Challenging Behaviour: An Investigation of Attributions and Stress in Staff Working in Learning Disability Services

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I hereby declare that:

The thesis has been composed by myself and the work contained herein in my own.

CONTENTS

ABSTRACT

Objectives: Challenging behaviour may produce a range of emotional reactions (e.g. annoyance, fear, anger) amongst staff in learning disabilities (e.g. Bromley and Emerson, 1995) and can be stressful. Attributional models may help explain why staff experience differing levels of stress when working with clients that challenge. Research has focused on the relationship between attributions and emotion in helping behaviour (e.g. Sharrock, Day, Qazi and Brewin, 1990; Dagnan, Trower and Smith, 1998; Stanley and Standen, 2000). There has been little research that has considered attributions in relation to stress. Study one of the present research explored attributions and stress in staff that work with clients with learning disabilities and challenging behaviour.

Training is a valuable avenue for increasing knowledge amongst those working in the field of learning disabilities. Training can increase carers knowledge of challenging behaviour and can contribute to the development of appropriate beliefs about behaviour (Hastings, Remington and Hopper, 1995). Study two explores the effect of training in challenging behaviour on attributions and stress.

Design: Study one used an exploratory questionnaire design to obtain the views of staff working in learning disability services. Study two looked at the effects of training on the measures studied.

Method: A questionnaire was designed for the purposes of the study. Reliability and validity was measured. Seventy-six care staff participated in study one. Thirty-nine staff participated in training in challenging behaviour and completed the same measures at three different time scales.

Results: The relationships between factors are examined, as is the relationship between variables and demographic variables such as experience. Changes in the measures following training are explored.

Conclusions: Results are discussed with reference to previous research findings and clinical implications are discussed.

INTRODUCTION

Learning Disabilities

Over one million people in the UK have learning disabilities (20 people per 1000) (Sperlinger, 1997). Learning disability/disabilities is the terminology with the greatest currency within the UK (BPS, 2000), and will be the preferred term throughout the thesis. In terms of diagnosis and classification there are a number of features of learning disability which have gained widespread acceptance across professional boundaries within the UK and America (e.g. American Association on Mental Retardation, 1992; World Health Organisation, 1992; American Psychiatric Association, 1994; Department of Health, 1998). There are three core criteria common to all definitions: a significant impairment of intellectual functioning; a significant impairment of adaptive/social functioning and the age of onset before adulthood. All three criteria must be met for a person to be considered to have a learning disability.

Challenging Behaviour

Large proportions of people with learning disabilities engage in actions that are considered challenging. Cullen (2000) reported that the term was originally adopted from the Association for Persons with Severe Handicaps, a North American organisation, and was given prominence in the UK by Blunden and Allen in 1987. The term has become very common in the past decade. Thurman (1997) noted that the phrase challenging behaviour has become part of the everyday language in the field of learning disability. There has been a vast amount of literature in the learning disability field devoted to challenging behaviour. One of the most quoted definitions refers to challenging behaviour as "culturally abnormal 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 seriously limit use of, or result in the person being denied access to, ordinary community facilities" (Emerson, 1995). This definition attempted to shift the focus of the "challenge" to services rather than the problem being located within the individual themselves. Wing (1996) noted that the term challenging behaviour can often be misinterpreted or misapplied, being seen as referring to behaviour that is deliberately awkward and defiant. Cullen (2000) points

out his preference for using the term "interactional challenge", referring to the point that the behaviour is the result of the individuals interacting with their environment.

Any behaviour that poses a problem for services to manage could be considered under the term "challenging behaviour". Many topographies of behaviour are challenging. Hastings and Remington (1994) suggest that the three major forms of challenging behaviour are aggressive/destructive behaviour, self-injurious behaviour and stereotypy. Examples of these behaviours include violence or assault (e.g. hitting, scratching, kicking) or violent threats, damage to the environment (e.g. breaking objects), self-harm (e.g. head banging, eye poking) and repetitive or obsessional behaviour (e.g. preoccupation with a particular activity that limits the person engaging in anything else). Other behaviours usually considered challenging to services can include disruption to others' activities or anti-social behaviour (e.g. continual interruption of others, screaming, shouting etc.). These categories of behaviour can mean that the safety of the person or others is at risk and the use of ordinary community facilities (e.g. shops, leisure activities) may be limited or denied.

Challenging behaviour affects not only the person themselves but also impacts upon other service users and family/carers. Aggression and self-injury are the most frequent reason cited for the breakdown of community placements (Intagliata and Willer, 1982) and a major contributor to stress experienced amongst carers (Pahl and Quine, 1984).

An additional category of behaviour that at first glance may not appear "challenging", as it does not impact on others as much as the other behaviours described, is overly passive behaviour. Using the definition that a behaviour is challenging if it impairs the persons quality of life by limiting their access to ordinary community facilities then overly passive behaviour could be viewed as a challenge to service providers. It could prove a challenge to services if a person was withdrawn, non-compliant or extremely passive to aid the person to gain access to activities and community facilities.

Emerson (1998) described three important aspects of challenging behaviour. First, challenging behaviours are defined by their impact and their causes and topography will vary. Secondly, challenging behaviour is a social construction (what is defined as challenging may vary between settings and cultures). Finally, challenging behaviours have wide ranging personal and social consequences for the client, family, staff, carers and others (some secondary responses from others noted by Emerson (1998) include abuse, inappropriate treatment, exclusion, deprivation and systematic neglect). Emerson, Toogood, Mansell, Barrett, Bell, Cummings and McCool (1987) suggested that the challenge is to overcome service inadequacies by arranging for people to be supported and to establish services that will respond to their future needs.

Prevalence of Challenging Behaviour

Since challenge is defined through its damaging effects, an indefinitely large, undefinable list of behaviours may be classified as challenging (Fleming and Kroese, 1993). Behaviours reported as challenging can range from scratching, non-compliance, teeth grinding to inappropriate sexual behaviour and aggression. A participant in a study by Heyman, Swain and Gillman (1998) which explored staff's views about challenging behaviour reported that the participant might regard the telephone ringing as challenging behaviour if he was too busy to answer it. Lowe and Felce (1995) found that carers and families supporting people in the community found more behaviours challenging compared to hospital staff.

Different interpretations of the term challenging behaviour have a major impact on prevalence figures because those behaviours that challenge some services are accepted by others (Cullen, 2000). In a community study Hill and Bruininks (1984) showed that up to half of their clients with a learning disability engaged in some form of challenging behaviour, whereas Emerson (1998) reported that 10-15% of people supported by learning disability services display behaviour that presents serious management problems. The figure probably occurs somewhere between these two estimates. Cullen (2000) reported that in 1993 the Department of Health commissioned Professor Mansell to summarise what was then known about challenging behaviour and his team suggested the point prevalence of behaviours that present a significant challenge to be

in the order of 20 adults with a learning disability per 100,000 of the whole population. This also matches the figure suggested by Qureshi (1993) who reported in a district of 220,000 the number of adults and children with challenging behaviour is likely to be between 31 and 56.

Figures of challenging behaviour are also affected by factors such as the socio-economic and demographic characteristics of the area, the residential location and whether there is a hospital for people with learning disabilities in the location. Emerson (1998) reported that being male, aged between 15 and 35 year old, having severe learning disabilities, having additional sensory impairments and having particular syndromes (e.g. autism, Lesch Nyan syndrome) all are related to the likelihood of a higher prevalence and multiple forms of challenging behaviour.

Service provision for people with challenging behaviour

Service provision has changed for people with learning disabilities as a result of many factors, including changing legislation, changing service practices and wider changes in society. In the past people with learning disabilities were largely segregated from the community in institutions. With the establishment of the National Health Service (NHS) in 1948 institutions became hospitals, so people with learning disabilities became patients with health problems. From the 1960's to the 1980's alternatives to institutions were advocated and with Government-sponsored committees becoming increasingly influenced by the ideas of normalisation (O'Brien and Tyne, 1981; Wolfensberger, 1972) there was an emphasis on the integration of people with learning disabilities into local communities.

Changes in service provision for people with learning disabilities (e.g. the transfer from hospital to community settings) has meant both health and social care staff now share the goal of supporting people with learning disabilities in the community and the day-to day support of people with learning disabilities has changed from largely being the remit of health professionals to that of social care staff. Learning disability hospitals catered for people with learning disabilities, often with complex needs and challenging behaviours. As the move to community care came about often the less complex and less

challenging clients were placed first but with the closure of institutions the remaining clients (often with more support needs or more problematic behaviour) are being placed in residential services. As a result of this paid care staff are now expected to support people with learning disabilities with an increasing range of challenging behaviours (Hill and Bruinincks, 1984).

The need to recognise the role that services may have in ameliorating and maintaining challenging behaviour has become even more important with the changes in service provision for people with learning disabilities (e.g. McGill and Mansell, 1995; McKenzie, McIntyre, Matheson and Murray, 1999). McKenzie et al. (1999) note that with this change in service provision there has come an increasing recognition of the complexity of the influences on challenging behaviour and in particular increasing emphasis has been placed on the role of those who support people with learning disabilities. There has been an increasing awareness that the attitudes, knowledge and behaviour of social care and health professionals can directly impinge on the expression of challenging behaviour (McKenzie et al., 1999). The impact of the attitudes, knowledge and behaviour of carers on the expression of challenging behaviour is discussed in more detail later.

Models of Challenging Behaviour

Thurman (1997) noted that the term challenging behaviour implicitly acknowledges that the behaviour has a function for the individual in expressing an unmet need. Behaviour can be challenging for a variety of reasons. This may reflect features of individuals or environments. As people with a learning disability by definition have difficulties in adaptive functioning and have significant intellectual impairments they, therefore, potentially have a more limited repertoire of behaviour or communication available to ensure that their needs are met. Many behaviours that are challenging to others can be viewed as an attempt by the person to express or communicate something or to gain access or escape from something. Some of the theories of challenging behaviour are discussed below.

A large number of studies have been undertaken in an attempt to understand challenging behaviours (Emerson, 1995) and a number of models and theories have been proposed. Most of this work has focussed on behavioural or neurobiological paradigms.

Behavioural Models

The dominant behavioural approach has been to view challenging behaviour as an example of operant behaviour where challenging behaviour is seen as functional and adaptive (Emerson, 1998). Central to the behavioural approach are concepts of functional relationships, contextual control and dynamic systems of behaviour. Clements (1997) reported that one of the great strengths of behavioural analysis was that it demonstrated beyond doubt that the behaviour of people with learning disabilities, even in its most disturbed forms, could be understood in terms of such normal variables as reinforcement and punishment contingencies and their associated discriminative stimuli. Emerson and Bromley (1995) noted that ample research has demonstrated that behaviours such as self-injury are maintained by contingencies of positive reinforcement including contingent access to the social attention of carers (Iwata, Dorsey, Slifer, Bauman, and Richman, 1982), materials or activities (Durand and Crimmins, 1988) and perceptual reinforcers (Iwata et al., 1982) or negative reinforcement including escape from task related demands (Iwata et al., 1982).

Hastings (1995) reported that over the past two decades there has been growing support for the hypothesis that challenging behaviours are, in large part, social behaviours. A significant proportion of challenging behaviours function to attain or escape socially mediated reinforcement. One study found that 72% of clients' challenging behaviour were maintained by attention or escape (Derby, Wacker, Sasso, Steege, Northup, Cigrand and Asmus, 1992). As behaviour can be social in nature, the influence of others can be a factor. The relationship between social contact and challenging behaviour is complex. Oliver (1991) noted that the attention of other people in the environment is often implicated in the maintenance of challenging behaviour. Hastings and Remington (1994) note that increased staff attention may reinforce challenging behaviour while decreased contact may lead to increased self-stimulatory activities (stereotypy or self-injury), however, increased contact can also be counter-

habilitative if the quality of staff interactions are poor. Hile and Walbran (1991) have also noted that increased staff contact can be unhelpful if they do not contribute to the individual learning more adaptive ways of expressing their needs.

Neurobiological models

Neurobiological theories of challenging behaviour have focussed on the role of neurotransmitters in modulating behaviour (e.g. dopamine, serotonin and endorphin). Emerson (1995) reports that neurobiological processes may be important in maintaining the challenging behaviour of some people. For example, Schroeder and Tessel (1994) reported that abnormalities in the dopaminergic receptor system may be implicated in some forms of self-injury. They also suggest some evidence supporting a link between serotonin and aggression. Cataldo and Harris (1982) have suggested that behaviour may be maintained because it leads to the release of opiate-like substances. It has been suggested that self-injury leads to the release of beta-endorphin which, through its analgesic and euphoria inducing properties acts as an automatic reinforcer (Sandman and Hetrick, 1995).

Medical Models

Challenging behaviour can be a symptom of an underlying medical disorder. For example self-injury is associated with some medical conditions, most notably Lesch-Nyhan and Cornelia de Lange syndromes (Cataldo and Harris, 1982). It has also been suggested that self-injury may occur as a component of frontal lobe epilepsy (Gedye, 1989) or in response to pain from untreated medical disorders (Gunsett, Mulick, Fernals and Martin, 1989). Challenging behaviour has also been shown to be related to other factors such as physical illness (Peine, Darvish, Adams, Blakelock, Jenson, and Osborne, 1995) and mental illness (Mace and Mauk, 1995).

Maintenance of challenging behaviour

The evidence also highlights a further complexity of challenging behaviour, as the factors maintaining the behaviour may not be the same as those originally causing the challenging behaviour. Emerson (1998) reports that the factors maintaining challenging behaviour are likely to be dissimilar across individuals, even for similar forms of

behaviour; maintaining factors may vary over time; may vary across different forms of challenging behaviour shown by the same individual; may vary across settings or contexts and may be controlled by more than one reinforcement category. Emerson and Bromley (1995) also suggest that topographically similar behaviours may, within the same individual, serve different functions and that the functional characteristics of the same behaviour may vary across contexts.

Summary of models of challenging behaviour

In summary, there are a variety of models promoted for the occurrence and maintenance of challenging behaviours including behavioural, neurobiological and medical. Emerson (1998) reports that evidence suggests that many examples of challenging behaviours are maintained by behavioural processes and neurobiological processes may be important in maintaining the behaviour of some people. Maintaining factors may be different to the original causes.

Working with clients that challenge

The implication that many challenging behaviours are social in nature are that they affect and are affected by other people (Hastings, 1995). The way that staff interact with people with challenging behaviour is an important contributory factor in the development and maintenance of behaviour.

Hastings (1995) notes that unfortunately staff behaviour research has identified actions that are likely to encourage the emergence and continuation of challenging behaviours. Staff often appear to be more concerned with reducing challenging behaviours than understanding them. It has been shown that care staff spend a greater proportion of time interacting with clients who have the most seriously challenging behaviours (Duker, Boonekamp, Brummelhuis, Hermans, van Leewe and Seys, 1989), and this does not seem to arise purely from the fact that time is spent coping with disruptions resulting from such actions (Emerson, Beasley, Offord and Mansell, 1992).

Hastings, Remington and Hopper (1995) cite various self-report studies that indicate that staff report that they respond differentially to the type of challenging behaviours

they have to deal with. Behaviours that are potentially physically damaging (e.g. aggression and severe self-injury) elicit more frequent responses from staff than other challenging behaviours (e.g. Maurice and Trudel, 1982; Hill and Bruininks, 1984). Hastings et al., (1995) report that these findings raise concerns as staff appear to provide relatively high levels of attention contingent on the occurrence of challenging behaviour, despite the fact that attention has been identified as a positive reinforcer.

Staff may also act in ways that select more intense challenging behaviours (by responding only to crises more damaging behaviours may be differentially reinforced) (Hastings et al., 1995). In addition Hastings (1996) reports that socially acceptable actions that are functionally equivalent to challenging behaviours are unlikely to receive sufficient response from staff to enable them to compete successfully against challenging behaviours.

There has been relatively little consideration in the literature of why staff behave in the ways that they do. One factor that has begun to be reported in the literature is staff's emotional responses and beliefs about the causes of behaviour (e.g. Hastings, 1995; Hastings et al., 1995).

Demands on care staff and the emotional dimensions of working with challenging behaviour

Care staff often need to intervene physically in order to manage episodes of challenging behaviour or are sometimes on the receiving end of assault themselves. Staff working in community learning disability services are more likely to be victims of assault than staff working in alternative jobs (such as heating engineers or in self-employed business) (McKenzie, Simpson, Matheson, Murray and Paxton, 1999; Harris, 1993). Prevalence rates of assault have been reported by Harris (1993) to vary between 9.7% in day service to 38.2% in hospitals. Emerson, Cummings, Barrett, Hughes, McCool and Toogood (1988) report that carers are the major target of aggression which includes scratching, punching, kicking and biting. Nine service users identified in the Bromley and Emerson (1995) study had caused injuries to staff members sufficient enough to cause impairment of functioning for a few days or more.

Not surprisingly, staff consistently report that being on the receiving end of behaviours such as assault or destruction elicits various negative emotions and many studies have shown that challenging behaviour may produce a number of emotional reactions amongst staff (e.g. Hastings, 1993; Hastings and Remington, 1994; Bromley and Emerson, 1995). For example, staff in Hastings (1995) study reported that challenging behaviour (aggression, self-injury and stereotyped behaviour) elicited responses including fear, irritation, anger and disgust. Similarly Bromley and Emerson (1995) found care staff typically experienced a range of emotional reactions to aggressive, self-injurious and destructive behaviour (e.g. annoyance, anger, fear, sadness and despair). The emotional response varied according to the topography (e.g. responded with annoyance (41%), anger (24%) and fear (19%) to aggression and sadness (38%), despair (32%) and disgust (15%) to self-injury). They also found that staff found the "daily grind" of caring, difficulty in understanding the person's behaviour and the unpredictability of challenging behaviour to be stressful.

