The Effect of Organisational Support on Care Staff Attributions about, Emotional Reactions to, and Self-Efficacy in Managing, Challenging Behaviour

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ABSTRACT

This is a quantitative study focussing on the experiences of paid carers working with people who have learning disabilities and challenging behaviour. Staff working with people displaying these behaviours are likely to experience high levels of stress and face significant challenges in understanding and managing this behaviour. This study assessed the amount of support carers for people with learning disabilities and challenging behaviour receive from the organisations they work for, and how helpful they find this in managing the challenging behaviour of their residents. This support includes supervision, training and team meetings.

It assessed the attributions made by care staff about the causes of challenging behaviour, their emotional reactions to challenging behaviour and their perceived self-efficacy in managing this behaviour, using previously developed scales. Organisational support was measures using two scales. A previously validated measure was used to assess general perceptions of a supportive environment, whilst a new measure was designed to assess aspects of support given around challenging behaviour.

66 participants were recruited from 13 residential units in three London boroughs. Significant links were found between staff support and self-efficacy, and self-efficacy and negative emotional reactions to challenging behaviour. Both staff support related to challenging behaviour and more general features of a supportive organisation were found to be important in promoting self-efficacy. The measure designed for this study showed promise as a quick, reliable method of assessing staff

support around challenging behaviour. Limitations of the study, clinical implications and future directions for research are discussed.

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1 INTRODUCTION

The importance of understanding the experience of staff who work with people with learning disabilities and challenging behaviour is increasingly being recognised. Care staff are among the most important assets for any service and account for the largest expenditure (Jenkins, Rose & Lovell, 1987) and their well being directly influences the well being of service users. This study aims to find out more about their emotions, attributions and self-efficacy when working with people with challenging behaviours; and the effect the support they receive from their employing organisation has on these processes.

The introduction begins with a discussion of the definition, prevalence and importance of challenging behaviour. The importance of the interaction between care staff and service-users is then highlighted and models for understanding this discussed. Research relevant to carer emotions, attributions and perceived self-efficacy when managing challenging behaviour is then reviewed. The effect that the wider context in which challenging behaviour services operate might have on front-line carers is outlined, followed by a more detailed examination of organisational factors that may influence staff performance and functioning. Finally, the hypotheses that this study is designed to test are explained.

1.1 What is 'challenging behaviour'?

The term 'challenging behaviour' has been used widely in the last 15 years. It was given prominence in this country by Penrose and Allen (1987), having previously been used in North America. A frequently cited definition of challenging behaviour is:

> ".... behaviour of such an intensity, frequency or duration that the physical safety of the person or others is likely to be placed in serious jeopardy or behaviour which is likely to limit or deny access to and use of community facilities." (Emerson, Toogood & Mansell, 1987).

However, judging whether a specific behaviour should be defined as 'challenging' is problematic. The label has been applied inconsistently to a range of behaviours such as self-injury, aggression, destruction of the environment, sexually inappropriate behaviour, fire-setting, faecal smearing, stereotypy, noisemaking, extreme withdrawal and breaking of social conventions (McGill, Clare & Murphy, 1996; Lowe et al., 1998). Staff tend to define challenging behaviours as those which constitute a management problem (Hastings, 1995). This view may well exclude a number of behaviours that would qualify as challenging under Emerson et al.'s (1987) definition, particularly those that may prevent access to and use of community facilities without presenting significant management problems to services, such as stereotypy.

As the label can potentially cover a wide scope of behaviours it is open to being used differently in different situations, with contrasting views held as to when the term can usefully be applied (Alexander, 1996). What is deemed to be 'challenging' may depend on the motivation for using the label (e.g. either to access, or to exclude, individuals from services), the setting in which the behaviour is taking place, or differing individual beliefs about what constitutes appropriate behaviour (McGill et al., 1996; Cullen, 1999; Hastings & Remington, 1994). Lowe et al. (1998) conclude that a major problem in defining challenging behaviour is "that challenging behaviour is not an absolute pathological condition, i.e. a property of the person, but the product of a person-environment interaction" (Lowe et al., 1998, p 376)

Both the dependence of individuals' behaviours on social context, and the influence that context has on the labelling process, means that what is perceived as challenging behaviour is locally, and perhaps historically and culturally, dependent. There is a consensus that some behaviours, such as aggression or property destruction, fall under this label (Alexander, 1996). However, there is less agreement about other behaviours that may present less of a management problem. Thus, it is important to consider how challenging behaviour is defined and recognise that a number of behaviours may be included under this term, and that these behaviours may be present to a greater or lesser degree in different environments and with different people. There may be an element of circularity in the process in which

> "a behaviour is defined as challenging because of its effects, but its effects depend on how it is responded to and the response depends on whether

[the behaviour] is classed as challenging" (Heyman, Swain & Gilman, 1998)

To conclude then, identifying and classifying 'challenging behaviour' is problematic.

1.2 The Impact of Challenging Behaviour

Different understandings of what constitutes 'challenging behaviour' will have a major impact on its reported prevalence. However, several studies have found that between 5% and 15% of people with learning disabilities showed behaviours that present a significant challenge for those that were supporting them and were risk factors for a breakdown in community placements (e.g. Mansell et al., 1994; Emerson et al., 1997). Emerson (1995) reported that 6.1% of those defined as having a learning disability in the North-West of England also showed challenging behaviour, a similar figure to that of Qureshi & Alborz (1992). More recently Joyce, Ditchfield & Harris (2001) surveyed three London boroughs and found that approximately 19% of those defined with intellectual disability also displayed behaviours defined as challenging. The majority of behaviours posed at least moderate management difficulty (i.e. were quite difficult to manage but carers felt that they could manage them on their own). This less stringent categorisation of challenging behaviour, compared to that which may potentially result in a placement breakdown, may result in the increased prevalence reported in this study. However, they noted other significant factors that could influence the reported prevalence, including incomplete census information, over-representation of people from Black ethnic-minority groups and increase in prevalence in younger age groups. Thus, this

study provides an insight into the complexity of assessing rates of prevalence, understanding possible causes of these rates, and formulating appropriate service responses.

Although prevalence rates are typically reported at between 5-15%, 80% of care staff report experiencing challenging behaviour in the residential home where they work (Jenkins et al., 1997). Although this is commensurate with commonly reported prevalence rates (as care staff are likely to care for many service-users), it may also reflect differing definitions of challenging behaviour used by care staff and researchers and clinicians and a lack of identification of the full extent of challenging behaviour in epidemiological studies (Hastings, 1995). The environment that the individual is experiencing, and the interaction with those around them, are crucial factors in shaping their behaviour. Many factors will also determine whether this behaviour is labelled as challenging or not. Thus, there are likely to be multiple causes for a behaviour to develop and become defined as challenging. This behaviour has a significant effect on both the service user and the carer.

For the individual labelled as presenting with challenging behaviour there are likely to be many negative effects. A breakdown in placement may result in distress and relocation. Challenging behaviour has the effect of disrupting ordinary life, and individuals labelled as having learning disabilities and challenging behaviour are particularly vulnerable to being excluded from the mainstream of society (Jenkins et al., 1997) and are seen as a difficult group to maintain in the community (Lowe & Felce, 1994). They may be more at risk of physical abuse (Rusch, Hall and Griffin, 1986), be more likely to be placed in residential care by their families (Sherman,

1988), may contribute to higher levels of family distress (Quine & Pahl, 1985), experience less social interaction (Hastings & Remington, 1994) and may be judged more negatively by carers (Jones, Wint & Ellis, 1990).

Those who are supporting individuals with challenging behaviour are also likely to suffer many negative effects. Jenkins et al. (1997) found that carers supporting residents with challenging behaviour were significantly more anxious than those who were supporting residents who did not have challenging behaviour. Bromley & Emerson (1995) found that the most significant sources of stress associated with caring for someone with challenging behaviour were the "daily grind" of caring, difficulties in understanding their behaviour, the unpredictability of the behaviour and the apparent absence of an effective way forward.

1.3 Interaction between Carer and Service User

The importance of carers in the lives of people with learning disabilities has long been recognised (e.g. Ayllon & Michael, 1959). Carers support clients in a wide range of settings (e.g. employment, day services, residential accommodation) and a variety of ways, including personal care, daily living activities, financial management and support with relationship and health issues. Thus, they are likely to have a significant influence on the behaviour and emotional state of the client.

Understanding the interaction between carers and service-users is therefore crucial in understanding service users' behaviours, including those deemed 'challenging'. In this section I will outline Hastings' (1997) model which incorporates antecedents to

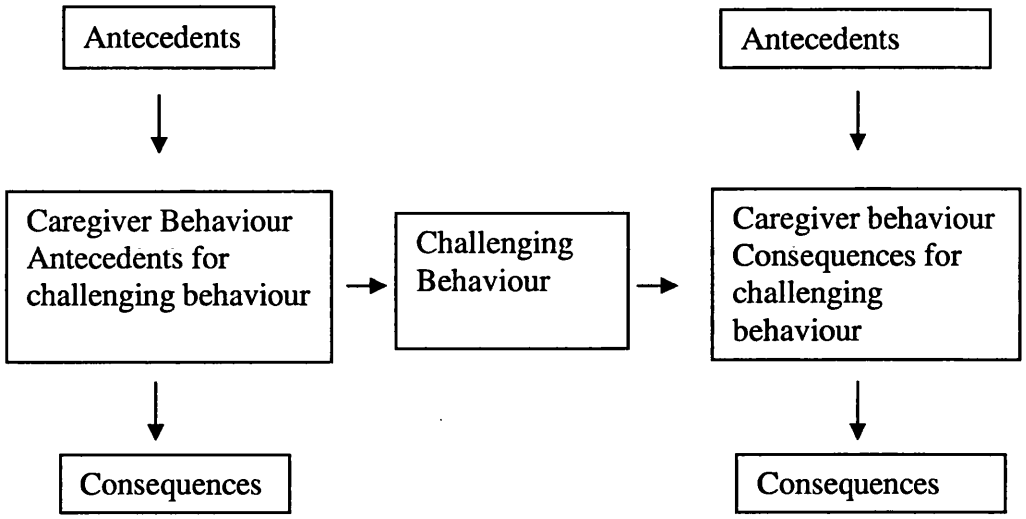
both the service users' and the carers' actions, thus explicitly acknowledging that both service users' *and carers'* behaviour has causes and consequences.

Historically, clinical practice has tended to focus on contingency management, and only in the last 15 years have clinicians become more interested in the ecology that the person finds themselves in (Allen, 1999; Martens & Witt, 1988). Accordingly, the emphasis has shifted from purely focussing on the reinforcement of behaviours, for example the response of carers. Instead, attention is focussed on the antecedents to the behaviour, and changing these is viewed as fundamental to changing the behaviour. The term 'setting conditions' is now frequently used to describe the general contextual factors which 'set the scene' for behaviours to occur. Setting conditions can include the person's learned experience, life events, social climate, physical climate, health, personal attitudes and belief and emotional state (Clements & Zarkowska, 1994). Understanding and altering the setting conditions is now seen as an integral part of the management of challenging behaviour.

Contemporary behavioural models highlight the importance of understanding the setting conditions (Homer et al., 1990). However, the importance of understanding the carer's context is often overlooked. Hastings (1997) proposed the 'H' model for understanding challenging behaviour, in which the antecedents and consequences of the behaviour of the carer are incorporated (Figure 1). This represents a broadening of traditional behavioural models by including the antecedents and consequences of the carer's behaviour as well as that of the service user. These antecedents may influence initial carer behaviour that acts as an antecedent to the challenging behaviour. The carer response to challenging behaviour will also be influenced by

antecedents other than the challenging behaviour. For example, influences may include the personality of the carer, previous experience of challenging behaviour and staff support.

Figure 1 The 'H' Model of Challenging behaviour (Hastings, 1997)



Behavioural models concentrate on the process of reinforcement to understand how behaviours develop and whether they are maintained. If a behaviour is followed by a positive event then it is said to be positively reinforced, whereas if it is followed by a cessation or omission of an negative event then it is negatively reinforced (Lovell, 2000). This is true for both the carer and the client. The client's behaviour may be both positively and negatively reinforced, whereas the behaviour of staff is more likely to be determined by negative reinforcement (Hastings & Mitchell, 1998). For example, if a client becomes aggressive they may obtain staff attention or food (positive reinforcement) whilst being removed from a noisy environment (negative reinforcement). This aggression is likely to be unpleasant for carers, and so they will seek to stop this aversive stimulus quickly (negative reinforcement). Thus, considered from a behavioural perspective, challenging behaviour can be understood as a complicated interactional cycle, in which both clients and carers seek to obtain reinforcement. In some circumstances, the immediate behavioural responses of carers can act in ways that foster the long-term maintenance of challenging behaviours (Oliver, 1995).

Hastings' model highlights the co-dependence of the carer's and the service-user's reinforcement schedule and thus stresses the importance of understanding the carer's, as well as the client's, experience and behaviour. There are many factors that influence the carer's behaviour when working with people who are defined as having challenging behaviour. These include the setting conditions described above in relation to the service user. However, in understanding the interactional cycle that maintains the challenging behaviour attributions about the behaviour and emotional reactions to it may be of particular importance.

The emotional response of the carer to the service-user and their behaviour is likely to form a crucial part of this process as *both* a response *and* a stimulus. The carer's initial emotional response to service-user behaviour is likely to then play a significant role as a stimulus in determining how they respond to this behaviour. This response is likely to be crucial in determining which behaviours are reinforced and maintained. Thus, understanding the emotional response of carers to challenging behaviour is important to understanding why they respond as they do, sometimes in ways that may, in the long term, maintain challenging behaviours that are distressing both for them and the service-user. It also helps us to understand more about the experience of carers working with people with challenging behaviour.

However, it is difficult to understand the emotional responses of carers without considering the attribution that they make carer make about the causality of challenging behaviour. Causal attributions may play a key role in determining the emotional response of the carer (Hastings & Brown, 2002; Dagnan, Trower & Smith, 1998). Thus, after a brief, initial discussion of the emotional response of carers' to challenging behaviour, the evidence relating to attributions about challenging behaviour is reviewed. I will then go on to discuss more fully carers' emotional reactions to challenging behaviour in the context of their link with attributions.

1.4 Emotional Reactions to Challenging Behaviour

There is consistent evidence indicating that carers experience challenging behaviour as aversive. Bromley & Emerson (1995) found that carers typically experience a

range of negative emotions in response to challenging behaviour, including annoyance, anger, fear, disgust and despair. As well as the immediate effect on client interaction, Bromley and Emerson note that the most prevalent types of emotional response (sadness, annoyance and despair) are consistent with the process of burnout.

The emotional response engendered by challenging behaviour may vary according to several factors. The type of challenging behaviour may be an important determinant. Bromley & Emerson (1995) found that care staff tended to respond with annoyance, anger and fear to episodes of aggression, whereas they responded to episodes of self-injury with sadness, despair, annoyance, anger and disgust. A wide variety of factors may also influence the nature and intensity of the carers' emotional reaction to challenging behaviour. For example, Tynan & Allen (2002) report that carers may be more likely to become angry with people with mild learning disabilities as opposed to those with more severe disabilities. This may be a result of attributions made about the controllability of the challenging behaviour which are discussed in the next section.

Mitchell and Hastings (1998) developed a scale to measure the emotional response of carers to challenging behaviour. They used previous research to collate possible emotions experienced by care staff and then used factor analysis to analyse the data. They found that carers did not report any positive emotions when working with challenging behaviour, and that their negative emotions loaded onto two sub-scales: fear/anxiety and depression/anger. They suggest that understanding which of these two factors care staff are primarily experiencing may help to understand their help-offering behaviour. They hypothesise that fear/anxiety emotions may be more likely

to cause the carer to withdraw from the situation, whilst depression/anger responses might initiate more punitive behaviours.

In summary, it can be seen that, unsurprisingly, carers consistently report that challenging behaviour elicits a negative emotional response. The strength and type of emotional response may depend on a variety of factors, including the characteristics of the service user and the type of behaviour. Emotional reactions to challenging behaviour are discussed more fully when they are considered in the context of attributions about challenging behaviour.

1.5 Attributions about Challenging Behaviour

Attribution theory has been used to try and understand the mechanisms by which different presentations of challenging behaviour produce varying types and intensities of emotional reaction. It broadens behavioural models to incorporate cognitive components as well. There has been a considerable amount of research investigating the attributions that carers make about challenging behaviour, particularly in the last 10 years. I will initially review research relating to the types of attributions made about challenging behaviour, and then discuss the links between these attributions and carers' emotional responses.

When individuals make inferences about the cause of their own behaviour or the cause of another's behaviour they are making what is known as a 'causal attribution' (Tynan & Allen, 2002). Carer's causal attributions about challenging behaviour are likely to be important in understanding their reaction to the behaviour. These beliefs

about the cause of the behaviour may also stimulate an emotional response, which may again influence their behaviour. I will first outline the findings of Bromley & Emerson (1995), Hastings (1995) and Berryman, Evans & Kalbag (1994). In these studies the researchers asked respondents about their causal attributions in relation to real caring situations.

Bromley & Emerson (1995) identified 70 individuals with challenging behaviour. They asked staff working with these individuals why they thought they engaged in this behaviour. The 5 most frequent responses were internal psychological state or mood (41% of staff), past environment (26%), current environment (26%), self-stimulation (24%) and a form of communication or control of others (23%). They found that attributions about the cause of the challenging behaviour varied with the age and gender of the service user. For example, challenging behaviours shown by female service users were more frequently associated with internal biological causes. Both current and past environments and internal psychological states were rated as likely causes of challenging behaviour. Importantly, these are factors over which carers feel they have little control. This contrasts with models (e.g. the 'H' model of challenging behaviour (Hastings, 1997)), in which interactional factors are emphasised as the mechanism by which challenging behaviours are maintained.

Hastings (1995) asked carers to consider general factors that might cause challenging behaviour using content analysis. He found that social reinforcement was the most frequently cited cause of challenging behaviour (79%), followed by communication and expression (68%), physical environment (58%) and emotional states (58%). Despite carer's recognising that challenging behaviours may be often a reasonable

response to the situation the person finds themselves in, 74% of staff believed that behaviours were intentional. Berryman et al. (1994) asked staff about the causes of challenging behaviour. In line with Hastings (1995), they found that social reinforcement was the most common attribution made about the cause of challenging behaviour (90%), followed by emotions (74%), task/environment (53%), medical problems (44%), intrinsic reinforcement (37%) and communication (35%).

The difference in results in these studies may be due to a number of factors. Hastings (1999) had a small sample size of 19 and so his data may not be representative, whilst Bromley and Emerson (1995) do not report the overall size of their sample and this again limits the generalisability of their results. Furthermore, they do not provide information about their sample, such as age or level of experience, which may influence carers' attributions about challenging behaviour. A further influence on results may have been that Hastings (1999) and Berryman et al. (1994) did not specify an individual target for participants to think about, whereas Bromley and Emerson asked participants to consider a specific service user.

Both of these studies asked participants to consider real service-users. Other studies have used fictional vignettes to assess the attributions carers may make about challenging behaviour. Hastings, Remington & Hopper (1995) recruited care staff working in institutions. They found experienced care staff made different attributions about challenging behaviour depending on its topography (the type of challenging behaviour). They gave one of three vignettes to participants, describing either self-injurious, aggressive or stereotyped behaviour. Experienced care staff were likely to view stereotypy as a self-stimulatory activity, as opposed to aggression or self-injury,

which were more likely to be deemed to have a social function or be of biological origin. In contrast to this, inexperienced care staff gave less clearly distinguished causal attributions for different topographies.

Hastings, Reed & Watts (1997) investigated these differences further. In a sample consisting of staff working in community settings they again compared differences in attributions made by experienced and inexperienced care staff. Boredom, enjoyment and 'to feel better' were more likely to be rated as causes of stereotypy than for aggression. In contrast, provocation from others and a wish for attention were more likely to be rated as causes of aggression than stereotypy. Self-injury was more likely to be attributed to provocation from others than stereotypy. Experienced care staff were more likely to attribute behaviours to environmental, emotional and biological factors than inexperienced staff. No differences were found between inexperienced and experienced carer's endorsements of behavioural attributes.

However, these studies do not reveal the mechanism by which experience affects attributions. For example, these results may represent learning through direct experience of challenging behaviour, training and/or supervision in which challenging behaviour is discussed, informal discussions with others or a combination of these factors.

Thus, it can be seen that the level of experience, age, gender, topography of the behaviour and methodology of the study may all influence carers' reports of the causes of challenging behaviour. I will now discuss research that attempts to understand the link between the type of attribution made and the emotional reaction

of the carer. Much of this work has been theoretically underpinned by Weiner's (1980) 'Cognitive (Attribution) - Emotion - Action Model of Motivated Behaviour'.

