it difficult to stay focused on what's happening in the present.	1 2 3 4 5 6
I tend to walk quickly to get where I'm going without paying attention to what I experience along the way.	1 2 3 4 5 6
I tend not to notice feelings of physical tension or discomfort until they really grab my attention.	1 2 3 4 5 6
I forget a person's name almost as soon as I've been told it for the first time.	1 2 3 4 5 6
It seems I am "running on automatic," without much awareness of what I'm doing.	1 2 3 4 5 6
I rush through activities without being really attentive to them.	1 2 3 4 5 6
I get so focused on the goal I want to achieve that I lose touch with what I'm doing right now to get there.	1 2 3 4 5 6
I do jobs or tasks automatically, without being aware of what I'm doing.	1 2 3 4 5 6
I find myself listening to someone with one ear, doing something else at the same time.	1 2 3 4 5 6

I drive places on 'automatic pilot' and then wonder why I went there.	1 2 3 4 5 6
I find myself preoccupied with the future or the past.	1 2 3 4 5 6
I find myself doing things without paying attention.	1 2 3 4 5 6
I snack without being aware that I'm eating.	1 2 3 4 5 6

Appendix A6: Copyrighted Questionnaire Information

The following questionnaires are subject to copyright and therefore could not be reproduced:

The Maslach Burnout Inventory – Human Services Survey (MBI-HSS, Maslach, Jackson & Leiter, 1996)

The Hospital Anxiety and Depression Scale (HADS, Zigmond & Snaith, 1983)

Appendix B: Proof of Ethics Committee Consent

From: Psychology.Ethics.Forms@ps1.psy.soton.ac.uk
[Psychology.Ethics.Forms@ps1.psy.soton.ac.uk]
Sent: 19 May 2008 13:03
To: Jenkins K.L.
Subject: Your Ethics Form approval

This email is to confirm that your ethics form submission for "Psychological variables as correlates of adjustment in staff working with children with intellectual disabilities and associated challenging behaviour." has been approved by the ethics committee

Project Title: Psychological variables as correlates of adjustment in staff working with children with intellectual disabilities and associated challenging behaviour.
Study ID : 565
Approved Date : 2008-05-19 13:03:01

Click here to view
Psychobook<http://www.psychology.soton.ac.uk/psyweb/psychobook/admin/>

If you haven't already submitted the Research Governance form for indemnity insurance and research sponsorship along with your ethics application please be aware that you are now required to fill in this form which can be found online at the link below.
Research Governance Form:
http://www.psychology.soton.ac.uk/psyweb/psychobook/admin/ethics/research_governance.doc
This will need to be returned to the address provided on the form.

Please note that you cannot begin your research before you have had positive approval from the University of Southampton Research Governance Office (RGO). You should receive this by email in a maximum of two working weeks. If you experience any delay beyond this period please contact Pippa Smith.
More information about Research Governance can be found at the link below. (You will be prompted to log into sussed.)
http://www.resource1.soton.ac.uk/legalservices/rgo/regprojs/whatdocs.html

Appendix C: Consent Document

Letter of Consent for Questionnaires

I am Kate Jenkins, a trainee educational psychologist at The University of Southampton. I am requesting your participation in a study regarding stress and burnout in staff who work with children and young people with challenging behaviour. This will involve filling out seven short questionnaires which will take about thirty minutes. You will be asked to answer questions about your emotional reactions to challenging behaviour, how you cope and also about any stress you might experience. Personal information will not be released to or viewed by anyone other than 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, Kate Jenkins at klj1@soton.ac.uk.
If you have any questions please contact me Kate Jenkins at klj1@soton.ac.uk.

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 5578.

Appendix D: Debriefing Statement

Debriefing Statement

The aim of this research was to look at whether the coping strategies of staff may affect whether or not their negative emotional reactions to challenging behaviour result in stress or burnout.   It is expected that staff with effective coping strategies will experience less stress and burnout at work. Your data will help our understanding of why some people might become more stressed at work than other people. Once again results of this study will not include your name or any other identifying characteristics. The research did not use deception.

You may have a copy of this summary if you wish. If you would like a copy of the findings of this study please ask me, Kate Jenkins or contact me by email and I will send them to you.
.
If you have any further questions please contact me, Kate Jenkins at klj1@soton.ac.uk.

Thank you for your participation in this research.

Signature _____   Date _____

Name

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 5578.

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