Implications of emotional response to challenging behaviours
Working with people who display challenging behaviour on a regular and frequent basis can create a stressful environment for staff to work in. Strong emotional reactions (like anger or fear noted above) may set the occasion for staff acting to terminate an individual's challenging behaviour as soon as possible and may lead to subsequent staff avoidance of those situations or conditions (e.g. Carr, Taylor and Robinson, 1991). Such short-term strategies as attempting to terminate the challenging behaviour as quickly as possible (e.g. by removing demands or providing attention) may be problematic as they may then lead to more long term maintenance of the behaviour. Attribution theory (discussed in more detail later) postulates that feelings will lead to specific behaviour towards that person (e.g. Chavira, Lopez, Blacher and Shapiro, 2000 suggested that angry feelings will be related to harsh reactions such as yelling and hitting in parents).

The belief systems are also likely to influence the perceived appropriateness of alternative courses of action (e.g. Hastings and Remington, 1994) and may impede the delivery of effective support by undermining treatment plans. Bromley and Emerson

(1995) also reported that a subsequent analysis of their data suggested that increased emotional responding by staff was a significant predictor of the receipt of medication, written behavioural programmes and contact with primary care and community teams.

Cottle, Kuipers, Murphy and Oakes (1995) discussed that incidents of violence can alter the caring relationship by introducing anxiety, expressed emotion and attributions which could all affect quality of care and likelihood of future incidents. Whittington and Wykes (1989) found that victims of assault in hospital tend to react differently. There is evidence of high anxiety and post traumatic stress disorder (PTSD) in some individuals following assault. Caldwell (1992) found that traumatically stressful events occurred frequently among staff in a psychiatric hospital and staff reported a high rate of PTSD related symptoms. Expressed emotion by carers may have a major effect on the well being of people they care for.

Strong emotional reactions from those on the receiving end of challenging behaviour are not only distressing for the carers to experience but they also place the individual at risk by possible leading to harsh behavioural reactions from staff (e.g. staff anger could elicit more punitive strategies for the person displaying the challenging behaviour). People with severe learning disabilities and challenging behaviours are at significantly greater risk of being physically abused by service workers (Rusch, Hall and Griffin, 1986).

Summary of staff responses to challenging behaviour
In summary, staff working with clients that exhibit challenging behaviour are at risk of assault and staff working with such clients typically experience a range of negative emotions. Working with clients that display challenging behaviour can create a stressful environment and staff tend to act to try and terminate an individual's behaviour and avoid future incidents happening again. This can lead to long term maintenance of the behaviour.

<u>Beliefs amongst care staff on the causes of challenging behaviour</u>

Hastings et al. (1995) note that there is an assumption in challenging behaviour literature and in training that beliefs about the causes of challenging behaviour can play a central role in determining what people do about it. Interventions are based on hypotheses about the causes of the behaviour (Emerson, 1995). For example, if a behaviour were hypothesised to be functional in gaining staff attention, a possible intervention would be to try to teach the person an alternative method to gain attention while ignoring incidents of the challenging behaviour. Alternatively if the same behaviour was hypothesised to be caused by boredom the resulting intervention may be to try and increase enjoyable activity and stimulation for the person. Therefore, the hypothesised cause of the behaviour is of central importance in deciding on an appropriate intervention. Bromley and Emerson (1995) note that both the extent and nature of the emotional reactions of staff to episodes of challenging behaviour and the belief systems employed by staff to understand the phenomena of challenging behaviour are of obvious importance.

Care staff usually offer a variety of explanations for challenging behaviour (e.g. Bromley and Emerson, 1995; Heyman et al., 1998; Hastings, 1995). Most of the research in this area has asked care staff to offer explanations or possible reasons for a particular challenging behaviour occurring. The methodology has varied between researchers. Some have provided questionnaires with case vignettes of challenging behaviour and asked participants to rate potential causes from "very likely" to "very unlikely" (e.g. Hastings et al., 1995), used questionnaires with case vignettes and asked open-ended questions (e.g. Hastings, 1996), used interviews and questionnaires regarding challenging behaviour on a known client (e.g. Bromley and Emerson, 1995) or used a semi-structured interview to elicit staff views (e.g. Hastings, 1995). Some scales have also been developed to measure staff perceptions of challenging behaviour. Hastings (1997) developed the Challenging Behaviour Attributions Scale (CHABA) which asks participants to rate the likelihood that each of the 39-items (related to five causal models) applied to the described behaviour. The common factor shared by all methods is eliciting what staff feel is the reason for the behaviour occurring whether it is by rating on a scale or providing their own response.

Explanations offered by staff for challenging behaviour, using the above methodologies, usually include personalistic, situational, interpersonal and transactional explanations including factors like the person's mood, pre-menstrual tension, a response to stress or as a form of communication (e.g. Heyman et al., 1995; Hastings, 1995; Bromley and Emerson, 1995; Hastings et al., 1995). Many explanations offered by staff locate the problem within the service user and staff generally avoid interpersonal explanations which reference their own actions (Heyman et al., 1995). In the Bromley and Emerson (1995) study staff reported that challenging behaviour occurred because "he/she wants something", being "manipulative" and "likes to get attention". These explanations point to the factors inherent in the person rather than deficits in services.

The influence of beliefs on intervention

The belief systems held by staff are also likely to influence the perceived appropriateness of alternative courses of action. Hastings and Remington (1994) suggested that inappropriate care staff beliefs about the causes of challenging behaviour will probably result in the adoption of inappropriate interventions and strategies. For example, Bromley and Emerson (1995) reported that programmes based upon the notion of "positive programming" (a model developed by La Vigna and Donnellan in 1986 that determines the function of the behaviour and attempts to replace that behaviour with alternative, constructive behaviour to achieve the same function) may not be implemented effectively if the person's challenging behaviours are elicited by the staff approach, generate fear and are considered by staff to be a manifestation of an underlying medical disorder.

Bromley and Emerson's (1995) study showed that the most commonly held beliefs about the causes of challenging behaviour concerned very general factors over which staff may feel they have little control (e.g. the person's internal state or mood) and beliefs concerning causal factors over which staff may exercise some control (e.g. environment, reinforcement) are much less prevalent. They also cite in this paper that this has considerable implications for staff morale and quality of services if staff believe challenging behaviours to be caused by factors beyond their control.

<u>Summary of beliefs about challenging behaviour and intervention</u>

In summary, research has indicated that many explanations offered by staff locate the problem within the client and often concern general factors over which staff have little control. Staff do not often provide explanations that reference their own actions or concern factors over which they may have more control. Beliefs about the cause of challenging behaviour can determine what staff do and how appropriate they view different interventions.

As already described working with challenging behaviour usually elicits various (usually negative) emotions in carers and services can be stressful environments to work in. The following section discusses stress and specific stresses regarding working with challenging behaviour.

<u>Stress</u>

The term stress is used to describe the process which occurs when people find themselves unable to deal adequately with the demands made upon them (Payne, 1999). Payne (1999) described stress as referring to a process which involves some things that cause or precipitate individuals to think they are unable to cope with the situation that faces them. Resulting feelings can include anxiety, tension, frustration and anger, which arise from the recognition that they are failing in some way and the situation is getting out of their control. Lazarus and Folkman (1984) developed a psychological model of stress that highlighted the importance of the person's role in appraising the situation, which is what ultimately determines whether the situation is actually a stressor. Many variables influence stress. Payne (1999) reported that stress is best predicted by high demands, low control and poor support.

<u>Stress in the human service field</u>

Staff members in the human service field spend a great deal of time in intense interaction with other people. Stress can arise from this intense involvement and chronic stress can lead to burnout (Caton, Grossnickle, Cope, Long and Mitchell, 1988). As the human service field is primarily a "people" job and burnout is more prevalent

when people work with people it is not surprising that a certain amount of burnout is present among these workers.

Stress in learning disability services

Care work in learning disability services has long been seen to be a stressful occupation (Colligan, Smith and Hurrell, 1997) and the literature in this area is growing. Rose (1995) reported that staff working with people who have learning disabilities appear to be moderately stressed. Sources of stress identified in studies of staff in learning disability services can be classified as within the person (e.g. anxiety and health), related to service users (e.g. challenging behaviour) or organisational characteristics (e.g. social support, work load, job variety, income etc.). Previous research has found a number of sources of stress including lack of management support (Sutherland and Cooper, 1990), lack of social support (Hatton and Emerson, 1993), lack of resources (Sutherland and Cooper, 1990), lack of control (Corrigan, 1993) and challenging behaviour (Rose, 1993; Sutherland and Cooper, 1990; George and Baumeister, 1981). Corr (1999) reported that a further factor that may add to staff stress is that usually there is relatively few or slower positive outcomes from staff efforts when working with learning disabled clients.

Client Characteristics and Stress

Client characteristics are often cited as a source of stress. Particular stresses include managing challenging behaviour. As reported earlier challenging behaviours are aversive to some staff (e.g. Bromley and Emerson, 1995; Hastings and Remington, 1994) and various researchers have found staff reactions such as anger, annoyance, fear and disgust in response to challenging behaviour. Poster and Ryan (1993) also have shown that staff responses to witnessing or being the target of aggression include depression, sadness, anger, anxiety and disbelief.

Experiencing negative emotions on a regular and frequent basis can be stressful. Jenkins, Rose and Lovell (1997) observed that staff working with residents who displayed challenging behaviour appeared to be more stressed than staff that did not work with them. Hatton, Brown, Caine and Emerson (1995) found that high levels of

perceived work stress were associated with high ratings of the stressful nature of the personal emotional impact of the work and violent service user behaviour. The risk of exposure to violence itself has been found to be related to high levels of staff turnover and burnout (Attwood and Joachim, 1994). George and Baumeister (1981) found that lack of resident progress and the occurrence of challenging behaviours were associated with staff dissatisfaction and turnover. Hastings (1995) also reported that staff in their study appeared to recognise that their emotional reactions influenced their behaviour.

In addition to the negative emotions experienced when dealing with challenging behaviour other factors also cause staff stress. Dawson, Johnston, Kehlayan, Kyano and Martinez (1988) found that some staff on the receiving end of assault will go through a role conflict of carer and victim. Another study has shown that unpredictability, hopelessness and inability to understand client's behaviour were significantly greater stressors than the person injuring themselves or others (Bromley and Emerson, 1995). A perception that little can be done to change the person's behaviour was also one of the most significant stressors identified by staff in the Bromley and Emerson (1995) study. They report that these are suggestive of a process of burnout and consistent with emotional responding.

Weiner's attributional model of helping behaviour (1986) suggests that attributions (beliefs) about challenging behaviour can exert a crucial effect on helping behaviour. In Weiner's (1986) model (cited in Dagnan, Trower and Smith, 1998) experiencing emotions such as anger leads to not offering help. However, for paid carers (the majority of social care staff) the option not to help or not to interact is constrained; thus for paid carers anger may affect behaviour differently (and may cause staff increased stress).

Other staff and the impact of support on stress

As noted earlier there are a number of sources of stress in learning disability services, not all of them client related. Rose, Jones and Fletcher (1998) report that other staff can be seen as significant stressors, particularly if the staff team is not functioning properly.

However, conversely other staff can be a support and a mediator of stress. Isolation from other workers can be a source of stress (Rose, 1993) and a well functioning team may be important in helping staff to cope. Rose (1997) reports that a frequent finding is that care staff cite support from other staff and their manager as important mediators of stress. Work looking at the levels of social support has found that there was a highly significant correlation between support and lower levels of stress (Harris and Thomson, 1993). Recent work also indicated that external professionals such as psychologists, psychiatrists, occupational therapists and so on may also have an important role in supporting staff (Rose, 1996, cited in Rose, 1997).

<u>Organisational characteristics and stress</u>

Some research has highlighted difficulties with the organisation of work as sources of stress. Staff in community learning disability services often report they have a poorly defined role (e.g. Allen, Pahl and Quine, 1990; Rose, 1993) which may lead to role ambiguity, which has been shown to be associated with stress (Kahn, Rolfe, Quinn, Snoek and Rosenthal, 1964). Other studies suggest shift work and conflict between home and work can be an important stressor (Rose, 1993; Hatton et al., 1995). Workload and pressure from management are also sometimes cited as stressors (Allen et al., 1990).

Work satisfaction has been shown to be related to stress (e.g. George and Baumeister, 1981). It has been suggested in one study that factors which cause stress are related to the propensity of staff to leave the service (Allen and Greenberger, 1980). Another study showed that organisational commitment was more important than job satisfaction in predicting who would leave a service (Porter et al., 1974). Absenteeism has also been shown in some studies to be linked to burnout associated with work stress (e.g. Maslach, 1982; Lawson and O'Brien, 1994).

Individual staff characteristics and stress

Hatton et al. (1995) summarise that the relationship between potential stressors (e.g. life events, work situations) and their outcomes in terms of personal distress or well-being is not a direct one. People appraise potentially stressful situations in terms of whether it is a threat (i.e. the person does not have the resources to change the situation for the better) or a challenge (i.e. the person has the resources to be able to improve the situation). They note that on the basis of these appraisals, people use different coping strategies (problem-focused and emotion-focused). Some research has provided evidence for relationships between sources of stress, coping strategies and outcomes such as distress (Thompson, 1987). Hatton et al. (1995) found that the role of coping strategies mediated between potential stressors and stress-related outcomes. They found a robust link between wishful thinking coping and stress.

Stanley and Standen (2000) propose that carers need to develop a range of positive interpersonal skills and control undesirable qualities such as temper and retaliation when working with people with challenging behaviour. They suggest that experienced carers are basically sympathetic and develop personal controls to curb anger, disapproval or neglect of clients. When these controls break down we witness occupational stress (Amirkhan, 1990) or burnout (Caton et al., 1988). This implies that care staff need to develop some form of coping strategy that curbs their anger and controls temper.

Measurement of Stress

A major methodological problem in the stress literature is that the effects of stress are measured in many different ways including job satisfaction, mental health, sickness-absence, tension, tiredness, depression, burnout or PTSD (Baldwin, 1999).

Payne (1999) reported that feelings are probably the first and foremost powerful indicator of the presence of stress. As stress is prolonged the feelings may turn into relatively enduring mood states (anxiety and depression). Many studies measure stress by investigating mood states such as anxiety or depression. The General Health Questionnaire (GHQ-28) (Goldeberg and Hillier, 1979), a self-report measure, is often

used to measure stress in studies (e.g. West and Rushton, 1986; Baldwin et al., 1998). Other scales cited in studies of stress (e.g. Rose, 1995) include the Thoughts and Feelings Index (Fletcher, 1989) which assess anxiety and depression. The problem with relying on measurements of symptoms such as anxiety or depression are that they are influenced by variables outside the workplace (e.g. life events such as bereavement, relationship difficulties, personality factors, trauma etc.) and as such are not very good measures of stress per se. They are clearly an aspect of measurement, as prolonged stress can result in an enduring mood state, but not in isolation.

An individuals' perception and appraisal of stressful events are also central and essential elements within models of stress (Folkman and Lazarus, 1985). An individual is clearly in the best position to respond to those situations they perceive to be stressful and self-report of stress in situations can provide a further measure of stress. Many studies investigating the emotional impact and stressful nature of work with challenging behaviour have used open-ended questions asking participants to identify general issues which they believe contribute to the levels of stress they experience (e.g. Bromley and Emerson, 1995) or interviews asking open-ended questions regarding what stresses were associated with working with people with challenging behaviour (e.g. Hastings, 1995).

A further factor that has been discussed as a potential mediator of stress is social support. Rose et al. (1998) found that staff in "high stress" homes reported less support than those in "low stress" homes implying that social support acts as some kind of buffer to stress.

Some studies use staff turnover as an objective measure of job stress, but as Sharrard (1990) highlights it is necessary to look at this closely as increased stress does not necessarily mean increased turnover. Allen et al. (1990) found that factors which caused stress in group homes were related to the propensity of the staff to leave the service.

It can be seen that measuring stress is problematic and reliance on any one measure will not give the full picture. In the present research a measure of stress was designed that incorporated all of the above factors.

Summary of Stress and Coping in Learning Disability Services

In summary, care work in learning disabilities has often been reported to be stressful. There have been a number of potential sources of stress for staff identified in the literature including client characteristics, problems with other staff and organisational characteristics. The way in which staff cope with stress has been identified as an important mediator between potential stressors and stress related outcomes. Some coping strategies identified in the literature have included social support and a problem-focused coping style. Measurement of stress has been reported to be problematic and measures should incorporate all of the relevant factors discussed.

It was discussed earlier that beliefs about behaviour were important factors to consider when investigating interventions and emotional reactions to challenging behaviour. Attribution theory is explored in the following section as an area of importance when investigating staff beliefs.

Attribution Theory

Recent research has shown that attempts to account for the nature of staff responses to challenging behaviour have identified staff attributions and beliefs as sources of influence (Emerson et al., 1994; Hastings and Remington, 1994; Hastings et al., 1995). Dunne (1994) also suggested how elements of Heider's (1958) theory of causal attributions could help to explain why interventions for challenging behaviour might fail, due to the attributional biases of care staff.

Attribution theory (e.g. Heider, 1958) is concerned with the explanations people make of behaviour. An attribution is an expression of the way a person thinks about the relationship between a cause and an outcome (Munton, Silvester, Stratton and Hanks, 1999). Attributions can help us understand what causes people to behave in the way that they do. An important aspect of attributions about other people's needs or

distressing behaviour is that they can exert a significant effect on helping responses. There is evidence that people's beliefs are moderately good predictors of their behaviour (Ajzen and Fishbein, 1977).

Attribution theory has allowed psychologists to investigate how people explain what happens to them and what follows after. Heider (1958) proposes that attributions can be formulated along certain dimensions. Each dimension provides information about different aspects of a causal belief. Rating an attribution on different dimensions enables us to make accurate predictions concerning how a belief about causality is likely to influence behaviour (Munton et al., 1999). Not all researchers use the same dimensions or definitions to describe causal beliefs, which is a problem when comparing studies. Munton et al. (1999) carried out a detailed examination of the different attributional dimensions and definitions used and proposed four dimensions broadly representative of the diverse collection found in the literature. These dimensions are: internal- external; controllable- uncontrollable; stable- unstable and global- specific. Each of these will be discussed in detail.