Weiner (1980) argued that attributions on three dimensions of causality (locus, stability and control) are likely to play significant roles in determining the emotional response of the individual. He outlined two main hypotheses. In the first, he theorised that if carers view behaviour as under the control of the individual they are less likely to experience emotions such as sympathy and more likely to feel emotions such as anger or disgust. Weiner proposed this emotional reaction was crucial in determining whether help was offered. If negative emotions were experienced then help was unlikely to be offered but if sympathy was elicited then the person would be more likely to offer help. In his second hypothesis he argued that attributions would affect the perceived costs and benefits of helping (and thus helping behaviour). Thus, if attributions of stability about the behaviour are made, there are likely to be lower levels of optimism for change and thus less helping behaviour. These hypotheses have generated much useful research. However, the model also has deficiencies as a theoretical underpinning for care staff's behaviour when working with challenging behaviour, which I will attempt to outline, as well as the empirical evidence that supports these criticisms.

Dagnan et al. (1998) tested this model using six vignettes of different challenging behaviours. All the participants were carers who worked with people with learning disabilities. They were split into two groups, according to whether or not they currently worked with people with challenging behaviour. Dagnan et al. (1998) hypothesised that these groups might react differently to challenging behaviour.

Each participant was asked to rate attributions of internality, stability and controllability, their optimism for changing the behaviour and their emotional reaction to the behaviour, for each of the six vignettes. They found that the group of carers who worked with people with challenging behaviour were more likely to evaluate the person positively and reported that they would be more likely to offer extra help. Across both groups, a path analysis showed that helping behaviour was best predicted by optimism, which was best predicted by negative emotions, which was best predicted by attributions concerning controllability. They concluded that if carers believe that challenging behaviour is under the control of the individual, they are more likely to feel negatively towards them, which will reduce optimism about their behaviour changing, which will in turn reduce the likelihood of them offering help. Although this appears to support the model, it is actually merging the two hypotheses made above, and thus cannot be said to directly test either one. However, they did not find the expected link between positive emotions and propensity to offer help. Thus, the study at best gives partial support to Weiner's model of helping behaviour, and has some results that contradict those predicted by the model.

Although Dagnan et al. (1998) used different challenging behaviours in their vignettes they did not attempt to assess the impact that the different types of behaviour might have on carers' causal attributions. Using the same basic paradigm, Stanley and Standen (2000) prepared six case studies based on actual incidents instead of vignettes. There were three topographic levels (aggression, destructiveness and self-injury) and two dependency levels (varying in areas such as communication and independent living skills). All participants worked with service users with challenging behaviours. The participants read the vignettes and were then asked to

rate the behaviour in terms of controllability, stability and locus of control. They were also asked how optimistic they felt about the behaviour changing, their own emotional response and the likelihood that they would offer help. Stanley and Standen (2000) hypothesised that the more outward directed the behaviour was, the more the service user would be seen to be in control of the behaviour and, therefore, the carer would feel more negative emotion, less optimism and be less likely to help.

The results gave partial support to the original hypotheses. Attributions of control were found to be greater with aggressive behaviours than with self-injurious behaviours, and greater with independent functioning than with dependent functioning. Stability was perceived to be greater with self-injurious behaviour than with aggression or destructiveness, and greater with dependent functioning than independent functioning. Negative affect was greater with aggressive and destructive/independent functioning and positive affect was greatest with self-injurious/dependent functioning. There was also a positive relationship between propensity to help and positive affect.

The study provides some support for Weiner's model, in particular that positive affect plays a mediating role between attributions and help offering behaviour. However, they also found that in some circumstances attributions that behaviour was stable were related to positive affect and a greater propensity to help, a result that was not predicted by Weiner's model. Also, Stanley and Standen (2000) did not study anger and sympathy emotions separately, as would be necessary in a strict test of Weiner's hypotheses. Again Weiner's model at best appears only partially supported.

Tynan & Allen (2002) further investigated the hypothesis that the level of dependency of the service user may affect the carer's attributions about the behaviour. They gave care staff a vignette describing challenging behaviour. Whilst the behaviour described was identical, in one condition the person was described as having mild learning disabilities and her support needs were described accordingly, whilst in another condition the person was described as having severe learning disabilities and again her supports needs described accordingly. Participants in the severe disability condition considered the behaviour to be significantly more challenging, less under the control of the individual and rated the biomedical explanation for the behaviour as more applicable. Thus, the cognitive level of the service user may in itself influence attributions about challenging behaviour and that carers may ascribe more control over behaviour to people with mild learning disabilities.

Weiner's model has provided a framework for investigating the relationship between emotional and attributional responses. These studies have lent partial support to his model, but overall have been inconclusive. It would appear that Weiner's model has only limited power in explaining the relationship between emotions, attributions and propensity to help. Furthermore, the relationship between propensity to help and actual helping behaviour has not been demonstrated. Jones and Hastings (2003) outline additional difficulties with the model. They highlight that staff often behave in ways that may serve to maintain challenging behaviours in the long term whilst extinguishing them in the short term. This might reduce distress in the short term, whilst increasing it in the long term. However, it is unclear whether this behaviour

would be classed as 'helping' in Weiner's model. There are likely to be a variety of views about what constitutes 'helping' in the context of challenging behaviour. For example, if a challenging behaviour is formulated as being maintained by positive social reinforcement then limiting the reinforcement by refusing to interact when the service user is challenging may be a potential intervention. Thus, withdrawal may be considered a helping behaviour. However, this would also be commensurate with a disgusted emotional response to the behaviour, which would not predict a helping behaviour. Thus, different interactions between emotional responses, carer behaviour and what is considered to be helping behaviour may limit the predictive utility of the model. In an attempt to demonstrate the limitations of the model Jones and Hastings (2003) asked participants to watch a video of simulated self-harm. They found that when the self-injury was maintained by attention, participants reported confident/relaxed affective responses when they attributed the self-injury to causes that the actor in the video could control. They were more likely to report depression/anger responses when the cause of the self-injury were factors external to the individual. In this paradigm attributions of controllability increased positive affective responses, counter to the predictions of Weiner's model. This led Jones and Hastings to conclude that Weiner's model cannot be straightforwardly applied to staff working with challenging behaviour and that its applicability may be at least partly dependent on the topography of the behaviour.

Jones and Hastings (2003) argue that a consistent limitation of research addressing attributions, emotions and predicted helping behaviours is the difficulty in applying these findings to real life situations. This problem is also highlighted by Stanley and Standen (2000), who warn against ascribing predictive validity to these findings

when considering the acts of individual carers. They argue that these studies may describe how topography of behaviour and dependency of service-user result in a 'general level of commitment' rather than a specific response to a specific service-user. Thus, it may be difficult to trace the link between these vignette based studies and actual carer experience and behaviour. Below I outline two studies that have attempted to increase the external validity of the experimental paradigm.

Staff teams may be powerful cultures which influence behaviour (White et al., 2003) and beliefs about whether significant others think that an individual should behave in a certain manner are likely to be important (Hastings & Remington, 1994). This culture may influence causal attributions about behaviour, a process not investigated in previous research. In an attempt to develop an experimental analogue of informal staff culture None, Jones and Hastings (2003) asked participants to listen to one of four different short passages prior to watching a scripted video of an incident of challenging behaviour. The different passages were designed to manipulate attributions about the controllability and stability of the behaviour by giving different descriptions of the actor in the video. This was an attempt to simulate informal staff culture. They found that these descriptions influenced participants to make attributions about causality and stability of the behaviours in the directions expected, and that these attributions significantly influenced participants' optimism for change. They concluded that the prevailing staff group perception of behaviour is likely to influence data or opinions provided by individual members. However, the simplicity of the passages used to simulate informal culture, compared to the potentially complex reality of this culture, may mean that the external validity of this study is

still questionable. This is especially so since the participants had no experience of working with people with learning disabilities.

In a further attempt to design a more ecologically valid study Mossman, Hastings and Brown (2002) substituted vignettes for a scripted video depicting an episode of self-injury. There were four conditions, one showing the self-injury being carried out to obtain positive reinforcement, one to obtain negative reinforcement, one in which the self-injury was not related to any predictable events and a control condition in which there was no self-injury. They found that the attributions that carers made about possible functions of the behaviour were significant determinants of their emotional response to the behaviour. Participants reported significantly more negative emotional reactions when the self-injury was presented as a result of negative reinforcement processes (in this case, demand avoidance) than when the self-injury was presented as maintained by unspecified non-social variables. This group also reported more depression/anger emotional responses than those who saw the video in which the behaviour was positively reinforced.

Despite attempts to increase external validity, both of the above studies used experimental paradigms and so their relevance to clinical situations may be limited. Care staff may respond differently to real incidents of challenging behaviour compared to their behaviour predicted by experimental studies based on vignettes. When recalling a real incident, staff reported stronger negative evaluations of their clients and stronger negative emotions when compared to a vignette (Wanless & Jahoda, 2002). Although the associations between attributions and emotions were consistent with Weiner's model they were less consistently related to helping

behaviour. For example, when recalling a real incident in which they were faced with aggressive behaviour, even though they believed it was under the control of the individual, and they felt high levels of negative affect, they reported that they were *more* likely to engage in helping behaviour. Whilst there is obviously potentially a great difference between self-report and actual behaviours, this again highlights the importance of caution when hypothesising about the effect that the attributions and emotional reaction of the care staff will have on their behaviour.

The studies discussed above have tended to focus on attributions concerning controllability and stability of behaviour as, according to Weiner's model, these are crucial in determining the emotional reaction of care staff. However, there are a wide range of possible causes of challenging behaviour. Hastings (1997) developed a scale for measuring the different attributions that carers may make about challenging behaviour. He gave carers 33 possible reasons for challenging behaviour occurring and asked them to rate how likely they were as a cause of challenging behaviour, from very unlikely to very likely. The 33 items were divided into 6 domains, each with a different cause of the behaviour - biomedical, physical environment, learned positive (behaviours maintained by positive reinforcement), learned negative (behaviours maintained by negative reinforcement), stimulation and emotional. He found that carers found hypotheses about stimulation, positive reinforcement and emotions as the most relevant to understanding challenging behaviour. Hastings (1997) concludes that that carers tend to view challenging behaviour as having a wide range of possible determinants, a view consistent with contemporary behavioural models, yet some favour some possible causes over others.

Using this scale and the scale previously developed by Hastings and Mitchell (1997) to assess emotional reactions to challenging behaviour, Hastings and Brown (2002) found a relationship between staff causal beliefs about challenging behaviour and their emotional reactions. Staff working in schools for pupils with learning disabilities were more likely to feel negative emotions if they believed that behavioural factors (e.g. to get something one wants or to avoid uninteresting tasks) were the cause of the challenging behaviour. Hastings and Brown (2002) suggest that this may be because 'they emphasise causal factors external to the child' (p148) and participants thus felt more responsible for the behaviour and more stressed as a result. These results appear consistent with those of Jones and Hastings (2003) in which potential responsibility for behaviour may engender a greater negative emotional response.

These two studies suggest that care staff believe there is a wide variety of causes of challenging behaviour. These causal beliefs may be linked to their emotional reactions to this behaviour, though this has not been subject to full investigation.

In conclusion, it can be seen that attributions about challenging behaviour may depend on a wide variety of influences, including characteristics of the carer (level of experience, whether they work with challenging behaviour), the behaviour (the type of behaviour and the function that it serves), and the client (e.g. intellectual level, past experiences, emotional state). Some support for Weiner's (1980) 'Cognitive (Attribution) - Emotion - Action Model of Motivated Behaviour' has been found. However, the low external validity of these studies means that their predictive power

may be limited in understanding carer behaviour. More research is still necessary to understand how different attributions may be linked to different emotional responses.

1.6 Self-Efficacy

The difficulty in linking attributions, emotional responses and actual behaviour may be partly ameliorated by understanding more about carer beliefs about interventions. Beliefs about interventions are likely to be closely linked to attributions made about challenging behaviours. For example, one might reasonably expect that if carers attributed challenging behaviours to factors that they could not change (Bromley & Emerson, 1995), then they would be unlikely believe that they could implement an effective intervention. In this section I will first discuss the evidence about carers' beliefs about effective interventions before outlining the possible role of self-efficacy in determining staff behaviour.

Berryman et al. (1994) used vignettes to ascertain how staff would intervene with eight challenging behaviours. Staff reported that their most likely responses would be to change the task/environment (62%), use reinforcement (59%), or try to understand the cause of the behaviour (29%). Hastings (1996) reported that staff said that their preferred methods of management of challenging behaviour were distraction (39%), identify the cause of the behaviour (e.g. by asking others, observing, monitoring) (31%) and making the environment safe (29%). However, neither of these studies actually examine the carers' behaviour.

There are further reasons relating to staff beliefs and behaviour that may help to explain why some challenging behaviours endure. Hastings (1996) argues that some beliefs about appropriate interventions may contribute to the development and maintenance of challenging behaviours. For example, staff reported that changing a task or the environment are important ways of managing challenging behaviour (Berryman et al., 1994). However, whilst these strategies may be appropriate for some behaviours, they may reinforce challenging behaviours that are maintained by escape or avoidance contingencies. Staff also report that short term contingency management may be more important than long term behavioural strategies for dealing with challenging behaviour (Watts et al., 1997) and that their strategies for short and long term management differ (Hastings, 1997). This emphasis on short-term management may result in interactions that inadvertently reinforce challenging behaviours.

Another possibility is that even if staff understand the reasons for challenging behaviour and have an appropriate, clearly formulated plan for managing this behaviour, they do not feel confident in carrying out this plan. The role of self-efficacy in carers' reactions to challenging behaviours has not been widely researched. Perceived self-efficacy has been defined as:

> "beliefs in one's capabilities to organize and execute the courses of action required to manage prospective situations" (Bandura, 1995, p2).

The subjective belief of carers that they are able to manage the behaviour and positively affect those in their care is likely to be an important factor in their

interaction with the person they are caring for. Lazarus & Folkman (1984) emphasise that objective measures of the ability to have an effect on events are not necessarily as important as individuals' perceptions of their efficacy. Thus, although staff may demonstrate a sound theoretical understanding of how their interactions influence challenging behaviours, it may be their subjective perception of their ability to manage such behaviours that is crucial.

Hastings and Brown (2002a) used a 5-item scale to assess how confident carers felt in dealing with challenging behaviours presented by children with learning disabilities. This looked at feelings of confidence, control and satisfaction when dealing with challenging behaviours, as well as perceptions of the impact that they have on the behaviour and a rating of how difficult they find it to work with the challenging behaviour. They found that this measure of self-efficacy predicted levels of emotional response to challenging behaviour independently of levels of behavioural knowledge. This suggests that it may be more important to assess perceived levels of self-efficacy than behavioural knowledge in understanding the experience of care staff working with people with challenging behaviour. Hastings and Brown (2002) conclude that further replication is needed to establish a link between self-efficacy and emotional reactions, and that research is needed to develop our knowledge of what leads individuals to feel self-efficacious. They argue that further information is needed about self-efficacy, including how it is influenced by the individual's perception of their own skills or deficiencies, the barriers or facilitating factors in their own environment that influence their level of self-efficacy, how this changes over time and how it is related to emotional reactions.

Maternal self-efficacy has also found to mediate the relationship between the behaviour problems of children with autism and maternal anxiety and depression levels (Hastings & Brown, 2002b). They found that behaviour problems of children with autism were a significant predictor of maternal anxiety and depression. However, when self-efficacy was included in the analysis, they were no longer significant independent predictors of anxiety and depression, but self-efficacy was. Although this study does not involve paid carers of adults with learning disabilities, it suggests that self-efficacy may act as a mediating variable between difficult behaviours and negative emotions.

1.7 Broadening the Picture

In seems clear that attributions, emotions and perceived self-efficacy are likely to play an important role in the behaviour of support staff when managing challenging behaviour. However, the research described above focuses on the reactions of individual carers and pays relatively little attention to the wider social and organisational context. This context is likely to have a significant impact on the day-to-day interactions between care staff and service users. Support staff work within organisations that have their own cultures, and these organisations work within a wider political and economic context. The way that these services are organised is likely to have a significant effect on the way in which carers understand and respond to challenging behaviour.

As discussed above, 'challenging behaviour' is dependent on the social context of the individual. 'With very few exceptions, challenging behaviour is a function of the

setting in which the person finds themselves, and the reaction of others to their behaviour' (Cullen, 1999, page 15). Furthermore, the behaviour of staff is not just determined by their attributions, self-efficacy, knowledge and skills, but also the social context within which they are operating (Clements, 1993). Thus, to understand these interactions, it is necessary to take a step further back and understand something of the policy context within which challenging behaviour services operate. This can help illustrate some of the difficulties that support staff encounter when they are working with those whose behaviour is experienced as challenging.

Those identified as presenting 'challenging behaviour' have a wide range of needs, many of them not associated with the challenging behaviour. These needs may be addressed in a variety of services, for example, residential, respite, day-care, education, employment and forensic. By definition, behaviour that challenges services is likely to vary according to the setting, and individuals will present different challenges to different services. This heterogeneity of presentation means that policy addressing challenging behaviour must reflect the full range of clients' needs. Without such policy service providers will be unclear about exactly what they should and should not be providing to individuals (Clements, 1993).

However, attempts to formulate clear policies are undermined by a lack of agreement about the service factors that underlie high-quality process and outcome for people with challenging behaviour, for example if and when specialist challenging behaviour units are appropriate (Lowe et al., 1998). These issues, in addition to the issues previously discussed about defining challenging behaviour, and subsequently

gaining prevalence data, mean that it is difficult to provide a coherent policy addressing the management of challenging behaviour and a clear protocol for developing the most appropriate services and ensuring correct placements. Without these, services often struggle to identify the specific client group that they are serving and therefore how they define themselves. Thus, whilst it may be possible to define good practice on an individual level (for example, a full assessment and an attempt to meet the needs of the individual in a holistic manner) developing wider effective service contexts may be more problematic. Furthermore, placements are often made in response to crises or in the face of resource limitations (Alexander, 1996), which means that clients are often accepted by services when it is unclear whether that service is the most appropriate one.

Thus, at a policy level there is a considerable confusion about the best ways of responding to challenging behaviour. This may in turn lead to confusion at a local level, with a failure to develop clear aims concerning who the organisation is supporting, what its aims are and how it proposes to go about achieving these. Clear organisational aims are essential to ensure that that service has positive, realistic goals (Clements, 1993). Without clarity at an organisational level, there is likely to be confusion for staff on the 'front line'. At worst, support staff may be unsure whether they should be working with individuals when they challenge. Clear understanding of their remit and support to enable them to carry out this remit is crucial in enabling carers to work productively with clients. For example, developing an organisational culture in which challenging behaviour is seen as a response to different situations and interactions, rather than a stable and chronic characteristic of the individual, may empower staff to understand and manage such behaviour.

Clear remit and support to achieve these goals is crucial in providing a positive service. If the employer does not have a clear understanding of these and fails to effectively incorporate them into the service context it will be unlikely that staff can develop a sense of "what might constitute good quality work in the employer's eyes" (Clements, 1993, page 324).

Organisational characteristics are therefore likely to be an extremely important factor in determining quality of service. Understanding the nature of support needed and received by front line staff, and how this support is perceived by staff, is significant in understanding their experience of their job and how they might react when faced with challenging behaviour. Indeed, Hatton et al. (1999) comment on the responsibility of the organisation to reinforce the positive characteristics of their employees.

> 'The values of staff in terms of achievement and innovation also need to be reflected in the organisational cultures of services for people with intellectual disabilities if staff are to be highly motivated' (Hatton et al, 1999, page 215).

'Organisational support' is a broad term that covers a number of facets, including work load, job variety, social support, feedback on job performance, job security, and ambiguity and conflicts about a person's role in the organisation and organisational structures (Hatton et al., 1999). Effective organisational support may help reduce occupational stress. This is important as occupational stress has a number of adverse

affects. It affects workers' health (Rose, 1995), their professional performance (Hatton et al., 1995) and their job satisfaction and likelihood to leave their employment (Guppy & Gutteridge, 1991).

Hatton et al. (1999) carried out a large-scale (n=450) survey of staff in a range of services for people with learning disabilities (e.g. NHS residential services, social service residential, educational and community teams). They asked staff about nine dimensions of organisational culture (e.g. innovation, rewarding staff, stability) and compared participants' views of the organisation's 'real' versus 'ideal' culture. They found evidence that there were variations across individual services, indicating that specific services had distinct organisational cultures and that staff within services broadly agreed on the beliefs, values and practices of different organisations. Staff generally rated organisations as being less than ideal on all aspects of organisational culture except on the dimension of demand, namely the demands the organisation made on its staff, which were generally found to be higher than ideal. Overall, greater differences between real and ideal organisational culture resulted in greater alienation from the organisation, greater use of wishful thinking, less moral commitment to the organisation, greater job strain, greater intention to leave the organisation and reduced work satisfaction. These results highlight the need to look further, both at organisational factors and the need to link organisational culture with staff performance and service quality, and individual staffs' perceptions of the organisation.