Attributional Dimensions

Internality

Heider (1958) was originally interested in phenomenal causality and first described the internal- external dimension. This dimension concerns the origin of a cause. Internal causes come from within the person. External causes are found in the person's surrounding environment. Heider also introduced the idea of intentionality. Any action being observed, he claimed, could only be attributed to an internal cause if it could be at the same time assumed that the person being observed intended to behave in that way. If the person was merely reacting to a particular set of circumstances then we should assume that the cause was external (cited in Munton et al., 1999). Jones and Davis (1965) further developed Heider's ideas and developed a theory of correspondent inferences, which is concerned with the ways in which people come up with explanations for each other's behaviour. They believed that attributing someone's behaviour to an internal cause is the same as attributing the person's behaviour to a disposition or personality characteristic. Making an external attribution involves identifying the cause

of the behaviour as some aspect of the situation or environment (Munton et al., 1999). Kelley (1973) discussed that people look for three different types of information (consistency, distinctiveness and consensus) when deciding on attributing someone's behaviour to internal or external causes. According to this definition an attribution would be made as internal when the person being observed has a record of the behaviour, when these circumstances always elicit the same behaviour and when no-one else would be expected to behave in the same way.

Controllability

The controllable-uncontrollable dimension is rooted in the idea of locus of control and concerns whether an individual is rated to have had control or not over a particular situation. Locus of control was first noted by Rotter (1966) who reported this dimension as whether actions are due to one's own behaviour (controllable) or from external factors (uncontrollable). According to Weiner (cited again in Munton et al., 1999) attributions concerning control have some influence over emotional reactions to success or failure. If the person is believed to have had some influence over the link, the cause or the outcome the attribution is rated as controllable (Munton et al., 1999).

Stability

The stable-unstable dimension originates from Weiner's attribution theory (1986) and is used to predict the extent to which people will expect to be successful in future tasks. Rating on this dimension involves looking at the cause element of the attribution. If the cause is believed to be unlikely to change in the future then it is rated as stable, however, if the event occurred because of some temporary state of affairs, the cause is rated as unstable.

Specificity

The global-specific dimension was developed as part of the reformulated learned helplessness model of depression (Munton et al., 1999). Abramson, Seligman and Teasdale (1978) developed a learned helplessness model of depression that incorporated the principles of attribution theory. They found that many people with depression blamed themselves for having failed in some aspect of their lives and often

had an internal locus of control for these failures. They also found that having experienced failure in one specific arena people with depression typically develop a generalised belief that everything they do will fail (global attribution). Rating on this global-specific dimension reflects the extent to which someone believes that a cause will influence outcomes other than the one identified in the attribution. Global attributions usually refer to generalised beliefs that are likely to have an impact on a wide range of different situations versus those rated as specific will only influence a small range of situations and is specific to a particular area of life or situation.

Measurement of Attributions

Attributions, like stress, can be measured by a variety of methods. In the learning disability field studies with staff or carers have used various methodologies to measure attributions. These include using case vignettes (Hastings et al, 1995; Hastings, 1996), examples of behaviour or using known "target" patients (Sharrock, Day, Qazi and Brewin, 1990), accessing attributions using direct interviews with care staff (e.g. Hastings, 1995), open-ended questions requiring written responses (Berryman, Evans and Kalbag, 1994), questionnaire rating scales (e.g. Hastings et al., 1995) and multiple choice questions (Oliver, Hall, Hales and Head, 1996).

Scales have also been used. One scale often cited in studies is the Attributional Style Questionnaire (Peterson and Villanova, 1982). In this questionnaire participants are given 6 good and bad hypothetical events and asked to write "one major cause" of each event and rate on 7-point scales according to internality, stability and globality. It has been shown to be reliable in explaining individuals' own behaviour (Peterson and Villanova, 1982) and has been modified to code behaviour by staff (Sharrock et al., 1990; Cottle et al., 1995; Dagnan et al., 1998). As reported earlier, Hastings (1997) developed the Challenging Behaviour Attributions Scale (CHABA) which is a self completion rating scale that measures staff causal models of challenging behaviour consisting of 33 items relating to 5 causal models (learned behaviour, medical/biological factors, emotional factors, aspects of the physical environment and self-stimulation).

Many of the studies cited have only considered a small proportion of behaviours considered challenging (e.g. Hastings et al., 1995 and Hastings, 1996 looked at responses to aggression, self-injury and stereotyped behaviour). No known studies have been conducted investigating the main six topographies of behaviour described earlier (aggression, self-injury, destructiveness, disruption, stereotypy and passivity).

<u>Summary of attribution theory and measurement</u>

In summary, attribution theory is concerned with the explanations people make of behaviour. Attributions can help us understand what causes people to behave in the way that they do. Attributions can be formulated along four main dimensions of internality, controllability, stability and specificity and can be measured in various ways from open-ended questioning to rating on scales.

<u>Attribution theory in helping behaviour</u>

Weiner (1980, 1986) looked at attribution theory in relation to helping behaviour. When attributions of a distressing event (e.g. falling over) are made to factors which are controllable by that person (e.g. being drunk) negative feelings lead to avoidance rather than help (Weiner, 1980; Schmidt and Weiner, 1988). Smithson, Amato and Pearce (1983) cited in Sharrock et al. (1990) reported that studies of helping behaviour have for the most part ignored the behaviour of helping professionals. Only a few studies have been conducted to date. Brewin (1984) found that medical students were more willing to engage in helping behaviour (prescribing medication) when patient's life events were regarded as uncontrollable rather than controllable.

Some studies have been conducted applying attribution theory to parental behaviour (e.g. Dix, Ruble and Zambarano, 1989; Bugental, Blue and Cruzcosa, 1989; Chavira et al., 2000). Parents in these studies that believe their child was responsible for misbehaviour (in control) were likely to report feeling angry and expressing negative affect. Bugental et al. (1989) found that mothers' attributions of control were not only predictive of their emotional reactions but of their harsh/ aggressive behavioural reactions. Thus, there is evidence that attributions predict negative affect and harsh behaviour.

Brewin, MacCarthy, Duda and Vaughn (1991) found that attributional models were applicable to families with disabilities. They found that family members' negative emotional reactions were related to beliefs about control toward their family member with schizophrenia.

Sharrock et al. (1990) carried out a study with staff in a unit for mentally disordered offenders. They asked staff to complete various measures in relation to one target patient. Their results showed that staff tended to make internal, controllable, stable and global attributions about the patient. Attributions about unstable factors were associated with higher levels of optimism as they were felt to be changeable and it is probable that this view is associated with greater perceived benefits from helping. Attributions of controllability and stability were negatively related to optimism. Sharrock et al. (1990) concluded that if staff believe that the person intended to behave that way they were less optimistic about intervention.

Cottle et al. (1995) examined how nursing staff felt after a violent incident, their level of expressed emotion and attributions made about the incident. Measures of anxiety were also taken as a measure of coping. They found that staff gave various reasons for their belief about the main cause of a violent incident. At a 1-month follow up staff were more likely to rate the cause of the incident as internal to the client than they did within a week of the incident. This was suggestive of a "hardening of attitude" where staff were increasingly blaming the client. They also found that staff who showed high expressed emotion tended to make more internal and personal attributions about the client.

<u>Attribution theory applied to carers in learning disability services</u>
There is support for an attributional framework for understanding helping behaviour and responses of parents, but there has been relatively little work on the applicability to learning disability clients. Chavira et al. (2000) in a study examining the applicability of attribution theory to mothers of children with learning disabilities, discussed that parents of a child with a learning disability know that he/she suffers from a physical

condition which may lead the parent to conclude that the behaviour is largely due to their condition (and viewed as outside their volitional control). They discuss that if such a position were true one would expect little attributional variability. However, the study by Brewin et al. (1991) showed that attributions played a significant role in determining emotional reaction despite the fact that family members were aware of a person's condition (schizophrenia). Chavira et al. (2000) found by interviewing 149 mothers of children with severe to profound learning disabilities that overall mothers did not tend to perceive their children as being responsible for their behaviour. However, they were more likely to hold their children responsible when the behaviour was an "excess" (e.g. temper tantrum) rather than a "deficit" (e.g. no speech) and mothers that perceived their child as responsible were more likely to report negative emotional reactions and to respond with aggressive behaviour. This study provides evidence supporting an attributional model of caregivers reactions to problem behaviour of children with learning disabilities.

There have been few published studies testing attributional models with carers working in learning disability services. The studies investigating staff beliefs about challenging behaviour (e.g. Hastings, 1995; Hastings and Remington; Hastings et al., 1995; Bromley and Emerson, 1995) obviously assessed attributions to a degree by eliciting categories of causal attributions. Some of these studies had additional questions that addressed concepts such as intentionality. The Hastings (1995) study found by interviewing 19 care staff that the vast majority (74%) thought that challenging behaviour was intentional. He notes that the view that challenging behaviours are mostly intentional seems to be best characterised as a belief that such actions are engaged in to achieve something in particular and clients are aware of the effects of their behaviour. He notes that as a result of this view that clients "know where they are going" they may be blamed for their actions, rather than being understood.

One of the first studies with carers of people with learning disabilities using an attributional model was conducted by Dagnan et al. (1998). They explored Weiner's (1980, 1986) attributional model of helping behaviour as applied to care staff responses to challenging behaviour. Using such models can provide an understanding of staff

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responses to challenging behaviour. According to Weiner (1980, 1986) the attribution of controllability (whether the challenging behaviour is under the person's control) and stability (whether the cause is the same each time) will determine the emotional reactions in the observer and consequently will affect the offer of help. Dagnan et al. (1998) hypothesised that a carer will be more sympathetic and more helpful if the cause of someone's challenging behaviour is seen as outside that person's control. Conversely a carer will be angrier and less helpful if the cause is seen as within the person's control (e.g. seen as "manipulative").

Dagnan et al. (1998) replicated Sharrock et al.'s study (1990) with some methodological changes and using examples of behaviours rather than a known patient. Their study found a significant correlation between the attribution of controllability to the cause of a challenging behaviour, negative emotion, a lower level of optimism and less willingness to offer extra help. The attribution of controllability was also negatively correlated with positive emotion. There was also a significant correlation between attribution of controllability and negative evaluation of the behaviour and the negative evaluation of the person demonstrating a relationship between global person and behaviour evaluations and specific attributional inference. Therefore, if staff infer the client is responsible for their challenging behaviour they blame the client and thus evaluate the client and behaviour negatively. Dagnan et al (1998) showed that staff generalise from behaviour evaluations to whole person evaluations (erroneous and dysfunctional global attribution).

Weiner (1986) argued that it is the underlying structure rather than specific attributions that determine both emotions and behavioural consequences. For example, if a negative outcome is regarded as being under the direct control of another, we are likely to experience emotions such as anger or annoyance. However, if we judge that the individual is not acting deliberately, and in fact lacked any control over the eventual outcome, we experience greater sympathy or understanding and demonstrate positive reactions such as support. Another study has reported findings that offers support for this position. Maurice and Trudel (1982) found that if carers thought that clients

were engaging in self-injury because they were angry they were more likely to use isolation as an intervention.

A recent paper by Stanley and Standen (2000) also applied Weiner's (1986) attributional model of helping to the care of clients presenting with challenging behaviour and identified relationships between attributional dimensions, affects, helping, dependency and topography. They hypothesised that carers' therapeutic commitment or helping will vary according to their causal attributions for the challenging behaviour. Using Weiner's model they predicted that if a carer attributes aggressive behaviour to controllable factors they are more likely to feel angry and may well be more negative regarding treatment interventions. Conversely if the behaviour was considered to be uncontrollable they may experience sympathy or pity increasing their likelihood of helping (Betancourt and Blair, 1992, cited in Stanley and Standen, 2000).

Stanley and Standen (2000) interviewed 50 care staff working in challenging behaviour day services using 6 case studies describing aggressive, self-injurious and destructive behaviour. Staff were asked to rate each behaviour on 7 scales (control; negative affect; positive affect; locus; stability; optimism and helping). They showed the differential effects of topography on dimensional ratings. Control was perceived to be greater with aggressive behaviour than self-injury and greater with independent than dependent functioning. Conversely stability was perceived to be greater with self-injury than aggression or destructiveness and greater with dependent than independent functioning. Positive affect and helping was greater with self-injury and independent functioning and negative affect was greater with aggression and dependent functioning. Their results clearly identified relationships between attributional dimensions, affects, helping and topography. The more independent and outer-directed the client's challenging behaviour the greater the carers' attribution of control, negative affect and the less the propensity to help.

Topographies of Behaviour and Attributions

In summary, carers tend to make differential attributions depending on the behaviour. Aggressive behaviour is more likely to be seen as controllable whereas self-injury is seen as stable and less controllable (e.g. Stanley and Standen, 2000). Chavira et al. (2000) also found that a specific set of behaviours might lead parent to judge their child as being responsible.

Exploratory discriminant analyses in the Bromley and Emerson (1995) study revealed that challenging behaviours which are considered unpredictable are more likely to be attributed to internal medical causes. The more serious challenging behaviours were more likely to be attributed to the person's internal psychological state, while less serious behaviours were more likely to be seen as self-stimulatory. In addition challenging behaviour shown by women tended to be attributed to internal biological causes.

Attributions and Coping

Cottle et al. (1995) report that people's explanations serve different functions and it is believed that certain kinds of attributions lead to better adjustment after an unpleasant incident.

Attributions, Challenging Behaviour and Stress

Spector (1999) noted that feelings of control in general and locus of control in particular are associated with low levels of psychological stress. People experience less negative emotion when they feel in control of their jobs and lives. Situations seen as uncontrollable are perceived as more stressful (Averill, 1973; Thompson, 1981). Locus of control influences people's behavioural reactions when they perceive stressors. Allen and Greenberger (1980) found that individuals who believe they have little control are more likely to resort to counterproductive behaviour in response to job stressors. Perlow and Latham (1993) found that locus of control predicted which employees would be caught abusing learning disabled clients.

<u>Summary of Attribution Theory in relation to Learning Disability Services</u>

To summarise, research has shown that attribution theory can be applied to carers working in learning disability services. There has been evidence from studies with children supporting the view that the more controllable a behaviour is perceived to be the more carers experience negative emotion and the harsher the behaviour of caregivers is. Research in learning disability services has also shown that if staff believe that a client intended to behave in a certain way the staff experienced more negative emotions and were less likely to want to help. There has been some evidence for the differential effect of topography on dimensional ratings.

Recent research has focused on the relationship between attributions and emotion. There has been little research that has considered attributions in relation to stress, particularly in learning disability services. The proposed study hopes to investigate attributions and carer stress.

Earlier discussions have suggested that staff behaviour has a powerful influence on the behaviour of people with learning disabilities. Research has shown that staff often act in ways that are counter-habilitative for clients with challenging behaviours. The significance of staff causal attributions was their possible relationship to staff intervention behaviour. It has been reported that staff making different attributions are likely to respond in different ways to the same incident of challenging behaviour. The learning disabilities field has responded to this problem in two ways: staff behaviour management and staff training (Hastings and Remington, 1994).

Staff Training

<u>Reasons for staff training</u>

Staff in residential and community settings have more contact with clients with challenging behaviour than many professionals designing interventions. Direct care staff are often the agents of change and work "hands on" with clients. The issue of training staff in principles of challenging behaviour and intervention is, therefore, of great importance.

Staff training approaches fit with contemporary behavioural interventions for clients because they base treatment of the problem on a hypothesis about its cause. Hastings and Remington (1994) propose that staff either lack knowledge or skills to do their jobs in appropriate ways. Allen, McDonald, Dunn and Doyle (1997) found that the knowledge base of staff was inadequate and that this can have a negative impact on clients. Staff training has been highlighted by others as one means of improving staff knowledge and shaping staff attitudes (e.g. McKenzie, Paxton, Patrick, Matheson and Murray, 2000).

Further evidence supporting staff training comes from a study comparing experienced and inexperienced staff (Hastings et al., 1995). They hypothesised that if staff training and/or experience affect the way that people view the causes of challenging behaviours, the beliefs of experienced or trained staff should be qualitatively different to those of inexperienced/untrained staff. Evidence from the Hastings et al. (1995) study indicated that inexperienced (98 student nurses) participants perceived the causes of challenging behaviour differently (reported more environmental and emotional causes for behaviour) than an experienced group (148 nursing staff in a learning disabilities institution), who reported more behavioural and communicative functions. They suggested that training and/or experience, therefore, contributes to the development of appropriate beliefs.

Two of the sources of stress cited in the Bromley and Emerson (1995) study were an absence of an effective way of dealing with the behaviour (by 62%) and difficulty in understanding the behaviour (by 55%). These findings also suggest the importance of increasing staff knowledge possibly by training.

<u>Content of training</u>

Hastings et al. (1995) report that professional training and training on challenging behaviours for unqualified care staff often includes a substantial amount of information on models of causation of such behaviour.

Hastings et al. (1995) suggest that there are at least two different models that guide staff intervention for challenging behaviour from beliefs about causes. These are both relevant to training. A "functional approach" (cf. Repp, Felce and Barton, 1988) derives treatments based upon the function of the behaviour (e.g. an intervention for a person displaying self-injurious behaviour to gain attention may consist of ignoring this behaviour and encouraging or teaching more appropriate ways of attaining social contact). The second approach to intervention based on beliefs about causes of challenging behaviour is "needs-based" (Hastings and Remington, 1994) which derives treatments based on needs (e.g. if a person engages in self injury to gain attention then he or she must need attention and it should be provided). Hastings et al. (1995) suggest that there is some support for the notion that staff responses may be needs-based. If this is the case, this has important implications for staff training and management as convincing staff to use behavioural programmes based on the understanding of the causes of behaviour and based on a functional approach presents a significant challenge.