The participants in the Hatton et al. (1999) study came from a wide variety of disciplines and were operating in various settings. McVilly (1997) investigated the

experiences of staff working in residential settings. He again looked at discrepancies between 'real' and 'ideal' service characteristics. He reported that support staff expressed considerable dissatisfaction with the low amount of preparation and training that they had received for a wide variety of tasks, including assisting clients to make choices and supporting clients with challenging behaviour, despite their belief that these required extremely important skills. Few of those interviewed saw their work as a long-term career, with most citing pay, opportunities for further education or career advancement as the main reasons for seeking alternative employment. He suggests that accredited courses, which address the issues of lack of preparation and are linked to wage incentives, may reduce staff turnover and improve consistency, and thus quality, of care.

Both of the above studies focus on the effect of organisational culture on staff, without addressing possible effects on the residents. Gillett & Stenfert-Kroese (2003) identified two community based-units that were similar in terms of number and characteristics of residents, operational policies, staffing levels and training opportunities. Each respondent completed the Organisational Cultural Inventory (OCI; Cooke & Lafferty, 1989), which lists 120 statements about behaviour and personal styles. Respondents rate the degree to which people at work are expected to behave in that way. The two units differed significantly in some areas of organisational culture, specifically norms of confrontation and criticism, competition (competing rather than co-operating) and perfectionism (never making a mistake and setting unrealistically high goals). The OCI allows overall assessment of 3 dimensions of organisational cultural style - constructive, aggressive-defensive and passive-defensive. One house was found to have significantly greater scores on the

aggressive-defensive dimension, and was deemed to have a more negative organisational culture. A standardised measure (COMPASS, Cragg & Look, 1992) was then used to ascertain the extent to which lifestyles of the residents in each house were adhering to normalisation principles. They found that the group of residents in the house with the more positive organisational culture (as measures by respondents scores on the OCI) had significantly better quality of life as measured by COMPASS. Although there are many limitations to this study, including its small size, difficulty in defining positive outcome as adherence to normalisation principles, and the failure to include all of the staff on the units, it provides tentative preliminary evidence that staff culture may be related to resident quality of life.

1.8 Staff Stress

Organisational factors are prominent in the aetiology of occupational stress. Clements (1993) outlines some of the successful characteristics that an organisation seeking to promote personal development in clients, including those who behave in socially unacceptable ways, is likely to have. They include promoting participation, mutual value, respect and innovation, and competent leadership operating in a flat, open system. Researchers have sought to develop models of organisational functioning which outline different facets of organisational culture on which to base research. Payne (1979) proposed that occupational stress is considered a function of the interaction between demands, supports and constraints. Demands are those aspects of the environment that need attention and demand a response, support is the degree to which the environment helps the individual meet the demand, and

constraints are the aspects of the environment that impede the individual from meeting the demands.

There are many demands placed on carers. Caring for people with learning disabilities in the community is a stressful job, even when they are not exhibiting challenging behaviours (e.g. Carr, 1991; Mansell, 1995). Hatton et al. (1998) report that approximately one-third of staff caring for people with learning disabilities report high levels of stress indicative of a mental health problem, compared to 27% of general health service staff and 16% of the UK adult population. Challenging behaviour places increased demands on an individual and a service. Difficulty in understanding unpredictable challenging behaviour and formulating effective, progressive management strategies, whilst coping with "the daily grind" are among the main sources of stress reported by carers (Bromley and Emerson, 1995). As shown above, challenging behaviours can evoke a range of negative emotions in carers, and these emotions are themselves extra demands that also have to be managed by carers.

There is evidence to suggest that these extra demands affect those working with challenging behaviour. Staff working with people with challenging behaviour had higher levels of anxiety than staff working in houses where there was no challenging behaviour. They may also feel less supported practically, be less clear about identifying risk situations and have lower job satisfaction (Jenkins, Rose and Lovell, 1987). This contrasts with expectations that those who work with people with challenging behaviour need additional support from the organisation they work for. This suggests that staff working with people who display challenging behaviour have

higher levels of stress. Staff members working in specialist challenging behaviour units have been found to be significantly more emotionally exhausted than staff working in mental health settings (Chung, Corbett and Cumella, 1995). Higher stress levels have been linked to less frequent and less positive interactions with service users (Lawson & O'Brien, 1994; Rose et al., 1998).

Organisations may be experienced as supporting or constraining. Although these are two distinct constructs they are usually measured along one bipolar dimension. High levels of occupational stress are likely where there are high levels of role ambiguity, role conflict and role overload (Dyer and Quine, 1998). Role ambiguity concerns the extent to which individuals know what is required of them by the organisation. Role conflict occurs when individuals are asked to carry out two or more incompatible requests, or they are asked to carry out activities with which they personally disagree. Role overload consists of having too much work or too many responsibilities. Care staff completed questionnaires asking them about these constructs, as well as the characteristics of the residents that they were caring for and what they felt the demands of the job were. Their level of burnout was also assessed using the M.B.I. (Maslach et al., 1986).

When asking about the demands of the job, in line with previous research (Corrigan, 1993; Hatton et al., 1995) Dyer and Quine (1998) found resident characteristics were the most significant demand placed on staff, with the unpleasant habits of the residents and their challenging behaviour important factors. However, the organisation also placed demands upon carers. Lack of opportunity to participate in decision-making and role overload were recognised as significant stressors, as were

role ambiguity and role conflict. Other staff were identified as the main source of support, whilst a general lack of morale, lack of support from management and low levels of involvement in decision making were considered constraining factors. Burnout was positively correlated with resident characteristics, role ambiguity and role conflict, and negatively correlated with support. Thus, Dyer and Quine found support for the link between occupational stress and role conflict, role ambiguity and role overload in learning disability services.

Mitchell and Hastings (2001) looked at occupational stress in staff working with people with challenging behaviours. They looked at the link between burnout, emotional reactions to challenging behaviour and coping style. They found that the greater the negative emotional reaction that the participant reported the greater their score on the depersonalisation and emotional exhaustion sub-scales of the Maslach Burnout Inventory. (Maslach et al., 1986). This suggests that care staff may respond in a depersonalised way to service users, and would try to avoid interaction with them. This supports theories suggesting that the emotional reaction to challenging behaviour is likely to significantly affect the behaviour of the carer, and that organisations that do not address issues of burnout in staff who are working with challenging behaviour may be compromising the service that they are offering.

Thus, a variety of factors are important in determining organisational culture and how supportive or constraining the organisation is perceived to be by direct care staff. One aspect of staff support that has been much discussed in the literature is training.

1.9 The Role of Staff Training

Generally within learning disability services significant emphasis is placed on staff training. However, there is contradictory evidence as to the prevalence and effectiveness of staff training. Hogg & Mittler (1987) argue that the quality of the service provided is likely to be highly dependent on the provision of relevant staff training. When working with people with challenging behaviour, staff need understanding and insights into the cause of the behaviour in order to prevent punitive or abusive responses, and training may be important in developing these (White et al., 2003). The recent introduction of the compulsory Learning Disability Award Framework (LDAF), which provides a framework for worker training, and the concurrent expectation that 50% of front line staff should have achieved at least NVQ level 2 by 2005, has given training in Britain increased profile and importance in concurrence with emphasis placed on training by the government. Both managers and staff report that skills in the management of challenging behaviour are extremely important. However staff may feel considerable dissatisfaction with their level of training, which may be limited in scope (Smith et al., 1996) and leaves them feeling under prepared to manage challenging behaviours (McVilly, 1997). Thus, staff may feel they need increased provision of training.

However, other research has suggested that training may produce little change in staff behaviour, even if staff report that the training event has been successful (Smith, et al., 1992). Even if the training results in a change in staff behaviour this may not result in client change, such as a reduction in challenging behaviour (Seys & Duker, 1988). In order for training to be effective it needs to be closely linked to work with

clients (Clements, 1992) and must avoid using solely didactic methods (Martin, 1992). Cullen reports that training will not result in a change in staff performance unless there is an 'additional emphasis on organisational change.' However, unproductive training methods have persisted, with short course training in one off blocks common. Clements (1993) reports that this form of training may be popular because it

> 'causes no disturbance to organisations and established systems, provides staff with time away and some material comfort, and provides trainers with powerful social and material reinforcement.....it is a powerful reminder of the lack of pressure to achieve real world change for people with learning disabilities' (Clements, 1993, page 327)

Thus, the success of training may be dependent on the degree to which it is embedded within the organisational context and linked to specific situations and people. Without this it is likely to result in little change in carer or client behaviour.

1.10 The Role of Supervision

Where there is generally an expectation that care staff should receive regular supervision, relatively little is known about the role of supervision in helping staff respond appropriately to challenging behaviour. It has been shown that some care staff's understanding and reaction to challenging behaviour runs counter to practice that will promote the extinction of this behaviour in the long term. It has also been shown that caring for people with learning disabilities who also show challenging

behaviours is a stressful job. Both of these factors indicate the need for sustained staff supervision (Ager & May, 2001). Parson and Reed (1995) demonstrated the importance of feedback about performance and Harchik et al. (1992) argued that feedback is essential to maintain behaviour changes of staff. Jenkins et al. (1997) found that staff support, which included feedback from the direct line manager, was a mediating factor for depressive negative emotional reactions.

Thus, there is some evidence that good quality supervision may be an important factor in supporting staff that work with those with challenging behaviour. However, its relation to staff attributions about challenging behaviour and their perceived self-efficacy is unknown. It is still unclear how much supervision staff receive, whether they discuss the challenging behaviour of residents during in supervision, and whether they find these discussions useful for managing the challenging behaviour of their residents.

1.11 Emergency Procedures

When working with challenging behaviour it is likely that support from management may be needed at unpredictable times. Staff may be faced with difficult behaviours that, at their worst, may place themselves or others in danger. However, there has been little research investigating how easy this support is to access, and how helpful staff find it when they do access it.

1.12 Implications of the Literature for The Present Study

The rationale for this study is presented. Methodological issues concerning the measurement of organisational support are then discussed.

1.13 Rationale of the present study

This study has two main aims. Firstly, relatively little is known about the amount of support staff receive in relation to the management of challenging behaviour, and whether they perceive this support as helpful. This study surveyed the support specifically addressing challenging behaviour offered by organisations, and staff's perception of the helpfulness of such support.

Secondly, this study aimed to investigate some of the effects of organisational support in three areas that have been highlighted as important factors in carers' management of challenging behaviour. They are self-efficacy (Hastings & Brown, 2002), causal attributions about challenging behaviour (e.g. Bromley & Emerson, 1995; Dagnan et al., 1998; Mossman et al., 2002), and emotional reactions to challenging behaviour (e.g. Mitchell & Hastings, 1998; Tynan & Allen, 2002).

There is considerable research investigating causes of different attributions and emotional reactions to challenging behaviour. Although there is less research related to carer self-efficacy, it has been implicated as an important concept in understanding staff responses to challenging behaviour, and one that is related to both attributions and emotional reactions. However, there is little research directly assessing the effect

of organisational support on these attributions and emotions. Indirect evidence suggests that organisational factors are likely to influence carers' general emotional well being (Hatton et al., 1998), and that this is likely to result in a change in the interaction between carers and service-users (Mitchell & Hastings, 2001; Lawson & O'Brien, 1994). However, no research has **directly** assessed the influence of staff support on emotional reactions to challenging behaviour. There is also little research assessing the impact of staff support on self-efficacy and causal attributions about challenging behaviour.

1.14 Issue Inherent in Investigating Staff Support

Previous research has highlighted the importance of the subjective perception of staff support and culture (e.g. Gillett & Stenfert-Kroese, 2003; Blumenthal, Lavender, & Hewson, 1998; Alexander & Hegarty, 2000). This includes staff's perceptions of factors such as role ambiguity and overload, supports and demands, actual and ideal organisational culture and job satisfaction. Whilst these are important factors in supportive organisations, staff support provision is rarely assessed according to more objective criteria (e.g. quantity of support offered). Bell and Espie (2002) asked staff whether five supportive aspects of organisational culture were available, including staff meetings and a staff appraisal system. However, frequency and helpfulness of these support structures was not considered, and the provision of specific support around challenging behaviour was not examined.

Thus, there is little data available on the relationship between provision and frequency of support and how supportive staff perceive an organisation to be. The

data is particularly sparse when considering the relationship of specialist support addressing the management of challenging behaviour to staff's overall, subjective perceptions of the organisational culture. It is also important to understand which facets of support may have a stronger influence on other important factors, including attributions, emotional reactions and self efficacy when working with service-users who show challenging behaviour. Clearly, if staff report that support is offered around challenging behaviour but it does not appear to be affecting these variables then careful consideration must be given to its effectiveness.

Another consequence of the tendency to rely on the subjective report of staff members in assessing staff support is the relative lack of knowledge about the opinions of senior staff. Little is known about the opinion of managers on the support that staff receive. Discrepancies in the perception of support between care staff and manager could result in a mismatch between support need and actual support provision. The only identified evidence suggests that managers may tend to report greater support than staff, though this evidence is very limited (McVilly, 1997)

1.15 Aims of the Present Study

This section outlines the aims and research questions of this study.

1.16 Main research question

The primary research question was: Does organisational support have an affect on paid carers' attributions about the cause of challenging behaviour, their emotional

reaction to challenging behaviour, and their self-efficacy in dealing with challenging behaviour?

This question was addressed using a quantitative approach. Correlations and multiple regressions were used to determine the relationships between variables.

In order to address this question, residential units for people with learning disabilities were approached. Having ascertained that the house contained at least one person whose behaviour was described as challenging, the researcher attended a staff team meeting and asked staff to complete the questionnaires. A small number of questionnaires were also returned by post.

The research aimed to address six questions, namely the primary research question and five closely related issues:

1) Does organisational support have an effect on staff's attributions about the cause of challenging behaviour, their emotional reactions to challenging behaviour and their self-efficacy in dealing with challenging behaviour?
2) How frequently do staff receive support in managing challenging behaviour, and do they find this support helpful?
3) Do managers and support staff have similar views of the frequency and helpfulness of support provided/received in managing challenging behaviour?
4) Is support specifically focussed on challenging behaviours related to the staff's overall perception of the organisation as supportive or unsupportive?
5) Does staff support increase self-efficacy in managing challenging behaviour?

6) Does self-efficacy mediate the relationship between negative emotional reactions to challenging behaviour and staff support?

The research questions are discussed in more detail below:

1) Does organisational support have an effect on staff's attributions about the causes of challenging behaviour, their emotional reactions to challenging behaviour and their self-efficacy in dealing with challenging behaviour?

As noted, attributions about challenging behaviour, emotional reactions to challenging behaviour and self-efficacy when managing this behaviour have been identified as important factors in understanding the interaction between care staff and service-users. Levels of perceived staff support have been found to be important in determining occupational stress and burnout, and these have been linked to changes in the interaction with service-users. However, little is known about the effect of staff support on attributions, emotional reactions and self-efficacy. Little is also known about the relative effects of general support and positive organisational culture, and specific support around the management of challenging behaviour.

This study will use two measures of staff support. One will ascertain levels of specific support around challenging behaviour, whilst the other will measure more subjective aspects of staff support and satisfaction. A regression will then be carried out to determine if these scores are related to staff's summed scores on three questionnaires measuring attributions, self-efficacy and emotional reactions to determine possible relationships.

2) How frequently do staff receive support in managing challenging behaviour, and do they find this support helpful?

Care staff consistently report the behaviour of service-users as a major source of stress in their job (e.g. McGill, 1997; Dyer & Quine, 1998). Thus, it would be expected that an important component of an organisation that is experienced as supportive would be the provision of specific support in managing challenging behaviour. However, the degree to which staff receive this support is rather unclear. This study aimed to survey the frequency of supervision, training and team meetings offered to staff. Participants were asked whether they discussed the challenging behaviour of service-users at these times, and how useful such discussions were. They were also asked about the availability and helpfulness of written guidelines and management 'on call' systems for dealing with emergencies. More global job satisfaction and perceived organisational supportiveness was also measured. Thus, a distinction was made between subjective perceptions of general supervision and support, and the frequency and helpfulness of specific support related to the management of challenging behaviour.

3) Do managers and support staff have similar views on the frequency and helpfulness of support provided/received in managing challenging behaviour?

In previous research a discrepancy has been found between the amount of support carers report to be receiving and the amount that managers believe them to be, with carers reporting receiving less support than managers believed they were (McGill, 1997). Thus, as well as asking care staff, managers were asked about the amount of

support provided to staff specifically focused on service user challenging behaviour, and how helpful they thought staff found this. This then allows a direct comparison between the reports of care staff and their managers about the support that they receive/provide.

4) Is support aimed at the understanding and management of challenging behaviour related to the individual's overall perception of the organisation as supportive?

As discussed above, organisational support was divided into support specifically addressing challenging behaviour and more general organisational culture. Important features of a generally supportive organisation might include role clarity, feedback from line managers, support in difficult situations and identification of risks and clearly defined procedures to manage these risks (McGill, 1997; Dyer & Quine, 1998; Hatton et al., 1999; Gillet & Stenfert-Kroese, 2003;). Thus, staff perceptions about such factors were assessed in this study as well as the frequency and usefulness of support around challenging behaviour. The relationship between the two was assessed and their relative relationships with self-efficacy, emotional reactions and attributions about challenging behaviour examined.

5) Does staff support increase self-efficacy in managing challenging behaviour?

Perceived carer self-efficacy in managing challenging behaviour has been found to be an important factor worthy of further research (Hastings & Brown, 2002). It is hypothesized that self-efficacy in managing challenging behaviour is linked to the support offered by the organisation. If carers were regularly discussing challenging

behaviour in a way that they find useful, either in supervision, team meetings or training, one would reasonably expect this to improve their confidence in dealing with such behaviour. Similarly, if organisations have well-defined procedures for recognising and managing challenging behaviour and staff are clear about what is expected of them and receive regular feedback, one might reasonably expect these to increase their confidence in managing challenging behaviour.

6. Does self-efficacy mediate the relationship between staff support and negative emotional reactions to challenging behaviour?

Mitchell and Hastings (2002b) found that self-efficacy mediated the relationship between behavioural problems of children with autism and negative emotions. This study asks whether self-efficacy mediates the possible relationship between staff support and emotional reactions to challenging behaviour. It would be expected that increased levels of staff support would reduce general levels of negative emotions (Harris & Rose, 2002) and that it may also reduce levels of negative emotion associated with challenging behaviour (Jenkins et al., 1987; Mitchell & Hastings, 2001). This study aimed to assess whether self-efficacy mediated this process.

Baron and Kenny (1986) described four conditions necessary for mediation. They are:

i) The initial variable correlates with the outcome variable. In this case, that staff support correlates with emotional reactions to challenging behaviour

ii) The initial variable correlates with the mediator. In this case, that staff support correlates with self-efficacy

iii) The mediator affects the outcome variable. In this case, self-efficacy effects emotional reactions to challenging behaviour

iv) If self-efficacy completely mediates the relationship, then there will be no effect on emotional reaction by staff support if self-efficacy is controlled for

These four conditions will be tested to see if self-efficacy mediates the relationship between staff support and emotional reactions to challenging behaviour.

2 METHOD

2.1 Participants

The participants were 66 residential direct care staff for people with learning disabilities, and 11 home managers. In total, 10 organisations and 40 residential homes were invited to take part. Out of these, 13 participated in the study. This represents a response rate of 33% of residential units. They were recruited from two Inner and one Outer London Borough, with diverse social and cultural make-ups. Participants were direct care staff in residential homes for people with learning disabilities where at least one resident displayed challenging behaviour.

Initially home managers were asked if any of their residents displayed challenging behaviour and asked to give a short description of behaviour they considered challenging. All homes recruited from had at least one resident who was either physically or verbally aggressive to staff or other residents, destructive of property, displayed behaviour in the community that placed them at risk or self-injured to a degree that presented a significant challenge to the service.

The participants were recruited from 13 residential homes for people with learning disabilities (see Table 1). Two of the homes were run by a private company, three by social services (in the same London Borough) and eight by voluntary organisations across all three boroughs.