Hastings (1995) notes that behavioural analysis should consider the functions that staff actions are serving for them and base staff management and training on the resulting functional account. Understanding staff beliefs forms part of this functional analysis. Few staff in the Hastings (1996) study indicated that their immediate concern would be to understand the functions of behaviour. Another study has shown that there is an incongruity between staff beliefs about the causes of challenging behaviour and interventions and when staff reported possible interventions they responded to the topography rather than its function (e.g. stop/ control behaviour, restrain), which may indicate a lack of understanding of behavioural methods and theory (Hastings, 1995).

Content of training varies according to workshop leaders theoretical preference. Training approaches are often based, to varying degrees, on behavioural analyses and

interventions strategies (e.g. La Vigna and Donnellan, 1986). Berryman et al. (1994) showed that there were different outcomes in staff beliefs depending on what type of training they had attended.

Changes following training

Change in knowledge following training

McKenzie et al. (1999) noted that previous research has found training to be a valuable avenue for increasing knowledge amongst those working in the field of learning disabilities (Kobe and Mulick, 1995; Nagarajaiah, Chandrashekar and Parthasarathy, 1994; Morch and Eikeseth, 1992; Wilson et al., 1991 and Allen et al., 1997) and have found that training can increase carers knowledge of challenging behaviour. McKenzie et al. (2000) evaluated a one-day introductory training course in challenging behaviour that 59 staff attended. They found that in comparison to a control group the trained group significantly increased their knowledge and potential practice indicated by their written responses to scenarios. They found that the changes were maintained for up to one year after training. Other studies (e.g. Binney, 1992) found workshops significantly increased participant's knowledge level.

Attributional change following training

Attributional change as a result of training concerned with challenging behaviour is a relatively new research topic in learning disabilities (e.g. Berryman et al., 1994; Noone and Iceton, 1995).

Hastings et al. (1995) found that inexperienced carers (with no previous exposure to challenging behaviour) rated the causes of challenging behaviour quite differently than the experienced group which suggests that training and/or experience contributes to the development of appropriate beliefs/change in attribution about such behaviour.

If training using behavioural models such as "positive programming" (La Vigna and Donnellan, 1986) is successful, we might expect staff to place more of an emphasis on causal hypotheses related to positive and negative reinforcement processes and

environmental setting events and we might expect less use of biomedical and psychodynamically derived models (Hastings, 1997).

Some studies have included a measure of attitude in their design (e.g. Berryman et al., 1994; Binney, 1992). Binney (1992) found that following a workshop on stimulation for clients with profound learning disabilities, staff showed an improvement of attitude (more positive attitudes), measured on an attitude scale designed for the study.

Berryman et al. (1994) examined the effects of two different types of training on the understanding and attitudes of direct care staff. They investigated differences between 29 staff attending a non-aversive workshop (focused on the importance of teaching specific replacement skills and a functional alternative to problem behaviour) with 45 staff attending a traditional behavioural training workshop (focused on using positive reinforcement as the primary treatment strategy, with an emphasis on contingency management and the provision of external incentives for more desirable forms of behaviour). They found that training produced noticeable differences in explanations for behaviour and recommended treatment strategies. The group that received the non-aversive training were more likely to attribute behaviour to functions such as escape/avoidance and less likely to attribute to emotions. They also were more likely to suggest interventions based on further functional analysis and teaching new skills and decreased their emphasis on extinction and punishment.

Therefore, the type of training can be seen to affect the outcomes in terms of beliefs and interventions.

There has been little work investigating change in ratings on attributional dimensions (e.g. controllability) following training courses to date.

Change in stress following training

Providing training has also been shown to be important in reducing the stress involved in direct care staff work (Halliday, Potts, Howard and Wright, 1992; Hatton and Emerson, 1993) and is another important aim of some training courses.

Summary of Staff Training

In summary, research has shown that staff often act in ways that are counter-habilitative for clients and there is a relationship between staff beliefs and intervention. Staff training has been advocated as a means of improving staff knowledge and improving attitudes. The content of training depends upon the theoretical orientation of the trainers, however, most of the published literature on staff training reported using information on the causation of behaviour and behavioural interventions strategies. The research reviewed indicated that training increased staff knowledge, changed attributions and can reduce the stress involved in direct care work.

Summary of Research Reviewed

To summarise the research reviewed, large proportions of people with learning disabilities engage in actions that are considered challenging. The term challenging behaviour covers a wide variety of behaviours depending on the observer, however, the term is often used to describe behaviour such as aggression, self-injury, destructiveness, disruption to others, stereotypy and passive behaviour. There are a wide variety of influences on challenging behaviour and a number of models have been proposed. Challenging behaviour has been shown to elicit various emotions in staff and can be aversive and stressful.

The knowledge, attributions and behaviour of direct care staff have been shown to directly impinge upon the expression of challenging behaviour. Beliefs about behaviour have been shown to be important as they can influence the choice of intervention. Inappropriate intervention can lead to the long-term maintenance of challenging behaviour. Attribution theory has recently been applied to carers in learning disability services and has been used to explain the link between beliefs and emotions. It has been found that factors such as the amount of control a person is believed to have over their behaviour was related to negative emotion and affected helping behaviour. There has been no research to date that has investigated the link between attributions and stress.

Stress in learning disability services has been reported to be multi-faceted and it has been shown to be related to factors such as the work environment, client behaviour, lack of knowledge or skills and organisational characteristics. Studies have shown that staff coped with stress in different ways and not all staff found working with challenging behaviours stressful. There has been much research that has shown a link between attributions and emotions and work linking emotions and stress but little research has looked at beliefs about challenging behaviour and stress directly.

One solution that has been advocated in the learning disability field to improve staff skills and knowledge and to change beliefs about causation of challenging behaviour has been professional training courses. Training has been shown as an effective way of increasing knowledge and addressing inappropriate beliefs.

Research questions and aims of study

The proposed study aimed to replicate and extend the current research reported above. The present study aimed to investigate the beliefs of care staff regarding the causes of challenging behaviour, to investigate and extend the applicability of attributional models to caregivers and to investigate the sources of stress and coping strategies used when working with clients that display challenging behaviour.

The principal aim of the current study was to investigate the relationship between ratings on attributional dimensions on various topographies of challenging behaviour and perceived stress in managing such behaviour. Secondary aims were to examine differences between staff perceptions and stress depending on other variables such as experience and training. In order to examine the effect of training on attributions and stress in more detail, a second study was conducted which aimed to investigate changes in ratings on attributions and stress following an introductory course for staff on challenging behaviour.

<u>Aims of study</u>

The specific aims and predictions of the study were as follows:

1. The study aimed to examine the causal attributions that staff make about challenging behaviour. It has been shown in other research, reported above (e.g. Bromley and Emerson, 1995; Hastings et al. 1995), that staff generally offer a range of causal attributions regarding the causes of challenging behaviour. Part of the aim of the current study was to replicate these findings in the current sample.

2. To examine the relationship between ratings on attributional dimensions of controllability, stability, specificity and internality in relation to various topographies of behaviour. It has been shown that attributions vary according to behaviour (Stanley and Standen, 2000: Chavira et al., 2000). The present study aimed to replicate this finding and extend it to examining the six major topographies of challenging behaviour frequently cited in the literature.

3. To examine the relationship between ratings on attributional dimensions of controllability, stability, specificity and internality and the relationship to stress. It has been shown that the topography of the behaviour affects the subsequent emotional response (e.g. Hastings and Remington, 1995). It has also been shown that a perception that little can be done to change behaviour (attributed to be unstable) was a significant stress (Bromley and Emerson, 1995) and that the more one judges a person as responsible for their actions (controllability) the more one will feel anger and display harsh reactions (Chavira et al., 2000; Hastings et al., 1995). There has been no research to date that has directly considered these ratings in relation to stress, therefore, the current study aimed to extend the research by considering the relationship between these variables.

4. Previous studies have reported that stress in learning disability services was multi-faceted (e.g. Bromley and Emerson, 1995; Cullen, 2000) and that staff coping mechanisms were an important consideration (Hatton et al., 1995). The current study also aimed to replicate previous findings and examined the sources of staff stress and coping mechanisms.

5. To extend the current research by an examination of the relationship between attributions, stress and certain other variables (e.g. levels of stress, experience and prior training). As reported above, there have not been any studies to date

investigating attributions and stress. The current study aimed to extend research by investigating staff that rated stress as high compared with staff that rated it as low. It has been shown in some studies, reported earlier, that experience and/or training affected causal attributions (e.g. Hastings et al., 1995), The present study aimed to replicate and extend these findings.

<u>6.</u> Finally, it has been suggested that training was an important influence on staff attributions and stress (e.g. Hastings et al., 1995; Berryman et al., 1994). In order to extend the research on staff training the current study aimed to investigate the influence of an introductory training course on challenging behaviour on attributions, attributional ratings and stress.

The specific hypotheses of the study based on the above aims were as follows:

<u>Key Hypotheses: Attributions, Attributional Dimensions and Stress</u>

1. The first aim was to replicate causal explanations given by staff regarding challenging behaviour. Based on this work it was predicted that staff in the study would be able to offer a range of explanations to the causes of challenging behaviour (hypothesis 1).

2. The second aim of the study was to investigate the differential effects of topography on attributions. Extending the findings of Hastings and Remington (1995) and others on the emotional reactions of staff, it was hypothesised that the more "externalised/outer-directed" behaviours (such as aggression, destruction and disruptiveness) will be rated more controllable, more unstable, more specific and more external than the more "inner-directed" (self-injurious, stereotyped and passive) behaviour (hypothesis 2).

3. The third aim of the current study was to extend research into attributions and the relationship with stress. Based on previous work (e.g. Stanley and Standen, 2000; Chavira et al., 2000) the ratings on the attributional dimensions were hypothesised to differentially affect stress.

Extending the study by Chavira and colleagues (2000) who found that control was associated with negative emotion and behavioural reactions and based on the work of Sharrock et al. (1990); Dagnan et al. (1998) and Stanley and Standen (2000), who found controllability was negatively related to positive emotion it was hypothesised the more control an individual is perceived to have over their behaviour, the more stressed staff will feel (hypothesis 3a).

Based on findings by Bromley and Emerson (1995) that hopelessness and no effective ways of dealing with behaviour were related to stress it was also hypothesised the more stable a behaviour is perceived to be, the more stressed staff will feel (hypothesis 3b).

Based on the same previous findings by Bromley and Emerson (1995) it was also predicted the more global behaviour is rated, the more stressed staff will feel (hypothesis 3c).

Finally, based on the work of Bromley and Emerson (1995) who found more serious challenging behaviours were attributed to internal causes, it was predicted in the current study that the more behaviour is rated as internal, the more stressed staff will feel (hypothesis 3d).

It was also predicted, based on evidence from studies like Hastings and Remington (1995) that the more "outer-directed" behaviours such as aggressive behaviour, destructive behaviour and disruptive behaviour will be rated as more stressful than self-injurious behaviour, stereotyped behaviour and passive behaviour (hypothesis 3e).

4. Based on research such as Hastings (1995), Bromley and Emerson (1995) and Hatton et al. (1995) that found various sources of stress and coping amongst care staff, the fourth aim was to replicate these findings and it was hypothesised that participants in the current study would report a range of stressors (hypothesis 4a) and a range of coping strategies (hypothesis 4b).

5. The fifth aim of the current study was to explore differences on variables between groups. As it was hypothesised that particular ratings on attributional dimensions would be related to stress (hypothesis 3a, b, c and d) this prediction was taken a step further and it was predicted that staff that rated their stress in managing challenging behaviour as high would rate behaviour as more stable, more global, more internal and more controllable on the attributional dimensions than staff that rated their stress as low (hypothesis 5a).

Based on the research reported by Hatton et al. (1995) and George and Baumeister (1981) it was hypothesised that staff in the high stress group would rate overall job stress higher, job satisfaction lower and desire to leave the job higher than staff in the low stress group (hypothesis 5b).

It was also predicted that the high stress group would rate their confidence in managing behaviour lower than the low stress group (hypothesis 5c).

Based on work by Rose (1996) and Harris and Thomson (1993) it was hypothesised that staff that rate stress higher would rate support lower than those in the low stress group (hypothesis 5d).

Finally it was predicted that staff in the high stress group would have a mental health score higher than low stress group (based on research reported by Payne, 1999) (hypothesis 5e).

Based on findings from Hastings et al. (1995) that experienced participants attributed different reasons for behaviour it was suggested that either experience or training could explain this difference. Based on this finding it was predicted that experienced and trained staff would rate their knowledge as greater than less experienced staff (hypothesis 5f and 5i).

It was also hypothesised that staff with less experience and/or no previous training will rate behaviour differently on attributional dimensions (hypotheses 5g and 5j)

It was also hypothesised that staff with less experience and/or no previous training will rate stress higher and confidence lower than staff with experience and/or training (hypothesis 5h and5k).

6. The final aim of the current study was to investigate the influence of an introductory training course on challenging behaviour on attributions, attributional ratings and stress. Based on research like McKenzie et al. (2000), it was predicted that staff would rate their knowledge of learning disabilities and challenging behaviour higher after training compared to before training (hypothesis 6a).

Based on Hatton and Emerson (1993), it was predicted that staff would rate their stress lower and confidence higher following training compared to before (hypothesis 6b).

Finally, based on research such as Berryman et al. (1994), it was hypothesised that ratings on attributions would change after training. There has been no published research to date on ratings on attributional dimensions following training. It was predicted that staff would rate challenging behaviour as more external (more due to surroundings), more specific (more in particular situations), more unstable (more amenable to change) and more controllable (individuals have more self-control) following training (hypothesis 6c).

METHOD

Study One

The procedure and participants are reported for study one and two first, followed by a description of the measures used in both studies, piloting of the measure and reliability and validity of the measure. Finally, the type of statistical analyses performed are reported.

Procedure- Study One

Independent sector organisations and day and residential services which the author had contact with as a part of routine clinical work were contacted by telephone by the author to ask permission to approach staff to participate in the study. Organisations that agreed were then visited by the author who attended a staff meeting to explain the study and distribute questionnaires. In addition staff participating in a one-day training workshop in challenging behaviour were asked to volunteer to participate in the study. The measures that they completed prior to training were included in study one.

Staff were included in the study if they were presently working in learning disability services. There were no exclusion criteria.

All participants were assured that participation was voluntary and that responses were anonymous and confidential. Consent forms (see Appendix 1) were issued stating the above points. The author was present when the questionnaires were distributed, to answer questions and to explain the nature of the study.

Participants- Study One

Power analysis was used to determine the sample size required for the study. Using significance set at the 0.05 level, with the effect size predicted to be medium (d=0.5), at statistical power set at 0.8, a sample size of 30 was required for the correlational design. For comparisons between groups using a t-test, sample size was required to be 60 and for comparisons within groups sample size was required to be 35.

Seventy-six social care staff working in learning disability services participated in study one.

Tables 1 to 2 shows the gender and ages of participants.

Table 1. Gender of Participants in Study One (n=76).

Gender	Percentage	Number
Male	24%	18
Female	73%	55
Missing Data	3%	3
Total	100%	76

Table 2. Age of Participants in Study One (n=76).

Age	Percentage	Number
<25	7%	5
25-34	21%	16
35-44	22%	17
45-54	29%	22
>55	12%	9
Missing Data	9%	7
Total	100%	76

The average age of participants was 41 years old (range 19-63 years, SD = 12).

Tables 3 and 4 show the number of participants with previous training and number of years experience in learning disabilities.

Table 3. Number of participants in study one with previous training in challenging behaviour (n=76)

Training	Percentage	Number
Previous Training	39%	30
No Previous Training	53%	40
Missing Data	8%	6
Total	100%	76

Table 4. Number of years experience in learning disability services (n=76).

Number of Years Experience	Percentage	Number
<5	38%	29
5-9	21%	28
10-19	14%	18
>20	8%	11
Missing Data	4%	5
Total	100%	76

The average number of years experience in learning disability services was 8 years (range 0.5-30 years, SD = 7).

Thirty-six percent (n=27) of staff had experience of all 6 topographies of challenging behaviour. The majority of staff (62%, n=47) had experience of between 1 and 5 of the topographies of behaviour and only one percent (n=1) had no previous experience of any of the forms of challenging behaviour (missing data for one participant). The breakdown of the number of staff with experience of each type of behaviour is shown in table 5.

Table 5. Percentage of staff in study one with experience in each type of challenging behaviour (n = 76)

Type of Challenging Behaviour	Percentage	Number
Aggressive Behaviour	88%	67
Self-Injurious Behaviour	76%	58
Destructive Behaviour	59%	45
Disruptive Behaviour	82%	62
Stereotyped Behaviour	76%	58
Overly Passive Behaviour	67%	51

Study Two

For the second part of the current study the effect of training was examined in relation to staff attributions and stress.

Procedure- Study Two

Staff that were attending a one-day "Introduction to Challenging Behaviour" training course that was being run routinely for residential and day services were invited to participate in the second study. The training was conducted by a Consultant Clinical Psychologist and a Community Learning Disability Charge Nurse and included

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components on: definitions of a learning disability; duty of care issues; challenging behaviour; defining, recording and assessing behaviour; reactive strategies; basic behavioural approaches; and positive programming approaches. This training programme has been previously evaluated and shown to significantly increase participants' knowledge (McKenzie et al., 2000).

Staff on four different training days were invited to participate in the second study in order to assist workshop leaders evaluate their training. Participation was voluntary and responses were ensured to be anonymous and confidential.

The author administered the questionnaire's pre- and post-training. All participants gave consent to be followed up 6-8 weeks following the workshop. The managers for each staff group were invited to indicate the best method for follow up. All requested follow up to be conducted by a telephone reminder and postal questionnaires.