Table 1 Residential units, organisations and boroughs recruited from

Care organisation (private, voluntary or social services)	Number of Homes recruited from	Total number of participants.	Borough
Private Company 1	2	12	A
Voluntary Sector Organisation 1	2	7	A
Voluntary Sector Organisation 2	3	9	B
Social Services	3	14	B
Voluntary Sector Organisation 3	3	24	C

There was a mean of 5.67 participants recruited from each residential unit (range 2-9, SD 2.09). There were 22 male and 43 female participants. One participant's sex is unknown. All participants were over 18 years of age. The distribution of their ages is shown in Table 2. It can be seen that their ages are relatively evenly distributed, although there are less participants in the youngest and oldest age ranges.

The 13 residential homes had a mean of 6.44 residents, of which 4.34 were described as displaying challenging behaviour. On average there were 7.69 permanent members of staff working at each house and 2.83 agency members of staff that were regularly being used.

The range of time that participants reported having worked in their current place of employment is shown in Table 3. Over 50% of participants had been in their current employment for less than 2 years.

Table 2 Distribution of participants' ages

Age Range	18-25	25-35	35-45	45-55	>55
Number of Participants*	7	15	22	16	5
Percentage of sample	10.4	23.1	33.8	24.6	7.7

*One participant did not record their age

Table 3 Length of current employment of participants

Length of Employment (years)	<1	1-2	2-5	>5
Number of Participants*	19	15	13	17
Percentage of sample	29.7	23.4	20.3	26.6

* Two participants did not record their length of service

2.2 Recruitment

Participants were recruited from the 3 London Health Districts. Clinical psychologists working in the learning disability community teams in these areas were contacted and asked to provide a list of all houses for people with learning disabilities in their borough.

When a list of residential homes in each area had been provided all houses were contacted and invited to take part. A letter was sent explaining the purpose of the study and offering to meet or speak with the house manager to discuss the study further (See Appendix B). This letter invited them to take part in the study and explained that the study would entail the manager filling out a short questionnaire and support staff filling out five questionnaires that would take roughly 35 minutes.

At a follow up phone-call the study was discussed further. At this point I also checked with manager at least one of the residents was considered to have challenging behaviour. If they agreed to take part in the study then I arranged to attend a staff meeting. They were asked to distribute information sheets to staff explaining the purpose of the study and what it would entail (See Appendix C). This was done at least 1 week prior to the staff meeting that I attended.

I visited 13 homes at team meetings. At this point it was checked that potential participants were over 18 years old, permanent staff in the house in which they were working and had experience of working with the resident(s) in the house in which they worked who showed behaviours that challenged. 67 participants completed the

questionnaires whilst I was present. 4 questionnaires were returned by post after being distributed at a team meeting.

95 participants agreed to take part in the study. At three houses, staff reported that they wanted to complete the questionnaires at times outside the staff meeting. They were given the questionnaires and asked to return them by post. 28 questionnaires were distributed in this manner, of which four were returned from two houses. One house did not return any of these questionnaires.

4 of those that were identified as possible participants at staff meetings declined to take part. From these 67 participants who completed the study at team meetings, 5 questionnaires were returned with one or more major sections incomplete and these questionnaires were excluded from the analysis.

Thus, overall 99 potential participants were identified. Of these, 4 declined to take part in the study (3.96%). 24 questionnaires were not returned by post (85.7% of those who agreed to complete the questionnaire and return it by post, 24.0% of the total of participants who agreed to take part). 5 questionnaires were excluded from the analysis due to missing data (5.26% of the sample).

Thus, the total number of participants taking part in the study was 66, giving an overall response rate of 66.6%. This compares to response rates of 60 – 79 % found in other studies (Stenfert-Kroese & Fleming, 1992; Rose, 1993).

2.3 Statistical Power

There is relatively little research directly examining the relationship between staff support and staff's reactions to challenging behaviour. Thus, it was not possible to complete a power analysis using a correlation between these factors. However, Hastings & Brown (2002) found correlations between behavioural attributions, self-efficacy and emotional reactions. The lowest of these was 0.3. In order to give the greatest possibility of detecting an effect, this conservative figure was used in the power calculation. Thus, in order to have 80% power to detect a correlation of .3 at $\alpha = 0.05$ a sample size of 85 was required.

2.4 Procedures

At each residential home I attended a team meeting and initially checked that everyone had had a chance to look at the information sheet. If they had not then I provided them with an information sheet at this time. I then briefly explained the purpose of the study again and checked that potential participants knew that it was voluntary and that all answers they gave would remain confidential. I also checked that members of staff were over 18, in permanent employment and that they worked with all the residents in the home.

I remained present whilst participants completed questionnaires and answered any questions they had. If participants wanted to complete the questionnaires by post I gave a postage-paid envelope to a member of staff to collect and return the questionnaires in.

2.5 Materials

Five questionnaires were completed by participants. They are described below:

The Challenging Behaviour Attributions scale (CHABA) (Hastings, 1997)

This is a 33-item measure designed to assess attributions made about the causes of challenging behaviours by carers (see Appendix D). It was originally designed for use with paid carers working with adults with learning disabilities. The scale gives scores on six different sub-scales representing different factors that might be responsible for challenging behaviour. They are Learned Positive Behaviour, Learned Negative Behaviour, Biomedical, Emotional, Stimulation and Physical Environment. The 'Learned Positive Behaviour' subscale refers to behaviour that is maintained by a positive reinforcement process, whilst the 'Learned Negative Behaviour' subscale refers to behaviours maintained by a negative reinforcement process. Each causal statement is rated on a fully anchored 5 point scale ranging from -2 = 'very unlikely' as a cause of challenging behaviours to +2 ='very likely' as a cause. The range of scores for each of the sub-scales is -6 - +6 (Learned Positive Behaviour), 6 - +6 (Learned Negative Behaviour), -12 - +12 (Biomedical), -14 - +14 (Emotional), -12 - +12 (Stimulation) and -16 - +16 (Physical Environment). This gives a total range of scores of -66 - +66. High scores indicate that the respondent considers that that this is a likely cause of challenging behaviour, low scores an unlikely cause.

Reliability of the CHABA has been assessed by the internal consistency method using Cronbach's alpha coefficient (Hastings, 1997; Tynan & Allen, 2002). Hastings

(1997) tested Cronbach's alpha values for the sub-scales on the CHABA. He found a moderate to good level of reliability for all of the CHABA sub-scales with none of them deviating significantly from the generally accepted criteria of 0.7 (Hammond, 1995).

The CHABA has been used to assess causal attributions about both specific behaviours, either those described in a vignette or using 'real life' examples that participants had been involved in (Hastings, 1997; Tynan & Allen, 2002; Grey, McClean & Barnes-Holmes, 2002), and possible attributions about non-specified challenging behaviour (Hastings & Brown, 2002a). In this study participants were asked to consider challenging behaviour generally rather than a specific incident. This was in order to capture a wide as range as possible of casual attributions about different behaviours.

There are some significant limitations of the scale. There is no data available assessing the external validity of the scale as there is no external objective validation criteria. Possible ways of assessing external validity would be to monitor the attributions of staff undergoing training. Additionally, there is also little data available to assess the stability of the CHABA i.e. within a test-retest paradigm. There is also no psychometric data available on the CHABA as a whole, including overall levels of internal consistency, test-retest reliability or social desirability response biases.

Emotional Reactions to Challenging Behaviours Scale (Mitchell & Hastings, 1998; See Appendix E).

This is a 15-item scale measuring the emotional reaction of carers to challenging behaviour. Using a four-point scale, staff are asked to rate the frequency with which they have experienced each of 15 emotions in response to challenging behaviour. Each emotion is rated on a fully anchored 4 point scale ranging from 0 = 'no, never' as an emotion experienced when working with people who show challenging behaviours, to 3 = 'yes, very frequently'. Thus, the range of total scores is from 0 – 45. High scores indicate that the negative emotion is experienced relatively frequently when working with people who display challenging behaviour, low scores that it is experienced relatively infrequently. Two sub-scales have been derived through factor analysis: fear/anxiety and depression/anger. Six items constitute the fear/anxiety sub-scale, and nine items constitute the anger/depression sub-scale. Both of these sub-scales show high internal consistency (Mitchell & Hastings, 1998; Hastings & Brown, 2002). Mitchell and Hastings used intra-class correlations to assess test-retest reliability and found it to be good (depression/anger: r = .74; fear/anxiety: r = .81). The correlation between these sub-scales (r=.47) showed that they did measure different dimensions of negative emotional reactions although there is a moderate degree of relationship between the two dimensions. The ratings also appear relatively unaffected by social desirability response biases (Mitchell & Hastings, 1998). However, there is little data available on the external validity of the Emotional Reactions to Challenging Behaviours Scale.

Difficult Behaviour Self-Efficacy Scale (Hastings & Brown, 2002; see Appendix F)

This is a 5-item scale measuring the perceived ability of the carer to manage difficult behaviour. These items focus on the carer's feeling of (1) confidence, (2) control, (3) satisfaction in managing challenging behaviour, (4) having a positive impact on the behaviour and (5) a rating of how difficult they find working with challenging behaviour. Each item is rated on a seven-point scale from 1-7, anchored at either end. Summing the ratings on the five questions derives a total score (range 5 – 35). It was found to have excellent internal reliability (Cronbach's alpha = 0.94; Hastings & Brown, 2002) . However, there is no data available on tets-retest reliability, social desirability response bias or external validity.

The Staff Support and Satisfaction Questionnaire (3SQ) (Harris & Rose, 2002; See Appendix G)

This is a 21-item scale measuring the organisational support on 5 factors – role clarity, coping resources, job satisfaction, risk procedures and supportive people. Participants are asked to respond on a five-point scale anchored at either end. The range of scores that can be obtained is 21-105. High scores are likely to reflect a higher perception of support and satisfaction in the work setting.

The total scale shows a high level of test-retest reliability. Harris & Rose (2002) assessed the internal reliability of the 3SQ in three stages, altering the 'supportive people' sub-scale between the first and second stages as some participants found

questions on it difficult to answer. They reported that the 3SQ had high internal reliability.

The 3SQ has been validated against several other measures (David, 1997). The 3SQ has to been shown to have a significant inverse relationship with the anxiety and depression scores on the 'Thoughts and Feelings Index' (TFI; Fletcher, 1989). David (1997) also showed significant inverse relationships between the 3SQ and the General Health Questionnaire-12. The GHQ-12 is a shortened version of the GHQ, a frequently used measure of psychological well being in occupational stress studies (Mullarkey et al., 1999).

Although the supportive people sub-scale has shown relatively poor psychometric properties it was retained to maintain the face validity of the questionnaire, following observations by 3SQ users that it is necessary to tap an aspect of support that it is considered important (Harris & Rose, 2002).

The Challenging Behaviour Support Questionnaire (CBSQ)

This is a 12 item self-designed questionnaire measuring the amount and perceived helpfulness of support that staff receive from their employing organisation. As there is no established measure of organisational support which a) includes such more "objective"/ quantitative aspects of support as quantity and frequency, and b) focuses specifically on support in relation to challenging behaviour, it was deemed necessary to design a measure for this study to look at these aspects of support alongside the aspects assessed by the 3SQ. The CBSQ asks about the frequency of team meetings

and supervision, and how often they include discussion about challenging behaviour. It also asks about previous training attended, whether written guidelines to manage challenging behaviour are in place and whether they are able to contact a senior member of staff if they are in a difficult situation. For all facets of staff support respondents are asked to rate their helpfulness in the management of challenging behaviour, on a scale of one to five, anchored at either end, with 1 = 'not helpful at all' and 5 = 'very helpful'. The range of scores that can be obtained is 12-51. The higher the score the more helpful support the participant receives in relation to challenging behaviour.

3 items on the CBSQ were scored in reverse. These were the frequency of team meetings, frequency of supervision and presence of guidelines. For example, if a participant circled '1=weekly' when asked about frequency of team meetings, this would contribute four points to the overall score.

An altered form of the CBSQ was given to managers. Five items collecting demographic information about the home were added. They were range of length of employment of staff, number of staff, number of agency workers, number of residents and number of residents who showed challenging behaviour. These items were not included in the scoring of the measure.

The manager version of the CBSQ was the same as the staff version except that it was asking the manager to rate their impression as to how helpful staff working at the home found the various aspects of managerial and organisational support. Thus, it

does not assess the support the manager receives, but the support that they believe direct care staff to be receiving.

2.6 Data Analysis

Data analysis was carried out using SPSS 11.0

3 RESULTS

3.1 Overview

This study was designed to address six research questions. These were:

1) Does organisational support have an effect on staff's attributions about the causes of challenging behaviour, their emotional reactions to challenging behaviour and their self-efficacy in dealing with challenging behaviour?
2) How frequently do staff receive support in managing challenging behaviour, and do they find this support helpful?
3) Do managers and support staff have similar view on the frequency and helpfulness of support in managing challenging behaviour?
4) Is support specifically focussed on challenging behaviour related to the staff's overall perception of the organisation as supportive or unsupportive?
5) Does staff support increase self-efficacy in managing challenging behaviour?
6) Does self-efficacy mediate the relationship between negative emotional reactions to challenging behaviour and staff support?

The results section is structured accordingly. However, the process of analysis meant that the research questions could not be addressed in the above order. The format of the results section is outlined below:

1) Description of missing data and its management.

2) The data obtained from the CBSQ and the managers' version of the CBSQ is reported. This information addressed research question 2, 'How frequently do staff receive support in managing challenging behaviour, and do they find this support helpful?' and research question 3, 'Do managers and support staff have similar views on the frequency and helpfulness of support in managing challenging behaviour?' The psychometric properties of these scales are also reported.

3) The psychometric properties of the CHABA, 3SQ, Emotional Reaction to Challenging Behaviour Scale and the Self-Efficacy in Managing Difficult Behaviour Scale are discussed.

4) An initial correlational analysis was carried out between all measures and the implications for further analyses are discussed. The degree of correlation identified between the 3SQ and the CBSQ addresses research question 4, 'Is support aimed at the understanding and management of challenging behaviour related to the individual staff member's overall perception of the organisation as supportive?'

5) A multiple regression is then carried out to address research question 1, 'Does organisational support have an affect on staff's attributions about the causes of challenging behaviour, their emotional reactions to challenging behaviour and their self-efficacy in dealing with challenging behaviour?' Based on the initial correlational analysis, a further regression is then carried out without including information about attributions.

6) The hypothesis that self-efficacy mediates the relationship between staff support and emotional reactions is then investigated (research question 6). Initially, a regression was carried out to determine whether a relationship existed between staff support and emotional reactions to challenging behaviour. Further multiple regressions were carried out, with the anxiety/fear response and depression/anger response as the dependent variables. Staff support and self-efficacy formed the independent variables.
7) In order to address research question 5, 'Does staff support increase self-efficacy in managing challenging behaviour?' a further regression was carried out, in which self-efficacy was the dependent variable and the measures of staff support were the independent variables.

All regressions were repeated with age, sex and length of service added as independent variables. This was done to detect any effects that they may have on the dependent variables, and possible influences on predictors.

3.2 Analysis of data for accuracy of entry and missing data

Prior to analysis, all variables were analysed for accuracy of data entry and missing values. A total of seven support staff participants had data missing, and two further staff had omitted demographic information. The details of the missing data are shown below:

Participant A: Self efficacy and emotional reaction

Participant B: Emotional reaction and CHABA

Participant C: Emotional reaction, CHABA and CBSQ

Participant D: Age, emotional reactions and CHABA

Participant E: Attributions, CBSQ and 3SQ

Participant F: Staff support

Participant G: Emotional Reaction

Participant H: Age, sex and length of service

Participant I: Length of service

Two managers did not return the managers' questionnaire. This was as a result of them not returning their questionnaire by post that they were unable to complete at the time of the team meeting. However, data was still collected concerning number of residents and number of residents displaying challenging behaviour by follow up telephone call.

The data from participants A-E was excluded. The CBSQ score for participant F was added as the mean CBSQ score from that house. The mean emotional reaction to

challenging behaviour score was used to give a score for participant G. Both participants H and I were included in the analysis

This meant that data from 66 support staff and 11 managers was used in the analysis.

3.3 Data obtained from Challenging Behaviour Support Questionnaire (CBSQ)

There was no significant difference in overall scores according to age, sex or length of service (See Appendix H, section 1). However, scores differed significantly across residential units ($F(12,65) = 2.96$ x, $p<0.01$). The scores from the CBSQ were examined for outliers. No outliers were found (criteria z score>3.29; Tabachnick & Fidell, 1996). The data was found to be normally distributed, by both observation of a histogram and formal measurements of skewness and kurtosis.

The data from the CBSQ was examined to obtain a picture of the amount of support that is typically offered to staff specifically around challenging behaviour. It provided data pertaining to the frequency and helpfulness of team meetings and supervision (see Figure 2). It can be seen that most staff reported monthly, fortnightly or weekly team meetings (Figure 2). The majority of staff reported receiving individual supervision once a month. A significant proportion (n=14) of participants reported receiving individual supervision less than monthly or never and some (n=6) reported having team meetings less than once a month or never.

Figure 2 Frequencies of Team Meetings and Individual Supervision Reported by Support Staff

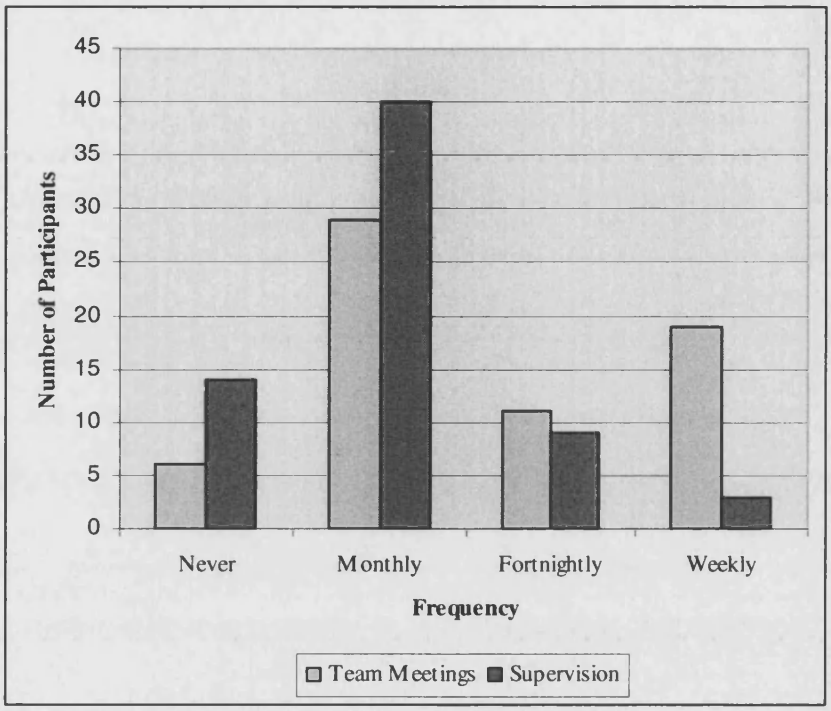


Figure 3 illustrates the frequency of carers who report discussing challenging behaviour in team meetings and supervision. It can be seen that most participants reported that they either discussed challenging behaviour often or in every team meeting. Participants were more likely to report that they 'rarely' or 'never' discussed the challenging behaviour of residents in individual supervision, but, in common with team meetings, the most common responses were 'often' and 'everytime'.