Follow-up procedures recommended by Oppenheim (1992) were followed (e.g. giving advance warning, assuring confidentiality, issuing reminders, assuring anonymity and enclosing return envelope). The author contacted the managers of each establishment at the appropriate time to remind them about the study and to ask permission to contact staff for a follow-up. The appropriate number of questionnaire's were sent by post to each manager with a covering letter reminding staff about the study and a pre-paid reply envelope. Participants were asked to respond by sending the completed questionnaire's back in the reply envelope as soon as possible within a two-week deadline. One large envelope was sent for each group to collate their responses and the managers agreed to encourage their staff to participate and to collate all responses for return. A further reminder letter was sent 4 weeks later to encourage further participation from those that had not initially responded.

Participants- Study Two

Thirty-nine staff agreed to participate in study two (100% response rate).

Table 6 shows the demographic details of participants from each training group.

Table 6. Demographic details of participants in study two (n = 39).

Group Number	Number of Staff	Female	Male	Age	Experience
1	8	6 (86%)	1 (14%) (1 missing)	Average 40.86 years (range 22-62, SD 16.4)	Average 3.7 years (range 2-6, SD 1.5)
2	7	7 (100%)	0	Average 41.33 years (range 29-50, SD 7.71)	Average 7.43 years (range 0.5-30, SD 10.87)
3	10	8 (89%)	1 (11%) (1 missing)	Average 41.57 years (range 19-59, SD 13.25)	Average 7.28 years (range 1-20, SD 5.91)
4	14	8 (62%)	5 (39%) (1 missing)	Average 43.31 years (range 27-56, SD 10.52)	Average 9.36 years (range 0.5-20, SD 7.16)
Total Group	**39**	**29 (81%)**	**7 (19%) (3 missing)**	**Average 42.06 years (range 19-62, SD 11.63)**	**Average 7.63 years (range 0.5-30, SD 7.24)**

Control Group

In order to assess the effect of training a control group completed the measures in advance of the training in addition to the other three time periods. This was to assess whether any changes found between measurements were due to the training or for some other factor.

Fifteen staff (38%) completed the measures in advance of the training workshop.

Participants completed the same questionnaire as in study one at three time periods: immediately prior to training, immediately post-training and at 6-8 week follow up. Table 7 illustrates the number of participants that completed measures at each time frame.

Table 7. Participants at each time frame in study two (n=39).

	Pre-Training	Post-Training	Follow Up
Number of Participants	39	36	24

Measures- Study One and Study Two

Questionnaire Design

As no questionnaire was found which specifically tapped into the variables of interest, a measure was devised which attempted to fulfil this purpose. The questionnaire devised can be seen in Appendix 2 and is described below. Scales, questionnaires and interview protocols in the literature were reviewed for commonly occurring themes. On the basis of this review a questionnaire was developed. The questionnaire was primarily concerned with assessing attributions about challenging behaviour and perceptions of stress and support and was designed based on recommendations from Oppenheim (1992) on questionnaire design (e.g. starting with factual questions, then open-ended questioning and then measuring attitudes). A variety of formats and a balance of questions were employed using open-ended questions and rating scales using visual analogue scales.

McCormack, de Horne and Sheathers (1988) report that visual analogue scales have been used often and effectively in psychology and medicine as clinical research tools mainly to measure subjective experience. Visual analogue scales have been reported to be quick and easy to administer and score (Morrison, 1983), are suitable for frequent and repeated use (Rampling and Williams, 1977), are easily understood by participants (Morrison, 1983), require little motivation for completion (Rampling and Williams, 1977) and are suitable for use by untrained staff (Folstein and Luria, 1973). McCormack et al. (1988) also report the use of visual analogue scales to measure participants' attitudes or knowledge has good face and content validity. The visual analogue scales in the current study consisted of a ten-centimetre line anchored at both ends with words descriptive of the maximal and minimal extremes of the dimensions being measured. Scoring procedures will be addressed later in the method section.

As the questionnaire was designed for the purposes of the study it was initially screened by a panel of "experts" and piloted with a representative sample of care staff working in learning disability services prior to use in the main study. Reliability and validity were also measured and will be addressed later in the method section.

<u>Questionnaire Items</u>

The questionnaire that was developed for use in the study contained twenty-one questions over eleven A4 pages. The wording and scoring of the items were counterbalanced. The scoring of each item are described below. The following questions were included in the questionnaire:

- *Demographic Characteristics*

Demographic details were gathered for participants including age, gender, experience (number of years working in learning disability services and an indication of whether they had experience with each of the 6 forms of challenging behaviour) and previous training in challenging behaviour.

- *Knowledge of Learning Disabilities and Challenging Behaviour*

In order to measure knowledge participants in the current study were asked to rate on a bipolar visual analogue scale how much they felt they knew about learning disabilities, how much they felt they knew about challenging behaviour and how much they felt they knew about managing challenging behaviour (questions 1, 2 and 3). A higher score on these three questions indicated greater knowledge.

- *Attributions about challenging behaviour*

In order to measure causal attributions about challenging behaviour participants were asked to answer an open ended question on what they felt the three main causes were for aggression, self-injury, destructiveness, disruptive behaviour, stereotypy and overly passive behaviour (question 5a, b, c, d, e and f).

Participants were asked to consider these behaviours and topography in particular for four main reasons (cf. Hastings, 1996). Firstly, topography is usually used to describe challenging behaviour and is on the basis that referrals are usually made and staff are usually familiar with terms such as aggression to describe their clients. Secondly, staff often are asked to help deal with an incident of challenging behaviour and do not witness precipitating events and have to act on the information available (i.e. the

behaviour's topography). Third, the focus was on general attributions and not on particular clients. Fourth, supplying information about the behaviour's function, perhaps by describing contexts (like in a vignette) would have possibly biased participant's responses. Finally, no other studies to date have considered these 6 topographies together and have tended to focus on a few.

To measure attributional dimensions questions 6-9 asked participants to rate each of the six topographies of challenging behaviour on bipolar visual analogue scales measuring the four attributional dimensions: internality, controllability, stability and specificity. A higher score on these attributional dimensions indicated that the behaviour was thought to be more external, more specific, more unstable and more controllable by the client.

- *Stress*

As reported earlier, stress is a very difficult concept to measure. Questions 10-21 addressed the main areas reviewed in the literature that were related to stress in carers working in learning disability services.

- *Confidence*

Question 10 addressed confidence in working with clients that displayed aggression, self-injury, destructiveness, disruptive behaviour, stereotypy and overly passive behaviour by asking participants to rate on a bipolar visual analogue scale. A higher score indicated greater confidence.

- *Stress and challenging behaviour*

In order to measure how stressed staff felt in managing each type of behaviour participants were asked to rate how stressful would find working with such behaviour by rating their stress on a bipolar visual analogue scale (question 11). A higher score indicated that staff felt less stressed.

- *Overall work stress*

In question 12, participants were asked to rate how stressful they find their current job to give some indication of how stress affected participants in their job. Again participants were asked to rate their stress on a bipolar visual analogue scale.

Participants were also asked to write down what they find the most three most stressful aspects of their job (question 13).

- *Support and Coping*

In order to assess the coping strategies used by staff, job satisfaction and to assess the possible mediating effects of support participants were asked six questions. Participants were asked to indicate what three things they used to deal with stress at work (question 14). They were also asked to rate on a visual analogue scale how satisfied they were with their job (question 15) and to rate on a visual analogue scale the support they felt they got from their manager (question 16), colleagues (question 17) and from their community learning disability team (question 18). A higher score indicated higher satisfaction and more support.

- *Propensity to Leave Job and Rate of Absenteeism*

To assess the above factors, participants in the study were asked to rate on a bipolar visual analogue scale how much they would like to leave their job to do something else (question 19) and also to write the number of days they had been off sick in the last year (question 20). A higher score in question 19 indicated a greater wish to leave the job.

- *Ratings of health and well-being*

To measure the impact of stressors on mood, participants were asked to rate how much they felt anxious, depressed or physically ill in relation to their current job on a bipolar visual analogue scale (question 21). Higher scores on these items indicated feeling more depressed, anxious or ill.

<u>Data Collection and Scoring</u>

The questionnaires were collected by the author either directly from participants following completion or were collated by managers of services and collected by the author at a later date.

Scoring of the questionnaires was done by the author at a later date. Visual analogue scales were scored by measuring the distance from the minimal end-point to the nearest centimetre. Scores were rounded up or down to the nearest centimetre giving scores in whole digits from 0-10.

The written responses were scored in two different ways. Scoring categories used by Bromley and Emerson (1995) were used to categorise participant's answers for the causal attributions. The categories and examples given by Bromley and Emerson (1995) were as follows:

1. Internal psychological state or mood (e.g. stress, anxiety, frustration, needs to be reassured)
2. Past environment (e.g. childhood, home circumstances, institutionalisation, sexual abuse)
3. Current environment (e.g. lack of male involvement, reaction to change, lack of staffing, social isolation)
4. Self-stimulation (e.g. enjoyment, boredom, form of play, sensory stimulation)
5. Communication (e.g. when wants something, manipulative)
6. Attention seeking (e.g. likes to get attention)
7. Medical Problem (e.g. constipation, PMT, hernia, pain)
8. Learning disability or specific syndrome (e.g. autism, asperger syndrome, rett syndrome, intellectual impairment)
9. Mental Illness (e.g. psychosis, hallucination, personality disorder)
10. Communication Difficulty (e.g. frustration at lack of ability to communicate)
11. Escape or avoidance (e.g. occurs when demands are made)

Each response was coded in terms of whether or not an explanation related to the individual categories present.

For the stress and coping items participants had reported what three things caused them the most stress and what three things they did to cope with stress. The participants responses were subsequently categorised into groups. The basic steps of content analysis (Dey, 1993) are to divide the data into manageable parts, to collect responses together that relate to areas of interest, to create categories that describe similar responses within these general groupings and to combine or split categories where data can best be described in a rearranged structure.

Seven categories were created for the stress responses (staff issues, policy issues, work issues, resource issues, client behaviour, client- other and other). Nine categories were created for coping responses (support from others, time off, more resources, recreation, rewarding, training, clients, personal responses and working conditions). Examples of responses can be seen in Appendix 3.

Sum of Scores

Both individual scores on questions and groups of scores were analysed. Some scores were grouped to give an overall knowledge, attribution, confidence, stress, satisfaction and support scores. Questions 1,2 and 3 were summed to give a Knowledge Score; questions 6a, b, c, d, e, f were summed to give an overall Internality Score; questions 7a, b, c, d, e, f were summed to give an overall Specificity Score; questions 8a, b, c, d, e, f were summed to give a total Stability Score; questions 9a, b, c, d, e, f were summed to give a total Controllability Score; questions 10a, b, c, d, e, f were added to give a total Confidence Score; questions 11a, b, c, d, e, f were summed to give an overall Stress Score; questions 16, 17, 18 were added to give a total Support Score; and questions 21a, b, c were summed to give a total Mental Health Score.

<u>Piloting of Questionnaire</u>

<u>Screening</u>

Oppenheim (1992) notes that it is essential to pilot every question, every question sequence, every inventory and every scale in a study. Results are described in the following section.

The questionnaire was initially screened by a panel of "experts" including two Consultant Clinical Psychologists working in Learning Disabilities Services, a Trainee Clinical Psychologist and a Community Learning Disability Charge Nurse. Findings concerning validity are reported later in the method section.

<u>Pilot Group</u>

The questionnaire was subsequently piloted with a group of sixteen social care staff (eleven female (69%), five male (31%)) working in learning disability services that were attending a one-day workshop on working with challenging behaviour. This group of staff were employed to work in four group homes supporting clients with a learning disability. The average age of the participants was 41 years old (range 22- 63). The staff had an average of seven years prior experience working in learning disability services (range 1- 30). Six (38%) of the pilot group had received previous training in challenging behaviour and ten (62%) had not. The majority had some experience of challenging behaviour (94%, n=15) and only one person did not have any experience (6%). Most people had experience with overly passive behaviour (81%, n=13), aggressive behaviour (63%, n=10), disruptive behaviour (63%, n=10) and stereotyped behaviour (63%, n=10). Only 25% (n=4) reported having experience with self-injurious behaviour and 7% (n=1) with disruptive behaviour.

This staff group was considered representative of those normally working in learning disability services and similar to those that were targeted for the main enquiry of the study.

The participants completed the questionnaire prior to training. The instructions given to the participants, time given to complete the questionnaire, and the questionnaire

design were piloted. In addition participants were encouraged to give written and verbal feedback on the questionnaire design.

Findings from the pilot group can be seen in the results section.

Reliability and Validity

As the questionnaire was developed for the use of the study, reliability and validity were calculated.

Reliability

Oppenheim (1992) reports that reliability refers to the purity and consistency of a measure, to repeatability and the probability of obtaining the same results again if the measure were to be duplicated. Reliability is considered a necessary (but not sufficient) condition for validity. There are different types of reliability: test-retest reliability, parallel form reliability and scorer reliability (Powell, 1996). Test-retest and scorer reliability were measured in the current study. Parallel reliability, which assesses reliability during a single session by giving all participants two versions of the test was not assessed for the study, as two versions of the questionnaire did not exist.

Test-Retest Reliability

Test-retest reliability refers to when the same test is administered to the same group of subjects on two different occasions separated by a time interval (Powell, 1996). Scores on the first occasion and then correlated with scores on the second. In the current study seventeen participants (22%) completed the same questionnaire at two points with a gap of 1-14 days. Findings are reported in the results section.

Scorer Reliability

Scorer reliability is reported to be essential to calculate whenever scoring is fallible (Powell, 1996). To obtain an estimate two or more judges score the same participants. There does not seem to be any agreed proportion of questionnaires that should be double marked to assess inter-rater reliability in the literature. Studies generally report using somewhere between 20-30% of the sample. Thus, a quarter (n = 19) of the

sample was chosen to be second marked by a second rater blind to the purpose and design of the study. This proportion was chosen randomly from the full sample using random number tables from Dyer (1995). Findings are reported in the results section.

Validity

Validity tells us whether the question measures what it is supposed to measure. There are several types of validity: face validity, content validity, criterion-related validity and construct validity.

Face Validity

Powell (1996) reports that face validity concerns a subjective judgement as to whether a measure appears to be measuring what it is meant to measure. This was assessed in the current study by having a panel of experts screen the questionnaire, as reported earlier. The questionnaire was considered to have good face validity by the panel.

Content Validity

Content validity concerns whether a test samples from the entire domain of that which is to be measured. Aitken (1985) reports that this is not a statistical concept but a question of expert judgement. The questionnaire was considered to have good content validity by the panel and appeared to cover all relevant domains from the literature.

Criterion-related Validity

Criterion-related validity can be achieved when a test yields the same result as another test that is already known to be valid (Powell, 1996). In order to measure whether the question items in this study are measuring what they are supposed to two small validation studies were done against two standardised measures.

Validity of Attribution Items

In order to measure whether the attributional dimensions are valid measurements a small sample completed question items 6-9 from current questionnaire in addition to the Attributional Style Questionnaire (ASQ) (Peterson and Villanova, 1982). In the ASQ (Appendix 4) participants are given hypothetical events and asked to write "one major

cause" of each event and rate on 7-point scales according to internality, stability, globality and controllability. It has been shown to be reliable in explaining individuals' own behaviour (Peterson and Villanova, 1982) and has been modified to code behaviour by staff (Sharrock et al, 1990; Cottle et al, 1995; Dagnan et al, 1998).

Twenty-four staff completed both measures. The ASQ items were summed to give an internality, stability, specificity and controllability score and compared with the total internality, stability, specificity and controllability scores from the questionnaire developed in this study. The correlation results are reported in the following section.

Validity of the Stress Items

The General Health Questionnaire (GHQ-28) (Goldeberg and Hillier, 1979) was used as an external criterion against the health and well being items in the current study (see Appendix 5).

Thirty-two staff completed both measures. The individual subscales in the GHQ (somatic symptoms, anxiety and depression) were compared with the individual mental health subscales of the study questionnaire (physical illness, anxiety and depression) and the total GHQ score was compared with the total mental health score in the study. Correlations are reported in the following section.

Construct Validity

Powell (1996) reports that construct validity is concerned with the psychological meaning of test scores and consists of: a) expert judgement that test content pertains to the construct; b) high correlations with other measures of the construct; c) low correlations with measures of different constructs; d) the thoughts and comments of participants as they undertake the test; e) studies of group differences and f) prediction of task performance.

Items a), b), d) and e) were undertaken with the current measure to assess construct validity. Due to time constraints and demands on participants the questionnaire was not

compared with measures of different constructs and the predictive validity of the measure was not calculated.

Statistical Analysis

All analyses were done using version 10 of the Statistical Package for the Social Sciences (SPSS).

Parametric statistical analyses were used for the majority of the data analysis. Parametric tests make the assumption that the data samples are from a population with a specified normal distribution. They are also only suitable for data measured on an interval or scale measurement.

There has been some debate in the literature to the nature of visual analogue scales (VAS) (e.g. Chapman, 1976; Aitken, 1969; McCormack et al., 1988) and the subsequent choice of statistical analysis. There appears to be no agreement in the literature as to whether VAS are ordinal scores which can be ranked and analysed using non-parametric tests or whether they can be considered as interval scales which are suited for operations of addition, subtraction, calculation of averages and other statistical procedures. Aitken (1969) recommended using parametric methods with VAS scores as long as the data formed a normal distribution or is transformed to achieve a normal distribution. McCormack et al. (1988) promote further arguments which can be advanced in favour of treating VAS scores as interval level data. They report that the assumptions underlying the acceptance of VAS as interval scales are shared with many of the accepted forms of psychological measurement and when used in this manner they are able to discriminate between groups in the expected direction and provide replicable results. McCormack et al. (1988) report that while it can never be unequivocally demonstrated that VAS scores and their data can be treated as interval data and that the appropriate statistical techniques are applicable to VAS scores, their use is based on the same assumptions as other psychological measurements.

In support of parametric analysis Howell (1997) also reports that parametric tests are sufficiently robust to make distribution free tests unnecessary. He also emphasises the robustness of parametric tests to violations of their assumptions.

In order to establish which type of analysis is appropriate for the data in this study the measures were analysed for distribution and normality. Results are reported in the result section.

Levels of Significance

Alpha was set at 0.05 when examining the key hypotheses to determine whether or not they are supported. Where there are multiple comparisons, the possibility of Type I errors (erroneously rejecting the null hypothesis when it is actually true, Howell, 1997) increases. A Bonferroni adjustment was undertaken for multiple testing (dividing alpha level by number of comparisons) to reduce the probability of making a type I error. For most of the secondary hypotheses, 2 tailed significance was set at a more conservative level of $p = 0.01$.

Ethical approval

Approval and permission to conduct the study was sought from a local research ethics committee and was granted.

RESULTS

Distribution of the data, reliability, validity and piloting of the questionnaire are reported first. Key hypotheses and results of study one relating to attributions and stress are then reported followed by secondary hypotheses about differences between groups. Finally results of study two relating to changes after a training programme are reported.

Reliability

Test-Retest Reliability

In order to measure reliability of the questionnaire 22% (n=17) of participants completed the same measure at two different times (1-7days apart).

Results were calculated using the Pearsons' product moment correlations. The majority of measures correlated at the 0.01 significance level (n = 48) or at the 0.05 significance level (n = 5). Only 6 measures did not show a significant relationship at test-retest. These are shown in table 8 below.

Table 8. Measures that did not correlate at test-retest (n=17).

Measure	Correlation Coefficient	Significance	N
Internality rating for destructive behaviour	r = 0.35	0.23	14
Internality rating for disruptive behaviour	r = 0.47	0.09	14
Specificity rating for passive behaviour	r = 0.35	0.35	10
Stability rating for destructive behaviour	r = 0.45	0.11	14
Confidence in working with passive behaviour	r = 0.56	0.06	12
Stress in working with passive behaviour	r = 0.28	0.37	12

Any results using these six measures, therefore, have to be considered with caution as they have been shown not to be reliable measures. For the majority of the questionnaire, however, reliability is considered to be acceptable.

Twenty-five percent (n=19) of the questionnaires were independently scored, by a second rater using the scoring procedure previously described, to obtain a measure of inter-rater reliability. The extent of agreement between the two coders was calculated using a simple percentage agreement index formula (number of agreements/ (number of agreements + number of disagreements) x100). The percentage agreement ranged between 89-100%. Disagreements were resolved by discussion and results reported here are based on responses coded after this process. The scoring can, therefore, be considered reliable.

Validity

Criterion-related validity

Twenty-four (32%) participants completed both the Attributional Style Questionnaire (ASQ) (Peterson and Villanova, 1982) and the study measures. Pearson product moment correlations were calculated to illustrate the relationship between the two scales. Table 9 shows the results of this calculation.

Table 9. Correlation between ASQ and questions 6-9 of questionnaire (n=24).

	ASQ internality score	ASQ stability score	ASQ specificity score	ASQ controllability score
study internality score	r = -0.83** n = 24			
study stability score		r = -0.53** n = 23		
study specificity score			r = -0.28 n = 24	
study controllability score				r = 0.34 n = 19

**p<0.01

As can be seen from table 9 there was a significant negative relationship between the internality scores and between the stability scores. The study scales were scored in the opposite direction to the ASQ scales, therefore a negative correlation indicated that the two scales were similar. The attributions scales were considered to have some validity.

Thirty-two (42%) participants completed both the GHQ and the study health measure. Pearson product moment correlations were calculated to illustrate the relationship between the two measures. Table 10 illustrates the correlations between GHQ and study measures.

Table 10. Correlations between GHQ and study health measures (n=32).

	GHQ depression score	GHQ anxiety score	GHQ somatic symptoms score	total GHQ score
Study depression score	r = 0.47** n=32			
Study anxiety score		r = 0.63** n=32		
Study physical illness score			r = 0.39* n=32	
total mental health score-study				r = 0.69** n = 32

*p<0.05 **p<0.01

As can be seen from table 10 all study measures were significantly related to the GHQ measures. The health measures in the questionnaire developed for the study were, therefore, considered valid measures.

Pilot Group

Sixteen social care staff from one residential group home piloted the questionnaire.

The results of piloting the questionnaire indicated that there was a reasonable spread of scores (the majority ranged from 0-10) on all questions and no floor or ceiling effects. The data were checked for normality using the Kolmogorov-Smirnov test, which indicated that all measures were normally distributed. The items that invited participants to answer open-ended questions (attribution, stress and coping) were completed satisfactorily. One participant had failed to complete the attributions question, three had failed to complete the stress question and five had not completed

the coping questions. Participants indicated that the failure to complete was due to lack of time.

Participants were also invited to make comments or suggestions for improvement following completion of the questionnaire. One participant indicated that:

> "It would be helpful if our responses could be on a sliding scale rather than just two options"

From this comment it was clear that this participant had not fully understood the visual analogue scale. Due to these observations and suggestions the initial verbal instructions given to participants were modified and included an example of the visual scale and a demonstration was given. Participants were also instructed to "not spend too long considering their responses and answer the first response that comes to mind".

Overall it was felt that there were no major difficulties for staff using the questionnaire and there were no suggestions for improvement. The measure was, therefore, considered to be easily understood for participants. Results obtained from the pilot group were included in the main analysis.

STUDY ONE:

The following section reports results obtained from participants in study one.

Distribution of Data for Statistical Analysis

In order to determine whether the data in the main study met the criteria for the use of parametric tests the distribution of the data from each question was examined by examining histograms of data from each question. The Kolmogorov-Smirnov Z Test was used to determine whether the sample was normally distributed and each distribution was examined for the degree of kurtosis and skewness.

The results of the Kolmogorov-Smirnov test indicated that the majority of questions were normally distributed (n = 47). Ten questions were significantly different from a

normal distribution and are shown in table 11 . The degree of skewness and kurtosis are shown for these items.

Table 11. Degree of skewness and kurtosis for ten questions that did not have a normal distribution (n=76).

Question	Skewness	Standard error of skewness		Kurtosis	Standard error of kurtosis	
Experience	1.48	0.28	Positively skewed	2.1	0.56	Leptokurtic
Controllability Stereotyped	0.92	0.29	Positively skewed	0.17	0.58	
Stress SIB	0.41	0.28	Positively skewed	-0.16	0.56	
Stress Disruptive	0.42	0.28	Positively skewed	-0.53	0.56	
Stress Stereotyped	-0.04	0.29	Negatively skewed	-0.52	0.56	
Support manager	-0.56	0.28	Negatively skewed	-0.72	0.56	
Support colleagues	-1.22	0.28	Negatively skewed	1.76	0.56	Leptokurtic
Anxiety	0.80	0.28	Positively skewed	-0.09	0.56	
Depression	1.1	0.28	Positively skewed	1.08	0.56	
Physically Ill	1.3	0.28	Positively skewed	1.08	0.56	Leptokurtic
Total mental health score	0.74	0.28	Positively skewed	-0.11	0.56	

Despite the above variables that were slightly skewed, overall the results can be considered reasonably normally distributed and, therefore, parametric statistical analyses were deemed appropriate for the majority of analyses. Where groups were compared the data was checked for normality prior to analysis.

The following sections report the results obtained in relation to the aims and hypotheses of the study.

1. Causal Attributions

Staff attributed a range of reasons for challenging behaviour. Two new categories were added (basic needs and "other") to the categories by Bromley and Emerson (1995) to reflect all the causes identified. The number of staff responding to each category according to behaviour are shown in Table 12 .

Table 12. Number of staff citing 1,2 and 3 reasons for each form of challenging behaviour (n=76).

Number of reasons cited	Number	of	staff	citing	reasons	for each	behaviour
	Aggressive	SIB	Destructive	Disruptive	Stereotyped	Passive
1	67	59	56	56	56	50
2	65	51	47	44	41	41
3	57	45	41	36	33	30
Total	**189**	**155**	**144**	**136**	**130**	**121**

It can be seen that for each behaviour the majority of staff cited one reason with less describing two and three reasons respectively. In addition, it can also be seen the number of reasons cited decreased from aggressive behaviour to passive behaviour.

Graph 1. shows the percentage of staff citing reason for behaviour according to the categories ascribed. It can be seen from graph 1. that internal psychological state/ mood was the most frequently cited response (96%), followed by self stimulation (73%) and to gain attention (71%).

Graph 1. Staff causal attributions for challenging behaviour
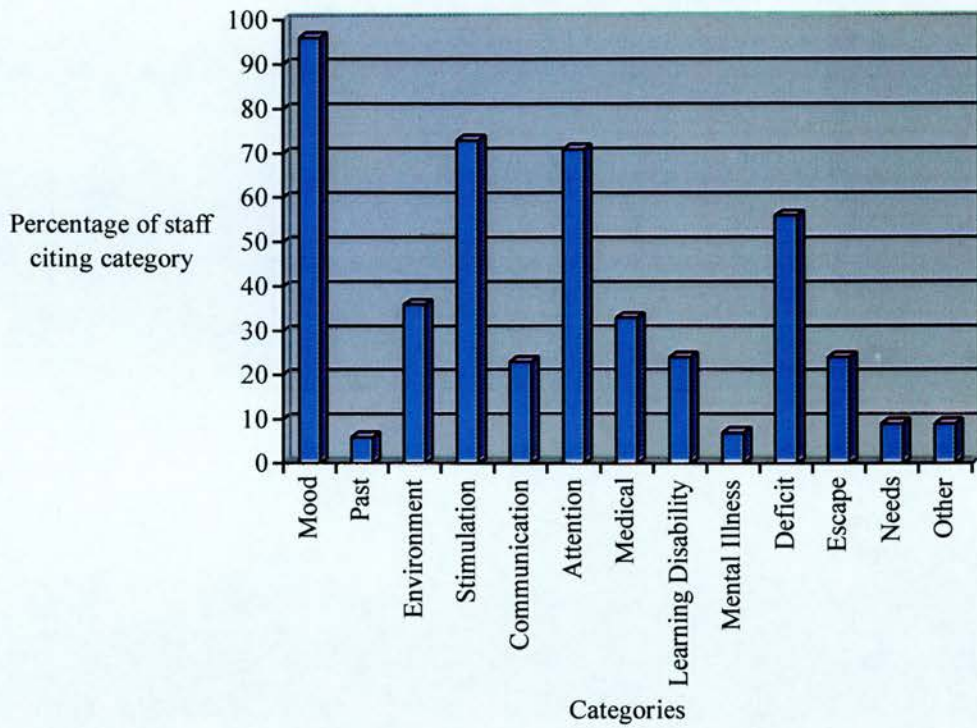
Tables 13 to 18 below illustrate the same categories for each form of challenging behaviour and show the number of times a reason was cited by staff according to the behaviour (n>76 in some cases as may be cited more than once by an individual). The most common reason cited can also be seen by looking at the ranking of reasons.

Table 13. Number of staff citing reasons in each category for aggressive behaviour ranked in order of most frequent reason (n=76).

Cause of Behaviour	Number of times reason cited	Ranking of reasons	Example
Internal psychological state/ mood	85	1	"frustration", "agitation", "anger", "jealousy"
Lack of communication skills	28	2	"communication problems", "inability to express self"
Current environment	21	3	"inappropriate staffing", "change of routine", "overcrowded"
Attention- seeking	19	4	"attention seeking"
Self-stimulatory	10	5	"boredom", "lack of something to do"
Form of communication	6	6 (joint)	"trying to communicate something", "to get what they want"
Escape or avoidance	6	6 (joint)	"not wanting anyone near", "dislike of activity", "not wanting to do something"
Specific medical problems	5	8 (joint)	"PMT", "pain", "illness"
Basic needs	5	8 (joint)	"hungry"
Mental Illness	2	10	"disturbed"
Learning disability or specific syndrome	1	11 (joint)	"degree of learning disability"
Other	1	11 (joint)	"survival"
Past environment	0	13	

Table 14. Number of staff citing reasons in each category for self-injurious behaviour ranked in order of most frequent response (n=76).

Cause of Behaviour	Number of times reason cited	Ranking of reasons	Example
Internal psychological state/ mood	50	1	"fear", "temper", "unhappy", "mood"
Self-stimulatory	32	2	"boredom", "calming", "sensation", "enjoyment"
Attention- seeking	23	3	"attention seeking"
Specific medical problems	14	4	"pain", "epilepsy", "PMT"
Lack of communication skills	13	5	"communication problems", "inability to express self"
Current environment	5	6 (joint)	"inappropriate staffing", "noise"
Form of communication	5	6 (joint)	"trying to communicate", "self expression"
Escape or avoidance	5	6 (joint)	"not liking what is going on", "avoidance", "stopping an activity"
Learning disability or specific syndrome	3	9	"degree of learning disability"
Basic needs	2	10	"need toilet"
Mental Illness	1	11 (joint)	"mental illness"
Past environment	1	11 (joint)	"abuse"
Other	1	11 (joint)	"coping strategy"

Table 15. Number of staff citing reasons in each category for destructive behaviour ranked in order of most frequent response (n=76).

Cause of Behaviour	Number of times reason cited	Ranking of reasons	Example
Internal psychological state/ mood	62	1	"agitated", "anger", "frustration", "depression"
Attention- seeking	22	2	"attention seeking"
Self-stimulatory	19	3	"fun", "enjoyment", "boredom"
Lack of communication skills	13	4	"communication problems", "can't verbalise emotion"
Current environment	10	5	"unhappy with surroundings", "overcrowded", "noise"
Form of communication	8	6	"trying to communicate", "venting feelings"
Escape or avoidance	4	7	"tell people to back off"
Specific medical problems	3	8	"pain", "medication", "epilepsy"
Learning disability or specific syndrome	2	9	"degree of learning disability", "autism", "type of resident"
Mental Illness	1	10	"mental illness"
Past environment	0	11 (joint)	
Basic needs	0	11 (joint)	
Other	0	11 (joint)	

Table 16. Number of staff citing reasons in each category for disruptive behaviour ranked in order of most frequent response (n=76).

Cause of Behaviour	Number of times reason cited	Ranking of reasons	Example
Internal psychological state/ mood	46	1	"fear", "panic", "excited", "frustration"
Attention- seeking	31	2	"attention seeking", "want a reaction"
Lack of communication skills	18	3	"unable to communicate"
Self-stimulatory	9	4 (joint)	"feel good", "habit", "boredom"
Specific medical problems	9	4 (joint)	"pain", "epilepsy", "PMT"
Form of communication	7	6	"trying to communicate something", "communicate feelings"
Escape or avoidance	5	7	"not wanting something", "demand", "avoidance"
Current environment	4	8 (joint)	"crowding", "strange place"
Learning disability or specific syndrome	4	8 (joint)	"hyperactivity", "degree of learning disability"
Basic needs	2	10	"tired"
Other	1	11	"learned behaviour"
Past environment	0	12 (joint)	
Mental Illness	0	12 (joint)	

Table 17. Number of staff citing reasons in each category for stereotyped behaviour ranked in order of most frequent response (n=76).

Cause of Behaviour	Number of times reason cited	Ranking of reasons	Example
Self-stimulatory	68	1	"fed up", "no sense of direction", "comfort", "calming"
Internal psychological state/ mood	24	2	"anxiety", "frustration", "angry", "emotional conflict"
Learning disability or specific syndrome	11	3	"part of condition", "autistic"
Attention- seeking	6	4	"attention seeking", "to be seen"
Lack of communication skills	5	5	"unable to express emotions", not being able to be understood"
Specific medical problems	4	6	"illness"
Current environment	3	7 (joint)	"not sufficient staff support", "long periods isolation"
Other	3	7 (joint)	"thinking", "coping mechanism"
Form of communication	2	9	"expressing how feel"
Mental Illness	2	10	"mental illness", "manic"
Past environment	1	11 (joint)	"institutionalised'
Escape or avoidance	1	11 (joint)	"escape"
Drive state	0	13	

Table 18. Number of staff citing reasons in each category for passive behaviour ranked in order of most frequent response (n=76).

Cause of Behaviour	Number of times reason cited	Ranking of reasons	Example
Internal psychological state/ mood	48	1	"depression", "fear", "shy", "unhappy"
Self-stimulatory	22	2	"fed up", "lack stimulation", "lack motivation"
Lack of communication skills	15	3	"communication problems", "unable to express emotions"
Escape or avoidance	9	4	"time out", "not wanting to participate"
Learning disability or specific syndrome	8	5	"condition", "autism"
Specific medical problems	6	6	"over medicated", "sensory deficits", "epilepsy"
Current environment	4	7	"noise"
Past environment	3	8 (joint)	"past incident", "abuse"
Other	3	8 (joint)	"reinforced behaviour"
Form of communication	1	10 (joint)	"communicating feelings"
Attention- seeking	1	10 (joint)	"attention seeking"
Mental Illness	1	10 (joint)	"mental illness
Basic needs	0	13	

It can be seen by comparing tables 13 to 18 that the top three reasons vary according to the behaviour in question. For the majority of behaviours internal psychological

state/ mood is cited the most frequently with the exception of stereotyped behaviour where the most frequent cause of behaviour is seen as self-stimulation. The second and third most frequent categories cited by staff are attention, stimulation, communication deficit and current environment.

2. Topography of Behaviour and Attributional Dimensions

In order to investigate the differential effects of topography on attributional ratings the mean ratings for each behaviour for each attributional dimension were calculated and significant differences were examined.

The following sections consider each attributional dimension in turn.

Internality Attribution

The following table illustrates the mean ratings for each behaviour on the internality dimension.

Table 19. Mean internality rating across each of the 6 types of behaviour ranked according to internality (n =76).