Figure 3 Frequencies of Discussions about Challenging Behaviour (in Team Meetings and Supervision)

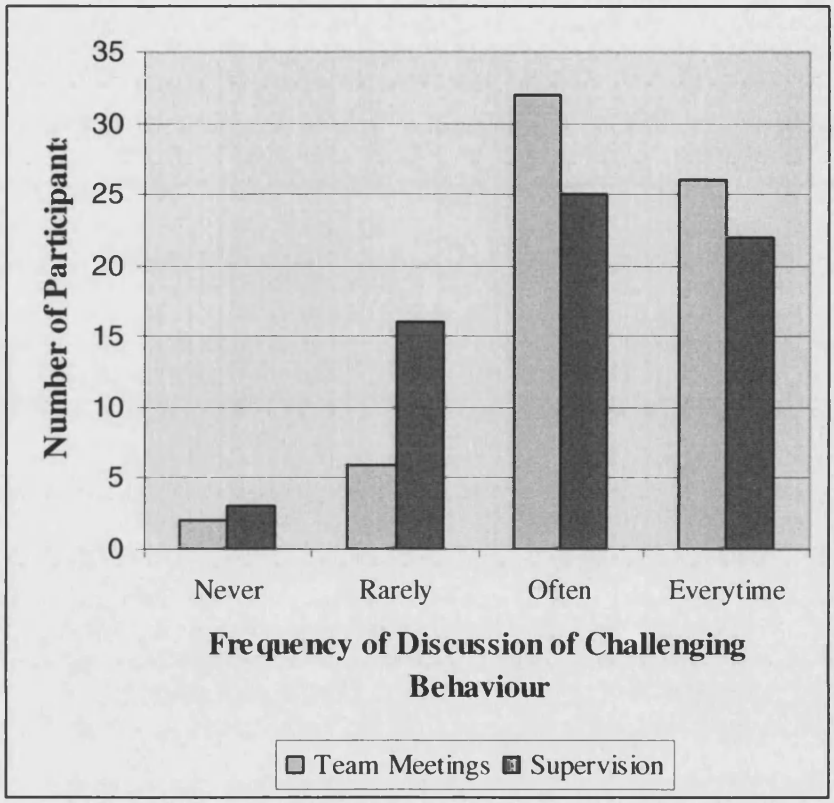
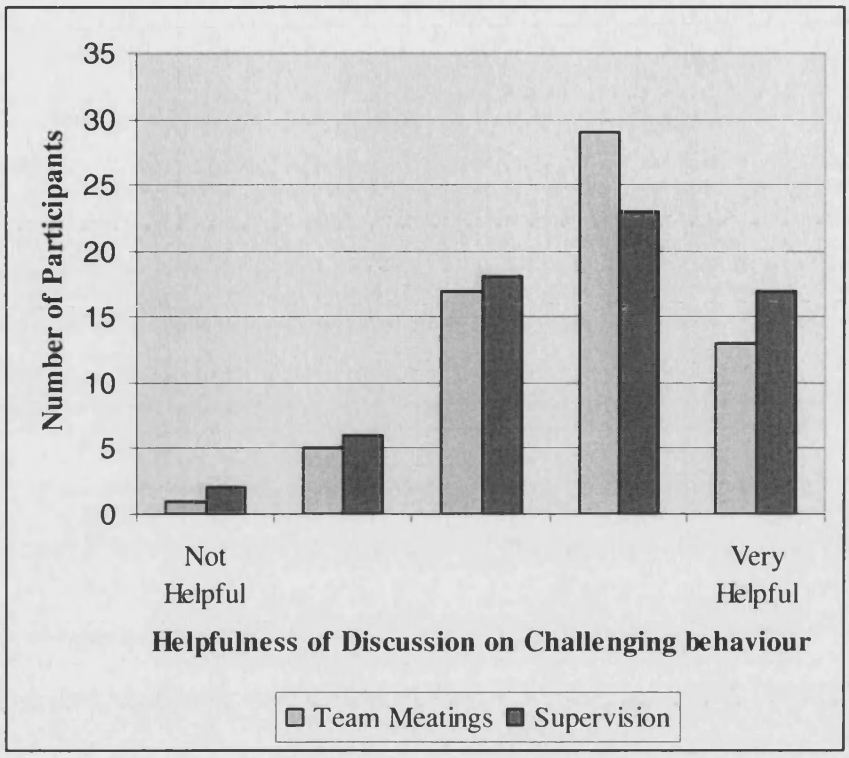


Figure 4 illustrates the helpfulness of these discussions. It can be seen that the helpfulness of discussions seems similar between team meetings and supervision. In both cases the modal answer is 4, with 3 and 5 also relatively frequent answers. Relatively few participants report that these discussions are not helpful (i.e. gave answers of 1 or 2).

Figure 4 Helpfulness of Discussion of Challenging Behaviour in Team Meetings and Supervision



The means and standard deviations of frequency and helpfulness of discussions about challenging behaviour are shown in Table 4. The mean frequencies and mean helpfulness of discussions about challenging behaviour appear similar in team meetings and supervision. These results appear to indicate that participants generally report that they often discuss challenging behaviour in team meetings and supervision and that they find such discussions helpful.

Table 4 Means and standard deviations of frequency and usefulness of discussion in team meetings and individual supervision of challenging behaviour.

	Mean frequency of discussion of challenging behaviour (SD)*	Mean helpfulness of Discussion (SD)**
Team Meetings	3.42 (0.62)	3.76 (0.99)
Individual Supervision	3.03 (0.84)	3.79 (1.09)

* This was fully anchored on a four point scale – 1 = 'never', 2 = 'rarely', 3 = 'often', 4 = 'everytime')

** a five point scale anchored at either end – 1 = 'not helpful at all', 5 = 'very helpful'

Participants were also asked about the amount and usefulness of training that they had received related to challenging behaviour. The mean amount of training reported was 2.50 (SD 0.74). This was fully anchored on a four-point scale (1 = none, 2 = 1 or 2 short courses, 3 = several courses, 4 = qualification). The mean helpfulness of training was 3.67 (SD 1.31). This was rated a five-point scale anchored at either end (1=not helpful at all, 5=very helpful). These results suggest that the majority of support staff had received between '1 or 2 short courses' and 'several courses' addressing challenging behaviour (mean 3.67, SD 1.31) and that they rate such courses of varying helpfulness. The helpfulness mean is comparable to the helpfulness means reported for discussion of challenging behaviour in team meetings and supervision (see Table 4), but the standard deviation is higher, suggesting a more varied experience.

A Spearman correlation was carried out between all the items in the CBSQ. Although a full item and factor analysis was beyond the scale of this study this was a preliminary analysis to reveal any items that appeared unrelated to others. The majority of items were significantly correlated ($p<0.05$) to at least four other items. There were two items that did not show such a number of correlations. The item investigating the presence of written guidelines only significantly correlated with the helpfulness of such guidelines and the helpfulness of training. The item investigating the frequency of team meetings did not significantly correlate with any of the other items.

The value of Cronbach's alpha was calculated to determine the internal consistency of the staff support scale. It was found to have a value of .81, which indicates that the CBSQ has good internal consistency.

3.4 Managers version of the CBSQ

Only 11 managers completed the CBSQ and so the full details are not reported . The mean overall score was 37.40 (out of a possible total of 51) and the standard deviation 6.62. The overall scores reported by the managers did not differ from those reported by the support staff. The scale had a Cronbach's Alpha of .58.

3.5 Statistical Properties of Other Measures

This section reports on the properties found in this study of the standardised measures and outlines the implications of these properties for subsequent analysis.

Challenging Behaviour Attribution Scale (CHABA)

The scores on the subscales of the CHABA were first checked for outliers and normal distribution. No outliers were found according to Tabachnick & Fidell's (1996) criteria. None of the sub-scales of the CHABA were normally distributed. No differences were found in overall CHABA scores according to sex, length of service, or age (See Appendix H, part 2). The scores did not differ significantly between residential units. However, the 'physical environment' sub-scale was found to be significantly affected by age (Chi Square (4) 11.01, $p<0.05$)

The mean, standard deviation and mean score per item obtained for each of the subscales are shown in Table 5. The mean score per item was included as the sub-scales have a different number of items. The subscales are learned positive behavioural (LP), learned negative behavioural (LP), biological/medical (BM), stimulation (ST), physical environment (PE) and emotional (EM) attributions made about challenging behaviour. It can be seen that all of the means are positive, indicating that all the sub-scales were considered likely causes of challenging behaviour. It can be seen that, per item, the physical environment sub-scale was rated the least likely cause of challenging behaviour whilst the learned positive subscale was most likely.

Table 5 Mean, range and standard deviation of response for the CHABA subscales

Sub-scale	Mean (SD)	Range	Mean score per item
Biomedical	2.79 (4.27)	-9-11	0.47
Physical environment	2.15 (6.14)	-15 – 16	0.27
Learned behaviour	5.12 (4.36)	-10 – 12	0.85
learned positive	3.62 (2.54)	-5 – 6	1.21
learned negative	1.65 (2.49)	-5 – 6	0.66
Stimulation	1.89 (4.81)	-11 – 12	0.32
Emotional	7.01 (5.13)	-10 – 14	1.00

All of the distributions of the sub-scales of the CHABA were severely non-normal. Therefore, non-parametric statistics were used in all analyses involving CHABA scores. The correlations between the subscales of the CHABA are shown in Table 6. It can be seen that they range from .36 to .69. All sub-scales are significantly correlated with all the other sub-scales at $p<0.01$ level. There does not appear to be any systematic difference in correlations between sub-scales.

Table 6 Spearman correlations of CHABA subscales

	BM	EM	LN	LP	PE	ST
BM		.50**	.39**	.42**	.62**	.60**
EM			.45**	.69**	.57**	.42**
LN				.41**	.59**	.41**
LP					.45**	.36**
PE						.60**

** p<.01 level (two-tailed test)

The internal consistency for the overall CHABA, behavioural attributions and individual sub-scales are shown in Table 7. They are measured using Cronbach's Alpha. All of the values are above .64 (indicating acceptable internal consistency) apart from the learned negative sub-scale (0.45).

Table 7 Cronbach's Alpha for overall CHABA and individual sub-scales

Sub-scale	Cronbach's Alpha
Learned Behaviour	0.66
Learned Positive	0.67
Learned Negative	0.49
Physical Environment	0.62
Biomedical	0.66
Stimulation	0.72
Emotional	0.78
Overall	0.90

Staff Support and Satisfaction Questionnaire (3SQ)

In the totalled 3SQ scores no outliers were found. However, the data was significantly negatively skewed (z score = 4.15, $p < 0.01$). There was no difference in scores according to age, sex or length of service (See Appendix H, part 3).

The mean, range and standard deviations of the subscales and total score for the 3SQ are shown in Table 8. It can be seen that all sub-scales of the 3SQ show comparable means and standard deviations, and the means range only between 15.71 and 18.18. Thus, it appears that participants had generally positive perceptions of the organisational support they receive and that tended to be satisfied with their jobs. The reason for the negative skew was that a disproportionate number of participants obtained high scores compared to the number expected to do so if the data was normally distributed.

Table 8 Means, standard deviations and ranges of scores for 3SQ and its sub-scales

Scale	Mean (SD)	Range
Role Clarity	17.38 (2.78)	6-20
Coping Resources	16.85 (3.80)	6-20
Risk Procedures	16.00 (3.93)	4-20
Supportive People	15.71 (3.49)	4-20
Job Satisfaction	18.18 (3.53)	5-25
Total Score	84.15 (13.98)	41-102

As the 3SQ sub-scores were not normally distributed, non-parametric analyses were used in preliminary correlations.The correlations between subscales of 3SQ are shown in Table 9. It can be seen that all the subscales significantly correlate with each other at the $p<0.05$ level. The correlations range from 0.37 to 0.68. The job satisfaction sub-scale (range 0.37 – 0.48) appears to show lower levels of correlation to the other sub-scales (overall range of correlations not including the job satisfaction subscale 0.40 – 0.68).

Table 9 Correlation of 3SQ subscales

	RC	CR	RP	SP	JS
RC		.54**	.49**	.40**	.38**
CR			.68**	.57**	.42**
RP				.59**	.37**
SP					.48**

** $p<0.05$, (two-tailed test)

Emotional Reaction to Challenging Behaviour Scale

No outliers were found on this scale. However the scale was not normally distributed with both subscales showing a significant positive skew (anxiety/fear z score = 2.66, $p<0.01$; depression/anger z score = 2.00, $p<0.01$). No differences were found according to sex, age or length of service (See appendix H, section 4).

This scale has two sub-scales, depression/anger and anxiety/fear. There were six items in the anxiety/fear scale and nine on the depression/anger scale. The two subscales have a Spearman correlation coefficient of 0.67 ($p<0.01$, two-tailed). This was considered sufficient to sum the scores given by participants to give an overall score representing negative emotions experienced by participants in response to challenging behaviour. However, the two sub-scales were also used separately in some analyses.

The mean scores, standard deviations and range of scores are shown in Table 10. No participants gave the highest possible scores, but some gave scores of 0, indicating that they did not experience any of the negative emotions listed when confronted with challenging behaviour. This pattern resulted in the positive skew in the distribution of the data. It can be seen that on both the fear/anxiety sub-scale and the depression/anger sub-scale participants were scoring on average less than 1 per item, indicating responses between 'no, never' and 'yes, but infrequently' as an emotional response to challenging behaviour.

Table 10 Mean and Range of Scores on the Emotional Reaction to Challenging Behaviour Scale.

	Mean Score (SD)	Range	Mean Score per item
Fear/Anxiety	3.88 (2.65)	0-13	0.65
Depression/Anger	6.97 (4.78)	0-21	0.77
Total	10.98 (6.97)	0-28	0.73

For future analyses the scores for the emotional reaction to challenging behaviour scale were multiplied by -1 in order that higher scores would represent **low** levels of negative emotions. This was done because the scores from this measure would be summed with other scores in some analyses. Thus, high scores from this scale represent fewer negative emotional reactions to challenging behaviour.

Difficult Behaviour Self-Efficacy Scale

The difficult behaviour self-efficacy scale yielded total scores in the range of 12-35. The mean was 25.98 and the SD was 4.91. No outliers could be identified criteria and the results showed a normal distribution. No differences were found according to sex, age or length of service, or between residential units (See Appendix H, section 5).

3.6 Preliminary Analyses

Correlation Between all Measures

A preliminary correlation was carried out between all measures in order to ascertain possible relationships between variables. Table 11 shows all significant correlations. It can be seen that the CBSQ, 3SQ and self-efficacy measures were all significantly intercorrelated. The self-efficacy measure correlated with both sub-scales of the emotional reaction to challenging behaviour measure and with the total overall score. The strongest correlations were between the CBSQ and the 3SQ and the self-efficacy and fear/anxiety emotional reaction to challenging behaviour, and between the 2 sub-scales of the emotional reaction to challenging behaviour measure. Non-significant results are shown in Appendix H, section 6.

Table 11 Significant Spearman's Correlations between Measures

Measures	Correlation
CBSQ – 3SQ	.44**
CBSQ – Self-Efficacy	.29*
3SQ – Self-Efficacy	.25*
Self-Efficacy – Fear/Anx	.36**
Fear/Anx – Anger/Dep	.67**
Self-Efficacy – Total Emotion	.30*

*$p<0.05$

**$p<0.01$

CHABA

In a preliminary analysis, carried out in order to understand possible links between variables, CHABA sub-scale scores, CHABA behavioural belief scores and CHABA total scores were not found to approach significant correlations with any other measures using a non-parametric test.

Staff Support

Research question 4, 'Is support aimed at the understanding and management of challenging behaviour related to the individual's overall perception of the organisation as supportive?' was addressed by the correlation carried out between the CBSQ and the 3SQ. The CBSQ and the 3SQ were significantly correlated (Spearman rho=0.44, $p<0.01$). This was not a sufficiently strong relationship for the two measures of staff support to be summed to give an overall measure of staff support, and indicated that they were measuring distinct aspects of staff support. Thus, the two measures are used separately in the following analyses.

3.7 Overall Effect of Staff Support

In order to answer research question 1, whether increased staff support would result in increased attributions about possible causes of challenging behaviour, greater self-efficacy in managing the behaviour and less subsequent negative emotion, a linear regression was carried out. Initially, all results were standardised. The two staff support measures were included in the regression as independent variables (this has

the same effect as summing them, but allows differentiation of their effects). The dependent variable was the sum of the CHABA, self-efficacy, and emotional reactions to challenging behaviour scores. As previously noted, the emotional reaction to challenging behaviour score had been multiplied by -1 in order that high scores would indicate less frequent negative emotional reactions.

All preliminary analyses were carried out using non-parametric tests due to the non-normal distribution of the data. In the following analyses, regression were completed and then assessment of of assumptions of normality, linearity and homoscedascity were carried out. Thus, in this case, although the resultant summed score was not normally distributed the analyses were carried out and then an examination of the residual scatterplots was carried out to test assumptions of normality, linearity and homoscedascity between predicted DV scores and errors of prediction. They were found to be met. To determine multivariate outliers the list of residuals was checked. A criteria of $p=0.001$ is appropriate for $N<1000$, defining outlying cases as those with a standardised residuals in excess of $\pm$ 3.3 (Tabachnick & Fidell, 1996). No multivariate outliers were identified.

The regression model for the summed scores of self-efficacy, emotional reactions and attributions was significant ($R^2 = .11$, $F(2,65) = 3.82$, $p < 0.05$). 11% of the variance in the summed score is predicted by the level of staff support. No significant independent predictors were found (See Table 12). Table 12 shows that the CBSQ has a β-value of .247, which approaches significance, but the 3SQ does not approach significance as an independent predictor.

Table 12 Result of the regression model for summed scores of self-efficacy, attributions and emotional reactions.

Predictor	β	*P*- value
CBSQ	.247	.08
3SQ	.123	.38

Age, sex and length of service were added to the regression. The regression model was again significant (R^2 = .178, F (5,63) = 3.82, $p < 0.05$). The model accounts for 17% of the variance, 7% more than when age, sex and length of service were not included. Length of service was the only significant independent predictor of the summed attribution, emotion and self-efficacy scores (see Table 13). It can be seen that the 3SQ accounts for more of the variance than in the initial regression in which age, sex and service were not included (β=.285 compared to β=.123) and that the proportion of the variance accounted for by the CBSQ has decreased (β=.184 compared to β=.247). Age and sex did not approach significance as independent predictors of the summed variable.

Table 13 Result of the regression model for summed scores, with age, sex and length of service added as predictor variables

Predictor	β	*P*- value
CBSQ	.184	.20
3SQ	.285	.08
Age	-.136	.35
Sex	.480	.70
Length of Service	.297	.04*

* $p<0.05$

3.8 Closer examination of the relationships between different variables

Although there was a significant relationship between the summed self-efficacy, emotional reactions and attributions scores to staff support, given the lack of relationship between CHABA and other variables found in the preliminary analyses, the CHABA scores may mask significant relationships in the above, and future, analyses. Thus the two analyses described above were repeated without the CHABA scores included. A residual scatter-plot was checked for assumptions of normality, linearity and homoscedasticity between predicted DV scores and errors of prediction. They were found to be met. No multivariate outliers were identified.

The regression model with summed scores of self-efficacy and emotional reactions as the dependent variable, and staff support measures as the independent variables, gave a significant overall effect (R^2 = .10, F (2,65) = 3.34, P < 0.05). 10% of the summed score for emotional reaction to challenging behaviour and self-efficacy in dealing with difficult behaviour was associated with generally supportive environments and specific support around challenging behaviour. This compares to the 11% of the variance accounted for when the CHABA scores were included. Thus, it can be seen that inclusion or exclusion of CHABA scores seemed to have little effect on the overall regression model. Table 14 shows that neither specific staff support around challenging behaviour nor a more general supportive environment were independent significant predictors.

Table 14 Result of the regression model for summed scores of self-efficacy and emotional reaction

Predictor	β	P-value
Staff Support	.157	.27
3SQ	.197	.18

The analysis was repeated with the addition of age, sex and length of service added as predictor variables (see Table 15). This model was significant (R^2 = .18, F (2,63) = 2.38, P < 0.05) and the independent variables accounted for 18% of variance in the dependent variable, compared to 10% when age, sex and length of service were not taken into account. The 3SQ score was now a significant independent predictor of the summed score of self-efficacy and emotional reaction in the initial regression (β=.379, p<0.05; see Table 15). Before these variables were added it had not been an independent predictor (β=.197, see Table 14).

Table 15 Result of the regression model for summed score with age, sex and length of service added as predictor variables

Predictor	β	*P*- value
CBSQ	.096	.50
3SQ	.379	.02*
Age	-.216	.14
Sex	.034	.79
Length of Service	.275	.06

* $p<0.05$

At this point it was decided to omit the CHABA from further analyses. It did not appear to be adding to the predictive power of the models and it was likely that it may mask possible relationships between variables and may thus compromise future analyses.

The next analyses were designed to test research question 6: namely whether self-efficacy mediates the relationship between negative emotional reactions to challenging behaviour and staff support. A necessary condition of this mediation would be that emotional reactions to challenging behaviour and staff support are related.

Although the two sub-scales measuring emotional reactions to challenging behaviour had been summed to give one score in previous analyses, in these analyses they were separated. This was based on the preliminary analysis that suggested that anxiety/fear emotional reactions may have a stronger relationship to self-efficacy (see Table 11).

Thus two regressions were calculated. The two measures of staff support formed the independent variable in both regressions. Fear/anxiety and anger/depression subscales were used as the dependent variables in the regressions. No effect of the regression model was found in either case (fear/anxiety R^2 = .03, F (3,63) = 0.971, P=.384; depression/anger R^2 = .03, F (3,63) = 0.97, P = 0.38).

The lack of relationship between staff support and emotional reaction to challenging behaviour meant that self-efficacy could not mediate the relationship between them, as this is a necessary condition for mediation. However, further analyses were carried out to understand the relationships between self-efficacy, staff support and emotional reactions to challenging behaviour.

Firstly the relationship between self-efficacy, staff support and emotional reaction to challenging behaviour was tested. In this, the emotional reaction formed the dependent variable and self-efficacy and staff support formed the independent variables. Only the anxiety/fear regression model was significant (R^2 = .20, F (3,63) = 5.05, P < 0.01). The depression/anger model was not significant (R^2 = .08, F (3,63) = 1.92, P =0.14). This suggests that self-efficacy and staff support predict anxiety/fear reactions, but not depression/anger reactions, to challenging behaviour.

20% of participants' anxiety/fear response to challenging behaviour could be explained by their perceived self-efficacy and the two measures of staff support. Only self-efficacy was an independent predictor of anxiety/fear reactions to

challenging behaviour (see Table 16). Neither of the variables measuring staff support approached significance as independent predictors.

Table 16 Result of the regression model for fear/anxiety responses

Predictor	β	*P*-value
CBSQ	.020	.45
3SQ	.026	.80
Self-Efficacy	.429	<0.01*

*p<0.01

This regression was then repeated with additional independent variables of age, length of service and sex. Similar results were obtained. None of the variables approached significance as independent predictors except for self-efficacy, which was a significant independent predictor ($p<0.05$; See Appendix H, part 7)

.

Research question 5 asked whether staff support increases self-efficacy in managing challenging behaviour. As has been shown, 3SQ and CBSQ scores were significantly correlated. In order to determine the relative effect of support aimed specifically at understanding and managing challenging behaviour, compared with perceptions about the general supportive nature of the organisation a further regression was calculated. In this, self-efficacy was used as the dependent variable, and the two measures of staff support as the independent variables. The overall regression was significant ($R^2 = .10$, $F(2,65) = 3.35$, $P < 0.05$). Neither the CBSQ nor the 3SQ were independent predictors of self-efficacy (see Table 17). Thus, it appeared to show that there was a significant relationship between staff support and self-efficacy, and that neither facet of staff support was significantly more predictive of self-efficacy.

Table 17 Result of the self-efficacy regression model

Predictor	B	*P*-value
CBSQ	.191	.18
3SQ	.163	.25

Age, sex and length of service were then added to this regression. This produced a significant regression model (R^2 = .19, F (5,63) = 2.68, P < 0.05; see table 18) and accounted for 9% more of the variance than when age, sex and length of service were not taken into account. Both length of service and the 3SQ were significant independent predictors of self-efficacy (Table 18). No other independent predictors were found.

Table 18 Result of the self-efficacy regression model with age, sex and service included as potential independent variables

Predictor	β	*P*-value
CBSQ	.125	.38
3SQ	.337	.04*
Age	-.190	.19
Sex	.01	.97
Service	.341	.02*

*p<0.05

4 DISCUSSION

4.1 Overview

This was a cross-sectional study investigating the experiences of care staff working with people with challenging behaviour and learning disabilities. An initial aim was to survey the amount of support staff receive in relation to management of challenging behaviour, and assess whether they find such support helpful. This was assessed using the CBSQ. More subjective perceptions of general/overall staff support were obtained using the 3SQ.

The central hypothesis was that these facets of staff support would have an effect on carers' attributions about possible causes of, emotional reactions to and self-efficacy in dealing with, challenging behaviour. There were several more specific research questions. In this discussion, each research question is outlined and the main findings in relation to this question are summarized and discussed in the light of previous research. Limitations of the study are then outlined, before implications for clinical practice and future research are discussed.

4.2 Research Questions

1) Does organisational support have an effect on staff's attributions about the cause of challenging behaviour, their emotional reactions to challenging behaviour and their self-efficacy in dealing with challenging behaviour?

The three measures of carer reactions to challenging behaviour were standardised and summed. This formed the dependent variable. A multiple regression was then carried out using the two measures of staff support as independent variables. This demonstrated that there was a significant relationship between staff support and the three summed measures of carer reactions to challenging behaviour. Staff support accounted for 11% of the variance. These results suggest that staff support does have an effect on support staffs' attributions, emotional reactions and self-efficacy.

In preliminary analyses it was found that overall scores on the CHABA and individual scores on its sub-scales were not significantly correlated with the scores from any other measure. The analysis was then re-run without including the scores from the CHABA as part of the dependent variable. The independent variables were found to predict 10% of the variance of the dependent variable.

Thus, the results support the hypothesis that there is a relationship between staff support and perceived self-efficacy in managing challenging behaviour and emotional reactions to behaviour perceived as challenging. However, attributions about challenging behaviour were not significantly correlated to any of the other measures and did not appear to be related to either measure of staff support. This

indicates that, as one would expect, general organisational support and specific regular discussions about challenging behaviour in team meetings and supervision are related to staff confidence in managing challenging behaviour negative emotional reactions to challenging behaviour. However, somewhat surprisingly they do not seem to be related to staff's understanding of possible causes of challenging behaviour.

The lack of relationship between attributions and any of the other variables contrasts with Hastings and Brown (2002), who found that behavioural attributions (as measured by the CHABA) were related to anger/depression emotional reactions. Further research, although not using the CHABA, suggests that attributions have an effect on emotional reaction and that self-efficacy and training are likely to be related to the attributions that carers make (Dagnan et al., 1998; Stanley & Standen, 2000; Tynan & Allen 2002).

These results should be viewed with some caution, as past research suggests that it is unlikely that the null hypothesis is true and that attributions are unrelated to the other constructs. Below I focus on possible reasons for the apparent lack of a link between attributions and other variables found in this study. Firstly, the central hypothesis that staff support can be expected to increase overall scores on the CHABA may not be valid. Secondly, the CHABA shows significantly different psychometric properties in this study compared to previous research and this may have affected the results. This may be due to differing methodologies. Thirdly, the CHABA does not explicitly capture important interpersonal attributions, but interpersonal attributions may be confounded with items in the scale. These possible explanations are discussed below.

Validity of the Central Hypothesis

The central hypothesis of this study was that an increase in staff support around challenging behaviour would result in an increase in knowledge about the possible causes of challenging behaviour. However, there may be difficulties in assuming that staff support and training increase knowledge about different possible causes of challenging behaviour. Hastings (1997) hypothesised that staff may find learned negative reinforcement processes intuitively more difficult to understand. He argued that support and training may therefore be particularly relevant in developing staff's knowledge of these negative reinforcement principles. In relation to this it is possible that attributions caused by positive reinforcement may decrease as staff develop other ways of understanding challenging behaviour (Grey et al., 2002). Therefore, increased support and training may actually serve to decrease the likelihood of some attributions being made.

Staff are likely to be influenced by the environment that they work in when giving their responses to the CHABA. For example, if they work in a relatively quiet, spacious residential unit they may be unlikely to report that noise, crowding or a lack of space are likely causes of challenging behaviour. Thus, the house they work in and the residents that they work with may significantly affect their responses. This may limit their consideration of other causes of challenging behaviour that are not relevant to their current work, and further complicate the relationship between staff support and attributions made about challenging behaviour.

Related to this, different houses are likely to adapt the support they offer around the challenging behaviour they encounter. For example, it is possible that particular support may cause staff to alter causal attributions around specific service-users (e.g. understanding a behaviour as self-stimulatory rather having an emotional cause). Thus, even if staff are receiving regular support considering the possible causes of challenging behaviour this may not be reflected in a rise in overall scores on the CHABA, but rather as a shift towards causal attributions that are more relevant to their service users. Thus, the central premise that staff support would increase the range of causal attributions made about challenging behaviour may be invalid.

The lack of relationship between overall CHABA scores and self-efficacy scores suggests that considering a wide range of factors as possible causes of challenging behaviour does not necessarily mean that the individual will feel more efficacious. This decreases the validity of using the CHABA without reference to specific situations, and again lends support to the argument that training and support should focus on specific service-users or behaviours, rather than being provided in the form of general challenging behaviour training (Clements, 1993).

Psychometric Properties of the CHABA

There are significant differences in the overall scores obtained in this study compared to previous research. Tynan & Allen (2002) reported mean sub-scale scores in the range 0-0.83 and Hastings (1997) in the range -0.09-0.84. This compares to mean sub-scale scores of 1.65-7.01 in this study. This may be due to different methodologies. In this study participants were asked to rate the general

likelihood of the items being causes for challenging behaviour, whilst in the Tynan and Allen (2002) and Hastings (1997) studies they were asked to rate them as likely causes of a specific behaviour described in a vignette. Thus, in this study participants may have been much more ready to rate various causes of challenging behaviour as likely as they were not limited to thinking about one situation or individual at a specific time. For example, they may have been considering both mild and severely learning disabled residents with both aggressive and stereotypic behaviours. This would be likely to give rise to many more causal attributions and emotions (Tynan & Allan, 2002; Hastings, Remington & Hopper, 1995). This also may have resulted in links between specific emotions and attributions being hidden.

However, a link between behavioural causal beliefs about challenging behaviour and negative emotions has been found even when no vignette was used (Hastings & Brown, 2002a). Hastings and Brown do not report CHABA sub-scale and overall scores making detailed comparison of CHABA scores impossible. Hastings and Brown's participants were staff working in educational environments with children with learning disabilities, as opposed to staff working with adults, and this may have influenced the results.

The internal consistency of the CHABA in this study was good. Cronbach's Alpha values of the individual sub-scales are comparable with the scores found by Hastings (1997) and Hastings & Brown (2002). The overall Cronbach's alpha of .90 shows that the summed CHABA score had excellent internal consistency and suggests that participants were responding consistently across the different sub-scales. However,

there appear to be differences in the correlations between the sub-scales in this study compared to previous research.

There were significant correlations between all the sub-scales of the CHABA, varying from 0.3 to 0.7. It did not appear that any one of the sub-scales was systematically less correlated with the other sub-scales. This contrasts with previous research. Hastings (1997) found that the stimulation sub-scale did not have any strong associations with any of the other sub-scales, whilst although Tynan & Allen (2002) found some intercorrelation between sub-scales, including the stimulation sub-scale, many of the sub-scales were not significantly correlated in their study. Again, it may be that the differences in the results are due to differences in the methodology. As there was no vignette in this study participants may have considered a greater number of factors as possible causes of challenging behaviour. It suggests that some participants may have tended to respond in a specific way to all the sub-scales. They may have tended to report that all causes of challenging behaviour were either likely or unlikely.

It is difficult to assess whether asking carers to respond to fictional vignettes outlining specific situations, or asking them to consider general causes of challenging behaviour, is likely to be more representative of carers 'real life' attributions. Further research is needed to assess the external validity of the measure.

Thus, it seems likely that the difference in response to the CHABA in this study compared to previous research may be at least partly a result of different

methodologies. The methodology employed in this study may in part explain its lack of correlation with other variables.

Interpersonal Attributions

It seems likely that there is a complex relationship between attributions and emotions (Jones & Hastings, 2003; Noone et al., 2003) and that the CHABA may not be able to capture significant attributions within the methodology employed in this study. This may be due to several factors. The CHABA does not explicitly attempt to capture important interpersonal attributions, such as controllability and globality. These may be crucial in understanding the relationship between emotional reactions and attributions. However, it is possible that items in the CHABA can be interpreted as interpersonal attributions. This ambiguity may affect the relationship between the CHABA scores and those obtained on the emotional reaction to challenging behaviour scale.

Interpersonal attributions may be more significant in understanding the relationship between attributions and emotional responses (e.g. Dagnan, Trower & Smith, 1998; Stanley & Standen, 2000) than those measured by the CHABA. Furthermore, judgements about the controllability and stability of behaviour may be more relevant than the attributions assessed by the CHABA (e.g. physical environment, stimulation) when understanding the links between attributions and emotions. Although previous research has found a link between CHABA scores and emotional responses (Hastings & Brown, 2002) interpersonal attributions may be more

pertinent in trying to fully understand this relationship than the type of attributions assessed by the CHABA.

Some of the items in the CHABA may implicitly reflect interpersonal attributions. Items in the 'learned positive reinforcement' sub-scale (e.g. 'they want something', 'they want attention from other people') may reflect carer judgements of intentionality, whilst items in the biomedical sub-scale (e.g. 'of some biological processes in their body', 'they are physically disabled') may represent judgements of stability. This may reduce the content validity of the sub-scales of the CHABA and make the items on it ambiguous. Attributions about controllability and stability are likely to be linked to emotional response to challenging behaviour (Dagnan et al., 1998; Tynan & Allen, 2002) but these are not measured explicitly on the CHABA. Some participants may link these attributions to different items in the CHABA and this is likely to reduce the chances of finding consistent links between CHABA scores and emotional reactions to challenging behaviour.

Thus, there are several difficulties with the use of the CHABA in this study that may have resulted in no relationship between attributions and other variables being found.

2. How frequently do staff receive support in managing challenging behaviour, and do they find this support helpful?

29.2% of staff reported having team meetings weekly, 16.9% fortnightly, 44.6% monthly and 9.2% less than monthly or never. The mean rating for frequency of discussions about challenging behaviour at these team meetings was between

'usually' and 'always'. The mean rating for helpfulness of these discussions was 3.76 out of 5. This suggests that staff are engaged in relatively frequent discussions about challenging behaviour in team meetings, and that they are finding these discussions generally useful. However, worryingly some staff reported that they rarely, if ever, have team meetings.

4.5% of participants reported having supervision weekly, 13.6% fortnightly, 60.6% monthly and 21.2% less than monthly or never. The mean rating for frequency of discussions about challenging behaviour in supervision was between 'usually' and 'always'. The mean rating for helpfulness of these discussions was 3.76 out of 5. This suggests that staff are engaged in relatively frequent discussions about challenging behaviour in supervision, and that they find these discussions generally useful. However, the finding that 21.2% of staff are receiving supervision less than monthly or never is extremely concerning.

7.6% of staff reported having received no training, 39.4% one or two short courses, 47.0% several courses and 6.1% training leading to a qualification. They reported the mean helpfulness of this (3.67) to be at similar levels to both the supervision and team meeting discussions indicating that most participants found training helpful.

94.5% of respondents reported that there were written guidelines to help manage the challenging behaviour of their service users. They reported the mean helpfulness of them to be 3.67 (SD 1.13), indicating that they found them helpful. 10.6% of participants reported that they could only contact their manager or senior member of staff if they were on shift, 4.5% reported that they could rarely contact them,

34.8% said they could usually contact them and 50.0% said that they could always contact them. The mean score for helpfulness was 3.71 (SD 1.13), indicating that participants found this contact helpful. Several participants commented that whilst they could not always contact *their* manager *a* manager from their organisation was always on call. Despite this, concern must be raised that only 50.0% of participants felt that they would definitely be able to contact a senior member of staff if they needed them.

Participants in this study generally reported receiving at least monthly team meetings and monthly supervision, and found this helpful. They reported receiving between 1 or 2 short training courses and several training courses on the management of challenging behaviour, and again reported finding these helpful. However, concern must be raised about the number of participants who reported receiving little support. These figures compare favourably with those described by McVilly (1997) who reported lower ratings for appraisal and supervision (mean 6.3 out of 10, SD 2.77) and staff support meetings (mean 5.8 out of 10, SD 2.71), and found that staff felt under prepared to manage challenging behaviour. It may be that the importance of staff support has become more recognised and this has resulted in better levels and quality of support. However these findings must be interpreted with caution.

There may be other explanations for the differences between McVilly's study and this research. There are significant differences in methodology. Firstly, McVilly was asking participants for general ratings of appraisal, supervision and team meetings, rather than assessing the frequency and helpfulness of discussions specifically around challenging behaviour. This may have generated different results. Secondly,

he also asked staff to initially rate the importance of support in these areas, before asking them whether they felt the agency they worked for was effective in this area. This may have resulted in the respondents in his study comparing their received level of support with an ideal level, which could have caused them to view their received support more negatively. Thirdly, this study did not ask staff to rate how well the organisation had prepared them for the management of challenging behaviour, and it may be that despite reporting experiences in training, supervision and team meetings they still felt under prepared.

Both McVilly (1997) and the current study do not take account of differences between homes, and the different sample sizes taken from each residential unit. For example, in this study two houses in separate boroughs accounted for 15 of the 19 participants who reported that they had weekly team meetings. Thus, the percentage of carers reporting weekly team meetings in this study may be over-representative of the overall percentage of carers that receive weekly team meetings. This highlights the importance of assessing and understanding policies specific to particular homes.

The amount of staff that reported receiving little or no supervision and rarely attending team meetings is clearly cause for concern. Similarly, some staff reported low levels of training and that this training to be of little help when confronted with challenging behaviour. Difficulty in understanding unpredictable challenging behaviour and formulating effective management strategies for this behaviour are among the main source of stressors reported by carers (Bromley & Emerson, 1995). A lack of organisational support addressing these issues may well have implications for the psychological well being of both staff and service users.

Several other factors may be of importance when considering these results. Firstly, the relationship of frequency and helpfulness of discussions about challenging behaviour to actual carer behaviour is unknown and again highlights the potentially limited external validity of questionnaire-based research. Secondly, the reasonably high satisfaction reported by participants may represent a phenomenon often found in client satisfaction surveys in which respondents generally report high levels of satisfaction with little variability (Garland et al., 2000). This may result in a lack of specificity and limit their clinical utility. It may have been helpful to try and counteract this tendency towards giving a positive report of satisfaction by giving participants more scope to express negative feelings about the support they receive. For example, the scales were anchored by 'not helpful at all', which represents a neutral position. It may have been helpful to anchor this end of the scale with wording that allowed participants to express negative feelings about the support they were receiving, such as 'very unhelpful'.

Two further potentially useful modifications were identified. No participants reported that they were receiving group supervision (items 3-5). Several participants filled in this section and then crossed out their responses when they came to the next item that asked about team meetings. It seems likely that there was some confusion between team meetings and group supervision, and it may beneficial to remove the item about group supervision from the CBSQ. Also item 11 asked whether they could contact '*their* manager' if an incident of challenging behaviour occurred. Several participants reported that they could contact an on call manager from the

organisation, but not necessarily their manager. Thus, the wording may need to be changed to '*a* manager'.

Two items on the scale did not correlate as significantly with the other items. These were the items investigating whether written guidelines were present and the frequency of team meetings. The written guidelines item was a yes/no response and 94.5% of respondents reported 'yes'. This restricted variability of response is likely to limit correlations with other items. However, participants did give a varied response to the item concerning frequency of training. This suggests that frequency of training concerning challenging behaviour is not in itself a significant factor in staff support, but that the helpfulness of this training may be more important.

Despite these limitations the scale may be a useful measure in both research and clinical practice. The scale as a whole has a Cronbach's Alpha value of 0.81. This suggests that it has good internal consistency (Barker, Pistrang & Elliot, 1994). It appears to have good face validity. There is no data on its test-retest reliability. The correlation with the 3SQ ($P=0.44$, $p<0.05$) suggests that it is tapping a related, but distinctive aspect of staff support (i.e. it has some convergent validity). It also correlates significantly with the self-efficacy in dealing with difficult behaviour measure, suggesting that the CBSQ has further convergent validity. This measure may allow clinicians who are working with carers to obtain some basic, useful information about the support offered by the organisation and differing perceptions of this support within the staff team.

3) Do managers and staff have similar view on the frequency and helpfulness of support provided/received in managing challenging behaviour?

Scores on the CBSQ and the manager's version of the CBSQ were compared. No significant difference was found between them. These results suggest that managers and support staff have similar views about the frequency and helpfulness of the support that support staff receive on the management of challenging behaviour. Although the managers' version of the scale was not as reliable as the support staff's version this may be because there were only 11 completed scales.

4) Is support specifically focussed on challenging behaviour related to the staff's overall perception of the organisation as supportive or unsupportive?

This study measured these two constructs using the 3SQ and CBSQ. The scores from these two measures were significantly correlated (Spearman's rho=0.44, $p<0.01$). The 3SQ measures levels of perceived organisational clarity, support and job satisfaction, whilst the CBSQ assesses the amount of helpful discussions about challenging behaviour, and the provision of procedures for the management of this behaviour. This suggests that an important part of organisations that are perceived as supportive is the manner in which they address challenging behaviour.

The level of correlation between the 3SQ and the CBSQ suggests that they are measuring different but related aspects of staff support. It would be expected that in services that have a positive general organisational culture, attention would be paid to specific support addressing the management of challenging behaviour, which is

known to be a significant factor in support worker stress (Bromley & Emerson, 1995). This result suggests that this is the case.

Again caution must be drawn before generalising these findings as they do not take into account differences between houses. Different levels of importance may be attached to different facets of support depending on the characteristics of the house and service users. For example, support around challenging behaviour may be of increased importance in a house with several service-users who frequently display severe challenging behaviours, but less so in a house which has one service user who infrequently displays challenging behaviour.