	Mean	SD	Range	Order ranked according to internality score (1- most external)
Destructive	5.2	2.86	0-10	1
Disruptive	5.0	2.74	0-10	2
Aggressive	4.67	2.96	0-10	3
SIB	4.19	2.78	0-10	4
Passive	3.79	2.8	0-10	5
Stereotyped	3.37	2.76	0-10	6

It can be seen from the above results that the outer-directed behaviours (aggressive, destructive and disruptive behaviour) were rated as more external than the inner-directed behaviours (self-injurious, stereotyped and passive behaviour).

A paired sample t-test examined whether the differences between the internality scores for the outer-directed compared to the inner-directed behaviours were significant. The results are shown in table 20.

Table 20. Paired sample t-test comparing internality attribution of outer-directed behaviours with inner-directed behaviours (n=76).

Comparisons	T score	Degrees of Freedom
Aggressive- SIB	0.72	42
Aggressive- Stereotyped	2.09*	42
Aggressive- Passive	1.08	37
Destructive- SIB	2.41*	41
Destructive- Stereotyped	3.17**	40
Destructive- Passive	1.92	35
Disruptive- SIB	2.6**	42
Disruptive- Stereotyped	3.32**	41
Disruptive- Passive	1.75	36

*significant at p<0.05 level, ** significant at p<0.01 level

From the above table aggressive, destructive and disruptive behaviour were found to be significantly different compared to stereotyped behaviour. Destructive and disruptive behaviour were found be rated significantly different than self-injurious behaviour.

Specificity Attribution

The table below shows the mean ratings for each behaviour on the specificity dimension.

Table 21. Specificity rating across each of the 6 types of behaviour ranked according to specificity (n=76).

	Mean	SD	Range	Order ranked according to specificity score (1- most specific)
Destructive	7.48	2.05	1-10	1
Disruptive	6.91	2.48	0-10	2
Aggressive	6.77	2.7	1-10	3
SIB	5.87	3.09	0-10	4
Passive	4.74	3.09	0-10	5
Stereotyped	4.0	3.21	0-10	6

From the above table it can be seen from looking at the mean ratings that aggressive, destructive and disruptive behaviour are rated as more specific than self-injurious, stereotyped and passive behaviour. Table 22 below shows which differences in means are significant.

Table 22. Paired sample t-test comparing specificity attribution of outer-directed behaviours with inner-directed behaviours (n=76).

Comparisons	T score	Degrees of Freedom
Aggressive- SIB	1.85	45
Aggressive- Stereotyped	4.1**	42
Aggressive- Passive	3.17**	37
Destructive- SIB	3.01**	42
Destructive- Stereotyped	6.24**	40
Destructive- Passive	4.6**	34
Disruptive- SIB	2.38*	44
Disruptive- Stereotyped	4.81**	42
Disruptive- Passive	4.98**	37

*significant at p<0.05 level, ** significant at p<0.01 level

As can be seen from the above table all comparisons were significant with the exception of aggressive behaviour compared with self-injurious behaviour.

Stability Attribution

Table 23 below shows the mean ratings for each behaviour on the stability dimension.

Table 23. Specificity rating across each of the 6 types of behaviour ranked according to stability (n=76).

	Mean	SD	Range	Order ranked according to stability score (1- most unstable)
Destructive	6.8	2.65	0-10	1
Disruptive	6.02	2.89	0-10	2 (joint)
Aggressive	6.02	2.93	0-10	2 (joint)
Passive	5.95	3.07	0-10	4
SIB	5.09	3.26	0-10	5
Stereotyped	3.98	3.19	0-10	6

It can be seen for this attributional dimension that aggressive, destructive and disruptive behaviour are rated as more unstable than self-injurious and stereotyped behaviour. Only aggressive, destructive and disruptive were rated as more unstable than passive behaviour. Table 24 shows which differences were significant.

Table 24. Paired sample t-test comparing stability attribution of outer-directed behaviours with inner-directed behaviours (n=76).

Comparisons	T score	Degrees of Freedom
Aggressive- SIB	1.84	44
Aggressive- Stereotyped	3.24**	40
Aggressive- Passive	0.19	38
Destructive- SIB	3.55**	42
Destructive- Stereotyped	4.91**	38
Destructive- Passive	1.32	36
Disruptive- SIB	1.88	42
Disruptive- Stereotyped	3.17**	39
Disruptive- Passive	0.2	37

*significant at p<0.05 level, ** significant at p<0.01 level

This illustrates that the three "outer directed" behaviours are rated significantly more unstable than stereotyped behaviour. Only destructive behaviour was rated significantly more unstable than self-injurious behaviour and none of the outer-directed behaviours were significantly different than passive behaviour.

Controllability Attribution

Finally, the following table indicates the mean ratings for each behaviour on the controllability dimension.

Table 25. Controllability rating across each of the 6 types of behaviour ranked according to controllability (n=76).

	Mean	SD	Range	Order ranked according to controllability score (1- most controllable)
Destructive	4.91	3.09	0-10	1
Disruptive	4.67	3.03	0-10	2
Aggressive	4.54	2.86	1-10	3
SIB	4.4	3.18	0-10	4
Passive	4.05	2.97	0-10	5
Stereotyped	3.34	2.74	0-10	6

It can be seen that for this dimension aggressive, destructive and disruptive behaviour are all rated as more controllable than self-injurious, stereotyped and passive behaviour. Table 26 shows which differences are significant.

Table 26. Paired sample t-test comparing controllability attribution of outer-directed behaviours with inner-directed behaviours (n=76).

Comparisons	T score	Degrees of Freedom
Aggressive- SIB	0.39	67
Aggressive- Stereotyped	2.85**	63
Aggressive- Passive	0.74	59
Destructive- SIB	1.84	67
Destructive- Stereotyped	4.94**	63
Destructive- Passive	2.25*	60
Disruptive- SIB	0.84	66
Disruptive- Stereotyped	4.14**	65
Disruptive- Passive	0.9	60

*significant at p<0.05 level, ** significant at p<0.01 level

The outer-directed behaviours were rated significantly more controllable than stereotyped behaviour. Only disruptive behaviour was rated significantly different to passive behaviour and none of the comparisons with self-injurious behaviour were found to be significant.

Overall, looking at the mean scores in tables 19, 21, 23 and 25 can be seen that the outer-directed behaviours were rated as more external, more specific, more unstable and more controllable than the inner-directed. However, only some of these differences were significant. All of the outer-directed behaviours were rated significantly different to stereotyped behaviour. However, for self-injurious and passive behaviour not all of the differences with the outer-directed behaviours were found to be significant.

3. Attributional Dimensions and Stress

In order to determine whether there is a relationship between the four attributional dimensions and stress a correlation matrix was analysed. Table 27 illustrates the correlations between the four attributional dimensions and stress in managing challenging behaviour using the Pearson product moment correlation.

Table 27. Pearson product moment correlations between attributional dimensions and stress in managing challenging behaviour (n=76).

	Total Internality Score	Total Specificity Score	Total Stability Score	Total Controllability Score	Total Stress Score
Total Internality Score		r = -0.22 n = 33	r = 0.24 n = 31	r = -0.56** n = 34	r = 0.02 n = 34
Total Specificity Score			r = -0.47** n = 31	r = -0.02 n = 34	r = -0.45** n = 33
Total Stability Score				r = -0.65** n = 34	r = 0.36* n = 33
Total Controllability Score					r = -0.34** n = 51

*p<0.05 **p<0.01

It can be seen from table 27 that the globality, stability and uncontrollability were significantly related to staff rating more stress. Internality was not found to be significantly related to stress.

<u>Topographies of Behaviour and Stress</u>

In order to examine which behaviours cause staff the most stress mean ratings were compared. Table 28 shows the mean ratings of stress in managing each of the types of challenging behaviour.

Table 28. Ratings of stress for each of the 6 types of behaviour ranked according to which behaviour causes the most stress (n=76).

	Mean	SD	Range	Order ranked according to stress score (1- most stressful)
Destructive	4.11	2.54	0-10	1
Aggressive	4.38	2.7	0-10	2
Disruptive	4.68	2.68	0-10	3
SIB	4.83	2.46	0-10	4
Passive	5.89	2.49	1-10	5
Stereotyped	6.32	2.37	0-10	6

From this it can be seen that destructive behaviour is rated as the most stressful to manage, followed by aggressive, disruptive, self-injurious, passive and lastly

stereotyped behaviour. The outer-directed behaviours are rated as more stressful than the inner-directed behaviours.

A paired sample t-test (shown in table 29) shows which differences are significant.

Table 29. Paired sample t-test comparing ratings of stress for the outer-directed behaviours compared with inner-directed behaviours (n=76)

Comparisons	T score	Degrees of Freedom
Aggressive- SIB	2.4*	71
Aggressive- Stereotyped	5.79**	70
Aggressive- Passive	4.62**	65
Destructive- SIB	2.24*	71
Destructive- Stereotyped	6.15**	70
Destructive- Passive	4.71**	65
Disruptive- SIB	0.47	71
Disruptive- Stereotyped	5.45**	70
Disruptive- Passive	3.74**	65

*significant at p<0.05 level, ** significant at p<0.01 level

It can be seen that the outer-directed behaviours are rated significantly more stressful than the inner-directed behaviours (with the exception of disruptive behaviour compared to self-injurious behaviour).

4. Stress and Coping Strategies

Participant's responses were categorised into seven categories for the stress responses and nine categories for the coping responses. Graphs 2 and 3 illustrate the percentage of times a response was reported from each category.

Graph 2. Reasons for staff stress

Graph 2. Reasons for staff stress
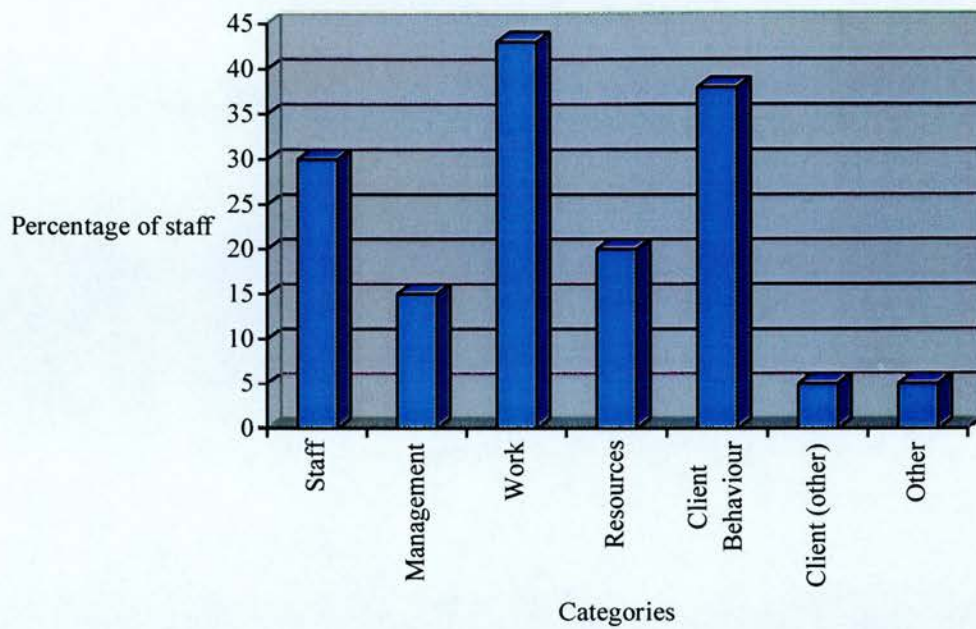
It can be seen from graph 2 that work issues (e.g. long hours, sleepovers, house crowded etc.) causes staff the most stress (reported by 43% staff) followed by client behaviour (e.g. dealing with aggression, being injured, being grabbed) which was reported as a source of stress by 38% of staff.

Graph 3. Coping mechanisms for staff
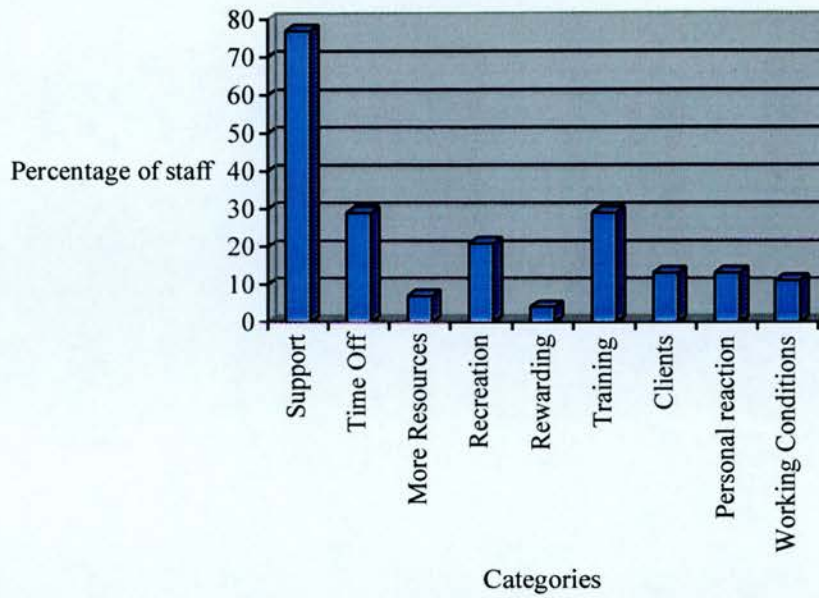
It can be seen from graph 3 that support from others (e.g. staff meetings, supervision, talking to family) was reported the most often (cited by 77%). Training (e.g. gaining more knowledge, going on courses) was the second most frequent response (cited by 29% of staff).

Secondary Hypotheses

5. Differences between groups

The second aspect of study one was comparing differences between groups. Differences between groups according to stress, experience and training were examined.

Differences between High and Low Stress Groups

To examine the differences between variables according to stress a dichotomous variable (high vs. low stress in managing challenging behaviour) was derived from a median split (cf. Chavira et al, 2000). Based on the approximate median rating staff

were assigned to high or low stress level. All further analyses were based on this dichotomous variable.

The median rating on the total stress score in managing challenging behaviour was 29. The low stress group was, therefore, any participants that received an overall stress score of 0-29 and the high stress group consisted of participants that scored from 30 to 60. Table 30 shows the demographic details of the two groups. Stress ratings were missing for ten participants and they were, therefore, missing from the analysis.

Table 30. Demographic details of staff in high and low stress groups (n=66).

	Total	Male	Female	Average Age	Average years experience	Previous Training	No Previous Training
Low Stress	37	27% (n=10)	73% (n=27)	39 (range 19-56, SD =12)	9 (range 0.5-30, SD=7)	49% (n=18)	51% (n=19)
High Stress	29	30% (n=8) (missing 2)	70% (n=19)	45 (range 27-63, SD=)	7 (range 0.5-30, SD=7)	60% (n=15) (missing 4)	40% (n=10)

An independent t-test indicated that there was a significant difference between the groups according to age ($t = 2.04$, $df = 58$, $p = 0.05$) with the low stress group younger than the high stress group. There were no significant differences between the groups according to gender, previous training or years experience.

Again after dividing the two groups variables were checked for normality. The only variable that was not normally distributed was number of days absent. Parametric analysis were, therefore, used to compare the two groups.

The two groups were compared on knowledge, attribution, confidence, support, satisfaction and mental health ratings using independent t-tests. Table 31 shows the significant results.

Table 31. Significant difference between high and low stress groups (n=66).

	High Stress Group Mean Rating	Low Stress Group Mean Rating	t value	Degrees of Freedom
Confidence (0=no confidence)	31.36 (SD=10.83)	42.68 (SD=11.36)	4.06**	62
Job Stress (0=very stressed)	4.61 (SD=2.02)	6.86 (SD=2.46)	4.01**	62
Job Satisfaction (0=not satisfied)	6.39 (SD=2.18)	8.31 (SD=1.63)	3.93**	63
Desire to leave Job (0=no desire to leave)	3.71 (SD=3.16)	1.79 (SD=2.23)	2.57**	57
Mental Health (0=no effect on mood)	8.43 (SD=5.81)	4.14 (SD=3.9)	3.34**	61

**p<0.01

It can be seen from the above table that the high stress group were less confident, more stressed, less satisfied, wanting to leave work more and rated more effect on their mood than the low stress group.

Both groups were also compared on attribution categories, reasons for stress and coping mechanisms. Some of the groups were too small (<5) and, therefore, significant differences between the high and low stress groups could not be computed using chi-square.

There were no significant differences between the high and low stress groups on the knowledge rating, any of the attribution ratings or support ratings.

Differences according to Experience

Difference according to number of years experience in learning disability services
Participants were divided into three groups depending on number of years experience. There was a range in the amount of experience in learning disability services that participants had ranging from 6 months to 30 years (missing data for 4 participants). In order to distinguish between years experience the groups were divided into 5-year bands for analysis. The groups for comparison were as follows:

Low Experience   0 to 5 years

Medium Experience   Between 5 and 10 years

High Experience   11 years and above

Five participants had not provided information for this question and were not included in the analysis.

Table 32. Demographic details of participants in three experience groups (n=72).

	Total	*Male*	*Female*	*Average age*	*Average years experience*	*Previous Training*	*No Previous Training*
Low Experience	*34*	*9% (n=3)* (missing 1)	*91% (n=30)*	*39 (range 19-59, SD=12)*	*2.7 (range 0.5-5, SD=1.6)*	*18% (n=6)* (missing 3)	*74% (n=25)*
Medium Experience	*21*	*43% (n=9)*	*57% (n=12)*	*44 (range 26-63, SD=12)*	*7.6 (range 5.5-10, SD=1.7)*	*52% (n=11)*	*48% (n=10)*
High Experience	*17*	*35% (n=6)*	*65% (n=11)*	*45 (range 28-58, SD=8.9)*	*17.6 (range 11-30, SD=6.1)*	*71% (n=12)* (missing 1)	*24% (n=4)*

A chi-square indicated that there was a significant gender difference in the level of experience (chi-square = 8.9, df = 2, p = 0.01). The three groups were then compared with each other to target exactly where the differences were. There was a significant gender difference between the low and medium experience groups (chi- square = 8.47, df = 1, p = 0.01). A greater proportion of females were in the low experience group. There was no significant gender difference between the medium and high groups.