Again, issues concerning external validity are pertinent. The 3SQ is standardised against measures of anxiety and depression. As such, its relationship to actual organisational cultures is unknown, although its correlation with the CBSQ suggests that it may be likely to be related to more objective aspects of organisational culture. However, it may be that people who report higher anxiety and depression scores are more likely to feel unsupported and dissatisfied.

The 3SQ showed little variety in mean scores across the different sub-scales. It was also significantly negatively skewed, meaning that participants were much more likely to report high levels of support and satisfaction. The distribution and mean scores of the 3SQ are not recorded in previous research, and it is thus impossible to know whether this is a feature of this study or a more general property of the measure. This may mean that participants felt generally satisfied and supported. However, it may result from a bias towards reporting positive responses in

satisfaction research (Barker et al., 1994) or it that the measure does not capture the range of different perceptions of staff support.

5) Does staff support increase self-efficacy in managing challenging behaviour?

Staff support predicted 10% of the variance in self-efficacy in the management of difficult behaviours. Neither measure was an independent predictor of self-efficacy. When age, sex and length of service were added as independent variables the level of variance explained was increased to 19%, and length of current employment and the score on the 3SQ independently predicted the fear/anxiety reaction to challenging behaviour.

10% of the variance in self-efficacy scores can be explained by the measures of staff support. Neither of the measures were significant independent predictor of self-efficacy scores. This suggests that both specific support received about the management of challenging behaviour and a generally supportive environment are important factors in developing perceived self-efficacy in dealing with difficult behaviour. However, caution must be taken before assuming that this relationship is a simple one. For example, it is possible that the relationship between staff support and self-efficacy is determined by the intensity of challenging behaviour experienced. Staff support may be a relatively poor predictor of self-efficacy in homes with challenging behaviour of low intensity, but an important predictor for carers who work in homes where there is a greater intensity of challenging behaviour.

Staff support explained only 10% of the variance of self-efficacy. Many other factors may affect self-efficacy, including service-user characteristics, personality of the carer, number of other people present or type of challenging behaviour. The concept of self-efficacy in relation to difficult behaviour has not been studied sufficiently to know whether it is stable or varies over time and situations (Hastings & Brown, 2002b).

Although self-efficacy is a concept widely investigated, little is known about it in the field of carer behaviour towards people with learning disabilities and challenging behaviour. Again, data on the relationship between reported self-efficacy and actual behaviour in caring situations is crucial. In common with much of the research in this area there is currently no information on the external validity of this measure. Items in the scale assess how difficult respondents find dealing with challenging behaviour and how much in control of the challenging behaviour of their service-users they feel. High scores on the scale could indicate feelings of self-efficacy that lead to positive ways of working with people whose behaviour challenges. Alternatively, high scores could also be linked to aversive and controlling ways of managing the behaviour. However, there is some indirect evidence to suggest that carer self-efficacy is desirable. Self-efficacy has been found to be predictor of positive evaluation of older adults by their in carers (Kahana et al., 1996) and has been linked to positive parenting behaviours and lower levels of stress (Coleman & Karraker, 1998).

In conclusion, although there is some evidence that self-efficacy is a desirable quality in promoting positive carer attitudes and behaviour, behavioural characteristics of

carers who report high perceived self-efficacy and work with people with learning disabilities and whose behaviour challenges are still unknown.

When age, sex and length of service are also added to the regression, length of service at current residential unit and the 3SQ are found to be significant independent predictors of self-efficacy. Length of service may be an independent predictor because staff who have been serving longer feel more confident in managing the behaviour of residents who they are likely to have had longer contact with. Alternatively, carers who feel less efficacious may change jobs more often, or increased staff support may lead to both increased self-efficacy and a greater job satisfaction, which may result in lower turnover rates, or that houses in which residents are experienced as less challenging result in staff staying longer and feeling more self-efficacious. Thus, there may be a number of possible explanations for the link between self-efficacy, staff support and length of service and caution must be taken before reaching any conclusions. Hastings (2002b) notes that there may be interactional effects with self-efficacy and levels of challenging behaviour. For example, staff who report low self-efficacy may be at considerably more risk when they are exposed to high levels of challenging behaviour than when they are exposed to low levels. Exploration of such factors may be important in future studies.

6). Does self-efficacy mediate the relationship between negative emotional reactions to challenging behaviour and staff support?

Self-efficacy did not mediate the relationship between emotional reactions and staff support as no direct relationship between these two variables could be found.

However, preliminary analyses showed that self-efficacy was related to the anxiety/fear emotional reaction but not the depression/anger emotional reaction. Thus, each of these sub-scales was used as the dependent variable in separate analyses. It was found that staff support and self-efficacy predicted 20% of the variance of the fear/anxiety reaction to challenging behaviour. Only self-efficacy was a significant independent predictor of the fear/anxiety reaction. Self-efficacy and staff support did not predict the depression/anger reaction to challenging behaviour.

Neither the CBSQ nor the 3SQ approached significance as independent predictors of fear/anxiety reactions, whilst self-efficacy accounted for approximately 75% of the explained variance. This suggests that self-efficacy is an important concept in understanding carers' emotional reactions to challenging behaviour.

However self-efficacy did not play a mediating role between staff support and emotional reactions to challenging behaviour. Mediation would require that emotional reaction to challenging behaviour and staff support were related (Baron & Kenny, 1986). In this study they were not found to be related, and this means that, effectively, there is no relationship to be mediated. This is despite staff support being a significant predictor of self-efficacy, and self-efficacy being a significant predictor of emotional reactions to challenging behaviour.

Self-efficacy and staff support was related to fear/anxiety reactions but not to depression/anger reactions. A possible explanation is that if carers do not feel confident in managing challenging behaviour they may feel they have less control over the situation and may thus feel more anxious, whereas it may be possible to feel

self-efficacious about managing challenging behaviour and also feel angry and/or depressed. Perceived self-efficacy to exercise control over events is known to play a significant role in anxiety arousal (Bandura, 1991).

Considerable research has been carried out into the effects of low self-efficacy in the general population (Bandura, 1996). They have found that low self-efficacy is related to increased vigilance towards threat cues, dwelling on difficulties in coping with threats, magnification of the severity of threats and worry about threats that may never happen. These are in turn is likely to lead to anxiety and impaired levels of functioning (Lazarus & Folkman, 1984; Meichenbaum, 1977; Sarason, 1975). These processes may also be a factor in the link between fear/anxiety reactions and self-efficacy found in this study.

These results in some measure contrast with Hastings and Brown (2002a), who found that self-efficacy was a predictor of both the fear/anxiety and depression/anger sub-scales. It may be that this difference is as a result of the different population used in the different studies (Hastings and Brown recruited teachers from schools for children with learning disabilities).

It is important to note that the direction of the relationship between self-efficacy and fear/anxiety response to challenging behaviour is unclear. It may be that carers who feel more anxious in response to challenging behaviour consequently feel less confident about managing it. Increased levels of anxiety may reduce carers' ability to manage challenging behaviour. For example, it may make them more likely to follow negative reinforcement schedules, which may lead to the perseveration of the

challenging behaviour (Hastings & Mitchell, 1998). Thus, carers who feel more anxious may experience more challenging behaviour, and correctly assess that they are less efficacious in its management.

The intensity of the initial emotional reaction to challenging behaviour may affect both the behaviour of the carer and the service-user, and subsequent attributions of self-efficacy. As self-efficacy and staff support only accounted for 20% of the variance it is clear that there are significant other determinants of their emotional reaction. It is likely that characteristics of the behaviour (e.g. duration, frequency, intensity) and the attributions made about this behaviour (e.g. controllability, stability) have a significant effect on the emotional reaction of the carer. It is also probable that individual characteristics and circumstances of the carer and characteristics of the team that are not assessed by the measures used on this study are significant in determining the individual's emotional response to challenging behaviour. Further understanding of the factors that result in a specific emotional response to challenging behaviour is important.

The data from the emotional reaction to challenging behaviour showed a significant positive skew. This indicates that respondents are tending to rate their emotional responses at the lower end of the scale and that disproportionate numbers of participants were rating their answers in the bottom two categories. This contrasts with Hastings & Brown (2002) who found the data to be normally distributed. However, in Hastings & Brown participants were asked to consider an incident where a service user had directed aggression towards them, whereas in this study respondents were asked how they *typically* felt when working with people who

display challenging behaviour. Thus, in this study participants may have considered a variety of challenging behaviours, many of which are likely to produce a less intense emotional response than physical aggression.

Staff support appeared to have relatively little direct effect on the emotional reaction of carers to challenging behaviour. Rose, David & Jones (2003) found that support did not have such a significant direct association with psychological outcomes when compared to factors such as personality and coping strategy. The relationship between individual factors such as these and emotional reactions to challenging behaviour is relatively unexplored and deserves further attention. It is possible that there are interactions between these factors and staff support, and further research may help identify who is likely to benefit from higher levels of staff support, and in what circumstances.

Role of Age, Sex and Length of Service

All measures were initially tested to assess the possible impact of age, sex and length of service. The only significant finding was that women scored significantly higher in the 3SQ than men. However, in the regression models when age, sex and length of service were included the relationship between the 3SQ and the dependent variable appeared to alter.

The effect of the addition of these three variables on the relationship between the 3SQ and the dependent variable occurred on three regression models. These were:

1) The relationship between staff support and the summed emotional reaction, self-efficacy and attribution scores.
2) The relationship between staff support and the summed emotional reaction and self-efficacy scores.
3) The relationship between staff support and self-efficacy.

On these regressions, following the addition of age, sex and length of service, the beta value of the 3SQ increased by .162, .182 and .174 respectively. This resulted in the 3SQ becoming an independent predictor in two of these three analyses (summed emotional reaction and self-efficacy scores, and self–efficacy scores).

The fluctuation of 3SQ scores suggests that results from these regressions must be interpreted with caution. It is possible that one of the variables, sex, age and length of service is acting as a suppressor variable. A suppressor variable is a variable that 'suppresses' the variance that is irrelevant to the prediction of the dependent variable (Tabachnick & Fidell, 1996). In this case, without the addition of age, sex and length of service the 3SQ is a relatively poor predictor of self-efficacy and is non-significant in every regression. However, the addition of age, sex and length of service to the equation makes the 3SQ a better predictor of self-efficacy. This may be one or several of them remove irrelevant variance in the relationship between the 3SQ and the dependent variable. Once this variance has been accounted for, the 3SQ becomes a greater independent predictor of the dependent variable

Thus, this means that the 3SQ on its own is unlikely to be a reliable predictor of these dependent variables. However, when other variables are taken into account it becomes more significant.

4.3 Clinical Implications

The study has several important clinical implications.

Assessment of Staff Support

The data obtained from the CBSQ highlights worrying deficiencies in the support provided to staff and indicates the importance of including organisational factors in the initial assessment. Though many staff reported receiving regular support containing helpful discussion about the challenging behaviour of their residents, a significant proportion were not experiencing this. Added to this, carers receiving little or no support are likely to be underrepresented in this study. These findings are of great concern for the well being of both carers and service users.

Given that successful management of challenging behaviour involves consistent, appropriate staff behaviour in distressing and often frightening circumstances, organisations need to ensure that information is circulated, management strategies are regularly discussed and reviewed and emotional support is provided to staff (Ager & O'May, 2001). A significant proportion of staff in this study reported that this was not taking place. For clinicians considering an intervention addressing

challenging behaviour this highlights the importance of assessment at organisational level as well as focussing on specific behaviours and interactions. If clinicians find, after an initial assessment, that an organisation has significant deficits in the support that it is providing they may need to consider at what level to intervene. They may even consider whether a behavioural intervention is feasible or appropriate without first intervening to support staff and managers in organisational change (Ball, Brush & Emerson, 2004).

The CBSQ might prove a useful way for clinicians to collect such information about the organisation. It will help establish the level of organisational support that is being offered and how helpful it is perceived to be, as well as revealing different views within the staff team about this support. It might thus prove a useful measure in the initial assessment stages. Its correlation with the 3SQ suggests that it is also important to assess both the specific support provided around challenging behaviour and the more general organisational context.

Self-Efficacy

Understanding the perceived self-efficacy of staff may be a useful consideration when thinking about whether an intervention is plausible. If staff self-efficacy is low then this may need to be understood and addressed before the direct intervention aimed at addressing challenging behaviour is undertaken. Staff support has been shown to be related to self-efficacy and so additional organisational support may be considered as a means of helping staff feel more self-efficacious. Both general organisational support and specific support around challenging behaviour are related

to self-efficacy, and so both of these areas may be targets for assessment and possible intervention.

Self-efficacy was also related to negative reactions to challenging behaviour. Thus, low levels of self-efficacy and high levels of fear/anxiety may result in particular staff behaviours, such as withdrawal from frightening situations, which may in turn reinforce service-user behaviours (Hastings & Mitchell, 1998). However, the link between self-efficacy and actual carer behaviour has not been established and so caution should be taken before assuming that high self-efficacy represents positive management of challenging behaviour.

Managers did not tend to give lower scores on the CBSQ than staff. This suggests that they are reliable reporters of the support their staff receive. However, it may be important to obtain different members of staff's views of the support they receive. It may also be that managers respond differently when they know staff are also commenting on the support that they are offering (as in this study) as opposed to when they are the only informants.

Emotional Reactions

In line with previous research participants reported negative emotional reactions to challenging behaviour. These negative emotional reactions were linked to perceived self-efficacy, with increased self-efficacy resulting in lower fear/anxiety reactions. This suggests that interventions that increase self-efficacy may also have a positive

impact on the psychological well being of the carer and reduce their fear/anxiety reactions when confronted with challenging behaviour.

This study again highlights the negative emotional reactions suffered by staff working with people with learning disabilities and challenging behaviour. Clinicians need to be sensitive and mindful to individual emotional reactions and recognise the impact they may have, both on the carer's general well being and their interactions with service users. Staff may need space to reflect on and normalise these emotions, for example in a support group.

Attributions

The lack of correlation of the CHABA with any of the measures is in itself important information and highlights the complexity inherent in understanding carer attributions about challenging behaviour, and their relation to staff support, emotional reactions and self-efficacy. It appears that increased staff support does not result in a wider range of causal attributions about challenging behaviour, and that having a wider range of attributions is not related to self-efficacy. Thus, when considering interventions or training, simply teaching a range of possible causes of challenging behaviour may not be a profitable strategy. Instead, it may be more relevant to pay attention to individual attributions made about specific service user behaviours at specific times.

The lack of the expected link between scores on the CHABA and emotional reaction scores highlights the importance of considering different types of attribution that may

occur simultaneously. A possible reason for this lack of link is that the CHABA does not explicitly measure important interpersonal attributions. Although there may be consensus on a cause of a behaviour staff may have different attributions about its controllability or stability. An attribution about controllability may influence the carer's emotional response and the likelihood of them carrying out a planned intervention. Thus clinicians need to be sensitive to the different types of attributions that carers may be making and their possible impact on carer behaviour. Detailed understanding of individual carer's attributions may be necessary to facilitate understanding of their emotional response, their self-efficacy, and ultimately their behaviour.

4.4 Limitations of the Study

In this section limitations of the study are discussed. They include the sample, data analysis, limited external validity, social desirability and difficulty in inferring causal relationships.

Sample

There are several characteristics of the sample that may limit the generalisability of the results. The three London boroughs that the sample was collected from are urban areas with diverse social and cultural make-up. The sample may differ significantly from rural areas. Differences between houses run by different organisations were not accounted for and there may be systematic differences between organisations and

between sectors (Blumenthal et al., 1998). These differences may be particularly pertinent as the study concerns differences in organisational characteristics

Only 33% of the houses invited agreed to take part in the study. Although many houses did not take part because they were not currently working with challenging behaviour, several houses did not take part because of other reasons (e.g. time pressure, feeling that 'now was not a good time', difficulties in obtaining line manager approval). Organisational characteristics relevant to the results of this study may, in part, determine the likelihood of houses taking part in the study, and this may introduce a systematic bias to the sampling. As residential units were approached through managers it is also possible that personal characteristics and preferences of the managers influenced their decision to take part. Home managers effectively acted as 'gate-keepers' to accessing participants. This is particularly salient because questions were asking about the support they offered their staff, and so if they felt that these were particularly sensitive areas they may have been less likely to take part in the study.

Although the number of residents reported to show challenging behaviour in each house was recorded no attempt was made to take account of the severity of this behaviour. Thus, there may be significantly different ongoing experiences of challenging behaviour in different houses and this may be a factor in determining levels of self-efficacy and emotional reactions to challenging behaviour. Resident characteristics are probably the most significant demand placed on staff (Dyer & Quine, 1998). They may also be a predictor of levels of staff support, as carers working with people with challenging behaviour have been shown to report lower

levels of support (Jenkins et al., 1987). Thus, their exclusion from the analysis may be a significant omission.

Data Analysis

The data analysis in this study did not take account of its clustered nature. Data was collected from 13 houses, and all of these houses have different characteristics. They may vary in terms of the measured variables (for example, different levels of staff support), the relationships between these variables (e.g. the relationship between staff support and self-efficacy might be dependent on the number of residents in each house), and possibly further unmeasured factors (e.g. location, number of vacancies in staff team). Thus, without comparing the data between different houses, it is assumed that the results are representative of all the houses. It may be profitable in future research to take account of the clustered nature of the data in the analysis using higher level modelling. However, this was not possible in this research, as a significantly larger sample would be needed to generate reliable estimates of differences between houses.

The power analysis suggested that 85 participants needed to be recruited in order to find a main effect. 71 total participants were recruited, of which 5 participants' data was incomplete to a degree that meant that all their data was discarded. Thus the statistical end-point was not reached. This may have limited the power of the study and some of the results that were approaching significance may have reached significance if 85 participants had been recruited. However, the power calculation was based on a correlation between behavioural attributions, self-efficacy and

emotional reactions to challenging behaviours (Mitchell and Brown, 2002). Significant relationships were found between self-efficacy and emotional reaction to challenging behaviour. As previously discussed, attributions did not approach significant correlations with other variables in the study and it appears unlikely that the addition of 19 more subjects would have altered this.

A further weakness of the study is that the analysis did not include consideration of effect sizes. Correlations between measures varied between .29 and .67 (see table 11), and this indicates effect sizes from small/medium through to large (Cohen, 1988). However, the implications of these different effect sizes are not considered in this study, and this may have been useful in giving a more subtle understanding of the implications of the results.

Social Desirability

Much of the data was collected at team meetings. At one team meeting the manager left the room, explaining that staff might find it easier to answer the questionnaire if she was not present. At all other team meetings the manager was present as the staff were filling in the questionnaire. Although staff were assured that all of their responses were confidential the presence of their manager may have influenced their responses. Possible direction of influence may have been to over-report staff support and self-efficacy and under report negative emotions.

Mitchell and Hastings (1998) found that the emotional reaction to challenging behaviour was not affected by social desirability. However, it is unclear under what

circumstances they issued the questionnaire (i.e. by post, at residential homes) and so it is difficult to know the generalisability of this result. The Staff Support Questionnaire (the forerunner to the 3SQ) was administered to a staff team on a unit for people with learning disabilities and challenging behaviour with the Marlowe-Crowne Social Desirability Scale (M-CSDS; Crowne & Marlow, 1964). Carers were found to score higher on the M-CSDS than undergraduates tested in the original paper (Bell & Espie, 2002). There is no record of any of the other measures being tested for social desirability responses.

Limited External Validity

An important limitation of this and much previous research in this area is its limited external validity. Hypothesised relationships between scores on emotional reactions to challenging behaviour, the CHABA and carer behaviour have been made, but there has been no test of these relationships to actual behaviour. There is no clear hypothesised link between scores on the self-efficacy in dealing with difficult behaviour measure and carer behaviour and, as discussed, some of the items on this scale could represent both positive and negative ways of interacting with service-users. The 3SQ has been show to relate to anxiety and depression scores, which have in turn been associated with levels of stress in residential homes, which have been associated with lower levels of positive interaction with service-users (Rose, Jones and Fletcher, 1998). Thus, there is some tenuous evidence for its link to carer behaviour, though these findings are not in the context of challenging behaviour. However, the 3SQ was not independently linked to emotional reactions to

challenging behaviour or self-efficacy scores, further weakening the possible link to actual behaviour.

Difficulty in Inferring Causal Relationships

As a correlation study unequivocal causal inferences cannot be made (Barker et al., 1994). For example, intuitively it would be expected that there would be a causal relationship between staff support and efficacy in dealing with challenging behaviour. However, it is possible that both are caused by personality factors and thus the apparent causal relationship is spurious. Difficulties in concluding that there is a causal link between increased self-efficacy and reduced anxiety when managing challenging behaviour have been discussed previously.

4.5 Further Research

There are a number of possible areas of further research.

Development of the CBSQ

The CBSQ appears a promising measure. It is quick to complete, has good face validity and internal reliability, and can provide important information about support available and how helpful this is perceived to be. It may thus be a useful tool for clinicians and researchers in this field. To develop the measure further it would be necessary to make the two alterations previously described. Following this, a larger scale study would be needed and subsequent item and factor analysis.

Role of Self-Efficacy

Self-efficacy appears to be an important concept, related to both measures staff support and measures of challenging behaviour. Little data is available on the level of carers' self-efficacy, whether it is stable over time and in what circumstances it is reduced or elevated. It may be expected to be linked to personality factors and resident characteristics. It may also have a role in evaluating staff support and training.

External Validity

Establishing external validity is problematic for many of the constructs in this study. There are no studies that link these measures of emotions, attributions and beliefs about self-efficacy to actual behaviour. However, negative emotional reactions to challenging behaviour have been found to be linked to depersonalisation and emotional exhaustion (Mitchell & Hastings, 2001). Observing carer interactions involving challenging behaviour are one way of obtaining external validity. However, there are several difficulties associated with this. Ethically, it may be problematic to observe challenging behaviour. It may place carers under pressure and make them feel judged. It may also produce observer effects, thus making this data less reliable.

Relationship between Attributions and Staff Support

Further research may be important in investigating whether there is a link between staff support and attributions made about challenging behaviour. In particular, the effect of staff support on interpersonal attributions has not been investigated and may prove important in understanding whether positive supportive organisational cultures promote different interpersonal attributions about challenging behaviour.

4.6 CONCLUSION

This study demonstrated clear links between staff support and self-efficacy, and self-efficacy and fear/anxiety reactions to challenging behaviour. As such, it provides new information about the role of staff support and provides important evidence that staff support promotes self-efficacy in the management of challenging behaviour, which is likely to reduce negative emotional reactions to challenging behaviour. Staff support was not found to be directly correlated to emotional reactions to challenging behaviour in this study. Thus, self-efficacy could not be said to have a mediating effect between staff support and self-efficacy. However, it is possible that in a larger study this relationship would be significant.

However, attributions about the causes of challenging behaviour were not shown to be related to other variables. This is probably due to the methodology employed in this study. Although, this study failed to replicate Mitchell & Brown's (2002a) findings that behavioural attributions about challenging behaviour were related to negative emotional reaction to this behaviour it seems likely that attributions play an important role in carer response to challenging behaviour.

The CBSQ was found to be a promising measure for clinicians and researchers with good internal reliability and promising validity. However, it would benefit from further development and further data concerning its reliability and validity. In this study it gave valuable information concerning the frequency and helpfulness of staff support around challenging behaviour. Although many staff appeared to feel well supported a significant proportion described worryingly low levels of support.

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Appendix B

Sub-Department of Clinical Health Psychology
UNIVERSITY COLLEGE LONDON
GOWER STREET LONDON WC1E 6BT

General Enquiries:
Clinical Tutor Team:
Senior Secretary:
UCL Switchboard:
Code from overseas: +44 20
Fax: 020-7916 1989
www.ucl.ac.uk/clinical-health-psychology/

Dear X

We are carrying out a research project looking at the experiences of support staff who work with people with learning disabilities and challenging behaviour. Assuming that your home works with service users who have challenging behaviour, we are hoping that you may be able to help us with this study.

The study looks at several areas. They include:

- The amount of support that the organisation is giving to its support staff, for example in supervision, training and team meetings.
- Whether support workers feel that this support helps them understand the causes of challenging behaviour, and then to manage this behaviour.
- How support workers feel when they experience challenging behaviour

What does taking part involve?

Participation in the study involves support staff completing a few questionnaires. They address areas such as how confident staff feel in dealing with challenging behaviour, how they feel when faced with challenging behaviour and what they think causes such behaviours. They would also be asked their impression of the support they receive and how useful this is in their work with service users. All responses will be assured complete confidentiality.

The home manager will also be asked to complete a short questionnaire. This would take about ten minutes and would ask about the number of residents at the home and how many show challenging behaviour. It would also ask about the support that is offered to staff.

The main researcher, David Head, trainee clinical psychologist, will visit the home, ideally on occasion of a staff meeting, in order to distribute the questionnaires and answer any questions that people have. As noted, all information would be treated as strictly confidential.

How can your organisation benefit from taking part?

If your home agreed to take part in the study, we would be happy to provide feed back on the study's overall findings to both you and other appropriate people in the organisation. This may provide invaluable information to assist you in offering support to staff in relation to residents who present with challenging behaviours.

We think that this is an important area of study. If employees do not feel supported they are at risk of feeling demoralised. This in turn may affect both their work with service users, and rates of absenteeism and staff turnover. These are important considerations not only for support staff, but also their managers and employing organisations.

If you are interested in taking part, or would like to discuss the project further, please contact David Head by leaving a message on an answer-phone service on Tel: ***** ******. Alternatively you can contact David by e-mail: ********** David will be happy to discuss any questions you may have over the telephone or during an initial visit before you reach a decision whether to take part in the study or not.

David is being supervised by Katrina Scior in carrying out this project. The project has received ethical approval from an NHS Ethics Committee.

Thank you very much for your time.

Yours Sincerely

David Head
Trainee Clinical Psychologist

Dr Katrina Scior
Clinical Psychologist

Appendix C

Sub-Department of Clinical Health Psychology
Sub-Department of Clinical Health Psychology
UCL UNIVERSITY COLLEGE LONDON

General Enquiries:
Clinical Tutor Team:
Senior Secretary:
UCL Switchboard:
Code from overseas: +44 20
Fax:
www.ucl.ac.uk/clinical-health-psychology/

The Effect of Organisational Support on Care Staff Reactions to Challenging Behaviour

I am a trainee clinical psychologist studying at University College, London. I have obtained a degree in psychology and as part of my further training I am carrying out a research study. You are being invited to take part in this research study. Before you decide it is important for you to understand why the research is being done and what it will involve. Please take time to read the following information carefully and discuss it with others if you wish. Ask me if there is anything that is not clear or if you would like more information. Take time to decide whether or not you wish to take part.

What is the purpose of the study?

I am aiming to find out more about of the experiences of care staff who work with people with learning disabilities and challenging behaviour. Working with this client group is a demanding job, and people employed in this area need support from the organisation they work for. This includes supervision, training and team meetings.

I am keen to find out what care staff working for different organisations think about the support they receive. I want to find out more about how important support is in helping care staff work with people who have challenging behaviour. I am particularly interested in finding out how effective this support is in helping staff understand and manage challenging behaviour. Although this study may not benefit you directly it may help us understand how organisations can best support the staff that they employ.

Who has been invited to take part in the study?

I have approached managers of homes that have at least one resident who has a learning disability and challenging behaviour. I asked them if they would ask care

staff working in their home if they would be interested in taking part in this study and to forward this information. There will be a total of about 80 people in the study.

Do I have to take part?

It is up to you whether or not to take part. If you decide not to take part you do not have to give a reason and this will in no way be held against you. If you do decide to take part you will be given this information sheet to keep and asked to sign a consent form. You will also be given a copy of the consent form to keep. If you decide to take part you are still free to withdraw at any time and without giving a reason. If you do this then any information which you have already given will be destroyed.

What do I have to do?

I will arrange to meet you at a team meeting. At this meeting I will be available to answer any questions that you may have. I would then ask you to sign a consent form indicating that you agree to take part in the study. If you do decide to take part you can still change your mind and stop at any point.

If you choose to take part you will be asked to complete 5 questionnaires. This is likely to take about 35 minutes. All of the information you give will be confidential. Two of these questionnaires will ask about the support you receive at work. The other three will be asking about aspects of your work with people with learning disabilities and challenging behaviour. I will be there to help you with any questions you have about the questionnaires. You do not have to answer every question in the questionnaire and may omit questions if you do not wish to answer them.

What happens to the information?

I will then collect the questionnaires. They will be stored in a locked filing cabinet at University College London Offices and only I will have access to them. They will be destroyed seven years after the end of the study. I am aiming to publish the results as part of my doctoral thesis, which will be stored at the address below, and also in an academic journal. All published work will maintain your anonymity. A summary sheet of my findings will be available to all participating homes and I am willing to provide further information about the results in person if this is requested.

You can contact me if you have any questions at:

Sub-Department of Clinical Health Psychology
University College London
Gower Street
London WC1E 6BT

You can also leave a message on an answer-phone service on ***** ****** and I will call you back.

David Head Ma (Hons)

Appendix D

People with learning disabilities sometimes engage in what are called *challenging behaviours*. These are behaviours that might be dangerous for the individuals themselves (e.g., biting or hitting themselves, bashing themselves against objects), or to others (e.g., kicking, punching, or biting other residents or staff). Such behaviours also include other actions that are considered inappropriate within society in general (e.g., sexually inappropriate behaviour, verbal abuse, eating inedible substances/objects, smearing, persistent shouting/screaming).

We are interested in why YOU think that people with learning disabilities display challenging behaviours such as those described above. Consider how likely it is that each of the following statements are reasons for people with learning disabilities engaging in challenging behaviours. Simply think generally about the most likely reasons for people with learning disabilities behaving in this way.

Please give your response to each of the possible reasons, and use the scales below each reason to indicate your opinion. The key shows what the points on the scales mean

VUL = Very Unlikely
UL = Unlikely
E = Equally Likely/Unlikely
L = Likely
VL = Very Likely

Please indicate your response by ***placing a circle*** around the appropriate point on the scale.

People with learning disabilities engage in challenging behaviours BECAUSE...

1. They are given things to do that are too difficult for them	VUL	UL	E	L	VL
2. They are physically ill	VUL	UL	E	L	VL
3. They do not like bright lights	VUL	UL	E	L	VL
4. They are tired	VUL	UL	E	L	VL
5. They cannot cope with high levels of stress	VUL	UL	E	L	VL
6. Their house/classroom is too crowded with people	VUL	UL	E	L	VL
7. They are bored	VUL	UL	E	L	VL
8. Of the medication that they are given	VUL	UL	E	L	VL
9. They are unhappy	VUL	UL	E	L	VL
10.They have not got something that they wanted	VUL	UL	E	L	VL

11.They live in unpleasant surroundings	VUL	UL	E	L	VL
12.They enjoy it	VUL	UL	E	L	VL
13.They are in a bad mood	VUL	UL	E	L	VL
14.High humidity makes them uncomfortable	VUL	UL	E	L	VL
15.They are worried about something	VUL	UL	E	L	VL
16.Of some biological process in their body	VUL	UL	E	L	VL
17.Their surroundings are too warm/cold	VUL	UL	E	L	VL
18.They want something	VUL	UL	E	L	VL
19.They are angry	VUL	UL	E	L	VL
20.There is nothing else for them to do	VUL	UL	E	L	VL
21.They live in a noisy place	VUL	UL	E	L	VL
22.They feel let down by somebody	VUL	UL	E	L	VL
23.They are physically disabled	VUL	UL	E	L	VL
24.There is not very much space in their house/classroom to move around in	VUL	UL	E	L	VL
25.They get left on their own	VUL	UL	E	L	VL
26.They are hungry or thirsty	VUL	UL	E	L	VL
27.They are frightened	VUL	UL	E	L	VL
28.Somebody they dislike is nearby	VUL	UL	E	L	VL
29.People do not talk to them very much	VUL	UL	E	L	VL
30.They want to avoid uninteresting tasks	VUL	UL	E	L	VL
31.They do not go outdoors very much	VUL	UL	E	L	VL
32.They are rarely given activities to do	VUL	UL	E	L	VL
33.They want attention from other people	VUL	UL	E	L	VL

Appendix E

Below is a list of emotions that caregivers have said that they experience when they have to work with 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 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 people who display challenging behaviours

	No Never	Yes, but very Infrequently	Yes, Frequently	Almost Always
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 F

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

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

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

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

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

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

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

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

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

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

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

Appendix G

STAFF SUPPORT & SATISFACTION QUESTIONNAIRE

Please read these instructions carefully before completing.

1. Please answer the questions on your own before you talk to other staff about it.
2. Do not put your name on the questionnaire as the results will be compiled to give a group view of staff support needs.
3. The answers you give will be treated as strictly confidential and only the group view of staff support will be shown to others.
4. Remember there are no right or wrong answers – give ***your*** opinion about ***your*** support needs

Please complete the following about yourself and your place of work:

Your job title:

You are:	Part-time	1	Full-time	2
You work in:	Community	1		
	Education	2		
	Hospital	3		
	Other, please specify	4	_____	

Length of time in current place of work:
(circle the closest)

Less than 1 year	1	Less than 2 years	2
Less than 5 years	3	More than 5 years	4

Your gender: Female	1	Male	2

Your age:
(circle the closest)

Less than 20 years	1	Less than 25 years	2
Less than 35 years	3	Less than 45 years	4
Less than 55 years	5	More than 55 years	6

1. **How clear are you about the main objectives you should be working towards in your job?**

Very clear	5	4	3	2	1	Very unclear

2. **How clear are you about what your direct line manger expects from you?**

Very clear	5	4	3	2	1	Very unclear

3. **How clear are you about the limits of responsibility on your present position?**

Very clear	5	4	3	2	1	Very unclear

4. **How clear are you about how satisfied your direct line manager is with what you do?**

Very clear	5	4	3	2	1	Very unclear

5. **Is there somebody you can talk to at work if you are experiencing difficulty in your job?**

Always	5	4	3	2	1	Never

How satisfied are you with this?

Very satisfied	5	4	3	2	1	Very dissatisfied

6. **If you were unable to cope with a situation at work, is there anybody you can call on for practical help?**

Always	5	4	3	2	1	Never

How satisfied are you with this?

Very satisfied	5	4	3	2	1	Very dissatisfied

7. **How clearly have personal risk situations been identified at your place of work?**
(i.e. situations that may threaten you personally)

Very clear	5	4	3	2	1	Very unclear

How satisfied are you with this?

Very satisfied	5	4	3	2	1	Very dissatisfied

8. **How clear are the procedures about what to do if something goes wrong?**

Very clear	5	4	3	2	1	Very unclear

How satisfied are you with this?

Very satisfied	5	4	3	2	1	Very dissatisfied

9. **How often do you turn to the following people for support when you are experiencing difficulty at work?**

i) ***Direct line manager***

Always	5	4	3	2	1	Never

How satisfied are you with this?

Very satisfied	5	4	3	2	1	Very dissatisfied

ii) ***Colleagues***

Always	5	4	3	2	1	Never

How satisfied are you with this?

Very satisfied	5	4	3	2	1	Very dissatisfied

10. Finally, please respond to the following statements:

	Agree Strongly	Agree	Undecided	Disagree	Disagree Strongly
I am satisfied with my present situation at wor	5	4	3	2	1
I feel I belong to a valued staff group	5	4	3	2	1
I am satisfied with my present level of involvement in decision making	5	4	3	2	1
I often think about finding another job	5	4	3	2	1
Overall, I am satisfied with the degree of support I receive in my job	5	4	3	2	1

11. **Please write any comments you would like to make: (continue on the back of this page if necessary)**

Appendix H

STAFF SUPERVISION AND TRAINING QUESTIONNAIRE

1. Please answer the questions on your own before you talk to other staff about it.
2. Do not put your name on the questionnaire as the results will be compiled to give a group view of staff training and supervision needs.
2. The answers you give will be treated as strictly confidential

1) How much previous training have you attended on challenging behaviour?

No training	1	1 or 2 short courses	2
Several Courses	3	Professional Qualification	4

2) If you have attended training, on a scale of 1 to 5 how useful has it been in helping you deal with the challenging behaviour of your residents?

1	2	3	4	5
Not helpful at all				Very Helpful

3) How often do you receive individual supervision?
(Please circle the closest)

Weekly	1	Fortnightly	2
Monthly	3	More than monthly or never	4

If you do receive individual supervision, please complete questions 4 and 5. If you do not receive individual supervisions then please go to question 6.

4) In supervision, how often do you discuss the challenging behaviour of your residents?

Never	1	Rarely	2
Usually	3	In every supervision	4

5) On a scale of 1 to 5 how helpful have you found these discussions in dealing with challenging behaviour of your residents?

1	2	3	4	5
Not helpful at all				Very Helpful

3) Do you have supervision as part of a group?
(Please circle the closest)

Weekly	1	Fortnightly	2
Monthly	3	More than monthly or never	4

If you do receive supervision as part of a group, please complete questions 4 and 5. If you do not receive supervision as part of a group then please go to question 6.

4) In this, how often do you discuss the challenging behaviour of your residents?

Never	1	Rarely	2
Usually	3	In every supervision	4

5) On a scale of 1 to 5 how helpful have you found these discussions in dealing with challenging behaviour of your residents?

1	2	3	4	5
Not helpful at all				Very Helpful

6) How often do you have team meetings?

Weekly	1	Fortnightly	2
Monthly	3	More than monthly or never	4

7) In team meetings, how often do you discuss the challenging behaviour of your residents?

Never	1	Rarely	2
Often	3	In every team meeting	4

8) On a scale of 1 to 5 how helpful do you find this in dealing with challenging behaviour of your residents?

1	2	3	4	5
Not helpful at all				Very Helpful

9) Are there any written guidelines to help you manage the challenging behaviour of the residents?

Yes	1	No	2

10) On a scale of 1 to 5 how helpful do you find these guidelines in dealing with challenging behaviour of your residents?

1	2	3	4	5
Not helpful at all				Very Helpful

11) If an incident of challenging behaviour occurs when you are working, and you need to contact your manager or a senior member of staff, how easy is it to do this?

Can only contact them if they are on shift	1
Can sometimes contact them	2
Can usually contact them	3
Can always contact them immediately	4

If you have had to contact a manger or senior member of staff about challenging behaviour when you have been on shift, then please answer question 12.

12) On a scale of 1 to 5 how helpful do you find this contact in dealing with challenging behaviour of your residents?

1	2	3	4	5
Not helpful at all				Very Helpful

Appendix H

1) CBSQ

No difference according to: Age $F(4,63) = 1.44$, $p = 0.37$

Sex $F(1,65) = 9.79$, $p = .326$

Length of Service $F(3,63) = 9.77$, $p = .410$

2) CHABA

Kruskal-Wallis test performed as data non-parametric. Non-significant results shown in table 19

Table 19 Chi-square figures for non-significant effects of age, sex and length of service on sub-scales and total CHABA scores

Sub-Scale	Age	Sex	Length of Service
PE	/	0.22	2.33
BM	3.53	0.35	3.52
EM	10.66	1.59	3.62
LN	4.44	1.47	6.01
LP	4.94	0.80	4.16
ST	5.48	0.58	5.38
Total	9.02	0.37	5.44

3) Non-significant results in analysis of 3SQ:

Age	Chi-Square (3) = 3.44, p =0.558
Length of Service	Chi-square = 4.93 (4), p=.177
Sex	Chi-square = 0.55 (1), p=0.457

4) Non-significant results in analysis of Emotional reactions to challenging behaviour sub-scales.

Anxiety/Fear Sub-scale:

Age	Chi-Square (3) = 1.67, p =0.800
Length of Service	Chi-square (4)= 1.37, p=.710
Sex	Chi-square (1) = 0.16, p=0.66

Anger/Depression Sub-scale:

Age	Chi-Square (3) = 3.78, p =0.436
Length of Service	Chi-square (4)= 4.58, p=.205
Sex	Chi-square (1) = 0.33, p=0.57

5) Non-significant results in analysis of Difficult Behaviour Self-Efficacy Scale

Age	Chi-Square (3) = 3.25, p =0.516
Length of Service	Chi-square (4) = 2.61, p=0.455
Sex	Chi-square (1) = 2.11, p=0.646

6) Non-significant correlations between measures (See Table 20)

Table 20 Non-significant correlations between measures

	BM	EM	LN	LP	PE	ST	Total CHABA
Em (Anx)	0.053	-0.034	-0.121	-0.10	-0.14	0.35	-0.023
Em (Dep)	-0.22	-0.23	-0.108	0.100	-.012	0.98	-0.007
Self Eff	0.65	0.133	0.033	0.027	-0.015	0.030	0.105
Total CBSQ	0.015	0.170	0.033	0.090	0.095	-0.006	0.115
Total 3SQ	0.144	0.158	-0.145	0.216	-0.002	-0.119	0.033

7) Addition of age, sex and length of service to the regression model for fear/anxiety responses (See Table 20)

Table 20 Result of the regression model for summed score with age, sex and length of service added as predictor variables

Predictor	B	*P*- value
CBSQ	-.016	.911
3SQ	-.088	.595
Self-Efficacy	-.397	.004*
Age	.019	.897
Sex	-.109	.382
Length of Service	-.056	.711

* $p<0.05$