A chi-square indicated that there was a significant difference in the training received between the three groups (chi-square = 14.54, df = 2, p= 0.00). The difference in whether the groups had received training was significant between low and medium groups (chi-square = 6.21, df = 1, p = 0.01). More of the untrained group were in the low experience group whereas more of the trained group were in the high experience group. There was no significant difference comparing the medium and high groups.

An unrelated one way analysis of variance (ANOVA) indicated that there was no significant differences in age between the groups (F = 1.88, df within groups=64, df between groups=2, p = 0.16).

As the variable of experience had been found not to be normally distributed, the three experience groups were analysed for their distribution and degree of normality. A Kolmogorov-Smirnov Test indicated that all 3 groups were normally distributed (Low Group: Z = 0.86, p = 0.46; Medium Group: Z = 1.01, p = 0.26; High Group: Z = 0.57, p = 0.9). In addition the variables were checked for distribution once the groups were divided. Kolmogorov- Smirnov Tests indicated that all variables were normally distributed in each group (with the exception of one: number of days absent sick was not normally distributed in the low and medium experience group). Parametric analyses were, therefore, assessed to be appropriate to compare these groups.

The data were analysed using an unrelated one-way analysis of variance (ANOVA). Table 33 shows the significant findings.

Table 33. Significant findings between experience groups using a one way ANOVA (n=72).

	Low Experience Mean Rating	Medium Experience Mean Rating	High Experience Mean Rating	F value	Degrees of Freedom within groups	Degrees of freedom between groups
Total Knowledge Score (0=little knowledge)	10.47 (SD=6.94)	11.9 (SD=5.59)	17 (SD=6.6)	5.83**	69	2
Knowledge about Learning Disabilities (0=little knowledge)	4 (SD=2.62)	5.05 (SD=2.29)	6.82 (SD=2.55)	7.17**	69	2

**p<0.01

Post hoc analysis of the knowledge variable using the Tukey HSD test was used to target exactly where the significant differences for experience were. It was found that there was a significant difference between the high experience group and both

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the low experience (difference in means = 6.53, SE = 1.93, p = 0.01) and medium experience groups (difference in means = 5.1, SE = 2.12, p = 0.05) .

Post hoc analysis of the knowledge about learning disabilities using the Tukey HSD test indicated that the low experience group was significantly different in rating knowledge about learning disabilities than the high experience group (difference in means = 2.82, SE = 0.75, p = 0.01).

Related to experience (number of years working in learning disability services) is whether staff have experience with specific forms of challenging behaviour. Variables were also analysed between those staff that had stated that they worked with each of the topographies of challenging behaviour and those that had not. Hypotheses 5f), g) and h) also apply for these comparisons.

Differences between participants with experience of challenging behaviour and those without experience

Experience with Aggressive Behaviour

As already noted 88% (n = 67) staff stated that they had experience working with aggressive behaviour and 12% (n = 8) had no experience. Five staff had not responded to this question. Variables related to aggressive behaviour (attributional dimensions about aggressive behaviour, stress in managing aggression and confidence in working with aggression) were compared between the two groups. The following results were found to be significant using an independent t-test and are shown in table 34.

Table 34. Significant findings comparing staff with experience of aggressive behaviour and staff with no experience (n=75).

	Experienced group Mean rating	Inexperienced group Mean Rating	t value	Degrees of Freedom
Controllability of aggression (0=little control)	4.22 (SD=2.61)	7.4 (SD=3.78)	2.54**	66
Confidence in managing aggression (0=no confidence)	5.83 (SD=2.15)	3.5 (SD=3.3)	2.73**	72

**p<0.01

It can be seen from the above table that experienced staff rated aggressive behaviour as less controllable and were more confident in managing aggressive behaviour.

Experience with Self-Injurious Behaviour

Fifty-eight staff (76%) had previous experience with SIB and 15 (24%) had not. Three participants had not answered this question. The following significant differences between groups are shown in table 35.

Table 35. Significant findings comparing staff with experience of self-injurious behaviour and staff with no experience (n=73).

	Experienced group Mean rating	Inexperienced group Mean Rating	t value	Degrees of Freedom
Confidence in managing self-injury (0=no confidence)	6.07 (SD=2.37)	3.53 (SD=2)	3.8**	70

Experience with Destructive Behaviour

Fifty-nine percent of the sample reported that they work with destructive behaviour (n = 45) and 41% (n = 26) reported they do not. Five participants did not indicate either way. The following significant differences between groups were found and are shown in table 36.

Table 36. Significant findings comparing staff with experience of destructive behaviour and staff with no experience (n=71).

	Experienced group Mean rating	Inexperienced group Mean Rating	t value	Degrees of Freedom
Confidence in managing destructiveness (0=no confidence)	6.33 (SD=2.41)	4.04 (SD=2.13)	3.97**	68

**p<0.01

Experience with Disruptive Behaviour

The majority of the sample had experience with disruptive behaviour (82%, n = 62) and 18% (n = 12) had not. Two participants did not indicate whether they had experience.

There were differences in means between those that had worked with disruptive behaviour or not on attributional dimensions about disruptive behaviour, stress in working with disruptive behaviour and confidence in managing disruptive behaviour but these did not reach significance.

Experience with Stereotyped Behaviour

Fifty-eight participants (76%) had experience with stereotyped behaviour and 16 (44%) did not. Two participants did not indicate whether they had experience.

There were differences in means between those that had worked with stereotyped behaviour or not on attributional dimensions about stereotyped behaviour, stress in working with stereotyped behaviour and confidence in managing stereotyped behaviour but these did not reach significance.

Experience with Overly Passive Behaviour

The percentage of staff who had experience with overly passive behaviour was 67% (n = 51) and 33% (n = 22) had no experience of that behaviour. Three participants did not respond to that question.

Again, there were differences in means between those that had worked with passive behaviour or not on attributional dimensions about passive behaviour, stress in working with passive behaviour and confidence in managing passive behaviour but these also did not reach significance.

Difference according to Previous Training

Participants were divided into two groups for this analysis depending on whether they had indicated that they had received previous training in challenging behaviour or not. Forty percent (n=30) indicated that they had received previous training and 53% (n=40) reported that they had never received any training. Six participants had not completed that question.

The demographic details of these groups are shown in table 37.

Table 37. Demographic details of participants in training groups (n=70).

	Total	Male	Female	Average age	Average years experience
Trained	30	60% (n=18)	40% (n=12)	41.8 (range 25-29, SD=11.1)	12.3 (range 3-30, SD=7.7)
Untrained	40	12% (n=5)	88% (n=35)	41.4 (range 19-63, SD=12.5)	4.5 (range 0.5-14, SD=3.5)

Chi-square analysis showed that there was a significant gender difference between the trained and untrained group (chi-square = 7.05, df = 1, p = 0.01) with a larger proportion of the men in the trained group and a greater proportion of women in the untrained group. There was also a significant difference in the number of years experience between the two groups using an independent t-test (t = 5.59, df = 66, p= 0.01). There was no significant difference in ages between the trained and untrained group.

The two groups were checked for normality again using a Kolmogorov-Smirnov test (see Appendix). All items were normally distributed except days absent sick. Parametric analyses were, therefore, used to compare the two groups.

Independent t-tests were employed to analyse significant differences between the trained and untrained groups on knowledge, attributions, stress, confidence, support and satisfaction. The following significant results were found, shown in table 38.

Table 38. Significant findings between trained and untrained groups (n=70).

	Trained group Mean rating	Untrained group Mean rating	t value	Degrees of Freedom
Total Knowledge Score (0=little knowledge)	16.8 (SD=4.86)	9.23 (SD=6.49)	5.31**	68
Total Mental Health Score (0=little effect on mood)	8.81 (SD=5.6)	5.38 (SD=4.86)	2.64**	64

**p<0.01

It can be seen from table 38 that the trained group rated their knowledge as higher and their job had more effect on their mental health compared to the untrained group.

STUDY TWO

6. Differences following an introductory course on challenging behaviour

Study two investigated the effects of training in challenging behaviour on the variables measured. As reported above there were differences in some of the measures depending on whether staff had received previous training or not. There was no measure, however, of what the training consisted of. For this part of the study the questionnaire was used with one training package to investigate changes following a specific training programme.

Training Groups

Four groups of social care staff completed the training, which was shown earlier in Table 6.

There were no significant differences between groups in age or experience using a one way ANOVA. It was not possible to analyse differences in gender between groups, as the number of males was less than 5 in some groups, therefore, the chi-square analysis could not be computed.

As there were no apparent significant differences between groups and all four groups received the same training programme delivered by the same teachers, the sets of scores were combined to give a profile of scores for the full sample.

<u>Differences in measures immediately following training</u>

The mean ratings pre and post training for knowledge, attribution, confidence and stress ratings can be seen in table 39 .

Twenty-one staff put "same as before" on many of the post-training ratings, therefore, when analysing the post training data for some measures there were a smaller number of data available for comparison.

Table 39. Mean knowledge, attribution, confidence and stress ratings pre and post training (n=36).

	Mean Pre-Training Rating	**Mean Post-Rating Rating**
Total Knowledge Score (0=little knowledge)	12.92 (SD = 7.04, n = 36)	18.14 (SD = 7.29, n = 36)
Total Internality Score (0=internal)	26.19 (SD = 11.95, n = 16)	26.69 (SD = 12.22, n = 16)
Total Globality Score (0=global)	36.5 (SD = 11.95, n = 16)	35.69 (SD = 12.81, n = 16)
Total Stability Score (0=stable)	39.4 (SD = 11.75, n = 15)	38.8 (SD = 14.56, n = 15)
Total Controllability Score (0=uncontrollable)	26.42 (SD = 14.62, n = 24)	28.67 (SD = 14.83, n = 24)
Total Confidence Score (0=no confidence)	40.17 (SD = 11.99, n = 29)	39.86 (SD = 10.45, n = 29)
Total Stress Score (0=very stressed)	33.81 (SD = 13, n = 26)	34.88 (SD = 12.78, n = 26)

The above table illustrated that knowledge scores increased, the ratings were slightly more external, slightly more specific, marginally more stable and more controllable. Confidence and stress decreased slightly.

Paired sample t-tests comparing pre vs. post training measures indicated whether there were any significant differences. Knowledge ratings were found to be rated as significantly higher following training than before training ($t = 5.66$, $df = 35$, $p = 0.01$). The overall knowledge score consists of knowledge about learning disabilities, challenging behaviour and managing challenging behaviour. The mean ratings for these measures and results of a paired sample t-test for these measures can be seen in table 40.

Table 40. Mean ratings and paired t-tests for knowledge scores pre and post training (n=36).

	Mean Pre-Training Rating	Mean Post-Rating Rating	t value	Degrees of freedom	Significance
Knowledge about Learning Disabilities (0=little knowledge)	4.89 (SD = 2.63)	6.25 (SD = 2.39)	3.84	35	0.01
Knowledge about Challenging Behaviour (0=little knowledge)	4.19 (SD = 2.69)	6.14 (SD = 2.55)	5.6	35	0.01
Knowledge about Managing Challenging Behaviour (0=little knowledge)	3.83 (SD = 2.36)	5.75 (SD = 2.64)	4.62	35	0.01

Again, as above when analysing the post training data for the written responses for causal attributions, stress and coping strategies, only a small number (n=15) of pre and post measures could be compared due to non-completion of measures by some participants. Graphs 4, 5 and 6 show the attributions, reasons for stress and coping strategies reported by participants pre and post-training and at follow up.

A McNemar test analysed whether there had been any significant changes in staff responses comparing the categories cited pre and post-training for the attributions, stress and coping measures. Only the causal attribution "communication deficit" changed significantly before and after training. Three participants reported communication deficit as a cause of behaviour both before and after and 6 participants did not mention that category either both or after but six participants mentioned that category before and then did not mention it afterwards. The McNemar test indicated that this change was significant at the p = 0.03 level. None of the stress or coping categories mentioned changed significantly after training.

Pre-training measures were compared to follow up measures taken 6-8 weeks later to illustrate whether there the changes made after training were maintained. Comparison with follow up measures may give a more accurate picture of whether there were any changes following training as many of the post training questionnaires were not completed fully.

Comparison with Follow Up Measures

Table 41 shows the changes in ratings comparing pre-training measures with follow up measures. As with the post-training measure some questions (between 5 and 13) were not completed and a smaller number of comparisons were made.

Table 41. Mean knowledge, attribution, confidence and stress ratings pre-training and follow up (n=24).

	Mean Pre-Training Rating	Mean Follow Up Measure
Total Knowledge Score (0=little knowledge)	12.13 (SD = 7.58, n = 24)	18.71 (SD = 4.41, n =24)
Total Internality Score (0=internal)	24 (SD = 13.27, n = 11)	27.82 (SD = 14.09, n = 11)
Total Globality Score (0=global)	37.91 (SD = 12.39, n = 11)	30 (SD = 12.8, n = 11)
Total Stability Score (0=stable)	36.64 (SD = 15.13, n = 11)	24 (SD = 16.83, n = 11)
Total Controllability Score (0=uncontrollable)	23.77 (SD = 14.84, n = 17)	30 (SD = 16.17, n = 17)
Total Confidence Score (0=no confidence)	42.05 (SD = 9.54, n = 19)	45.95 (SD = 7.84, n = 19)
Total Stress Score (0=very stressed)	34.44 (SD = 11.82, n = 18)	33.72 (SD = 10.33, n = 18)

Overall, by looking at table 41 it can be seen that the measures at follow up compared to pre-training showed that: knowledge increased, the ratings on the attributional dimensions were more external, more specific, more unstable, and more controllable, confidence increased and stress increased slightly.

Only the change in knowledge score from pre-training to follow up was significant using a paired t-test (t = 4.25, df = 23, p = 0.01).

Graph 4 illustrates the attribution categories and the percentage of staff indicating a response in each category pre-training, post-training and at follow up.

Graph 4. Attributions before and after training and follow up
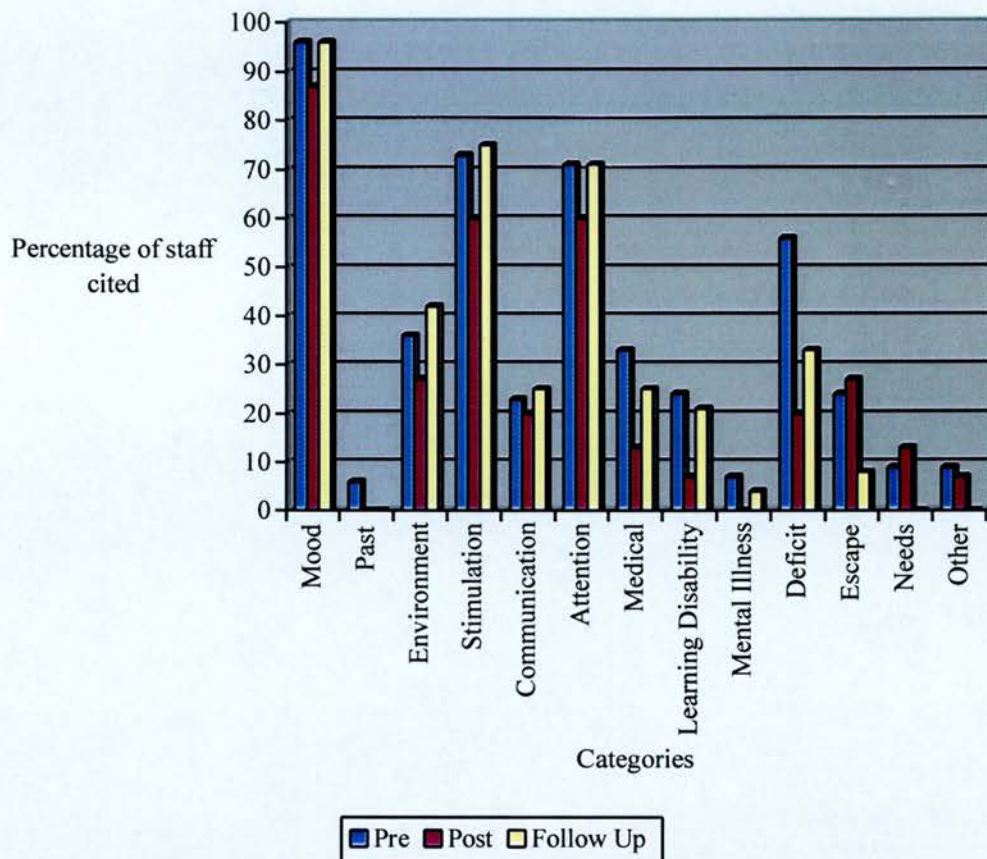
The deficit category was the only one that changed significantly between pre-training and follow up. Six staff mentioned it both times, 6 staff did not mention it either time and 10 staff did mention it pre-training and did not mention it at follow up. The McNemar test indicated that this was significant (p = 0.01).

The sources of stress cited by staff did not change significantly from prior to training to follow up. Recreation and training as a coping strategy did change significantly at follow up. Two staff said that they used recreation activities as a coping strategy before training and at follow up, nine staff did not mention it either time, eight mentioned recreation at follow up and had not said it before and one staff said it

before but not at follow up. The McNemar test indicated that this was significant at the p = 0.04 level. Training as a coping mechanism changed significantly after training. One participant mentioned training before and at follow up, 13 did not mention it either time and 6 said training was a source of coping before training and did not mention it 6-8 weeks later. This was significant using the McNemar test at the p = 0.03 level. Graphs 5 and 6 show the stress and coping categories stated at the three time scales.

Graph 5. Reasons for staff stress before, after training and at follow up
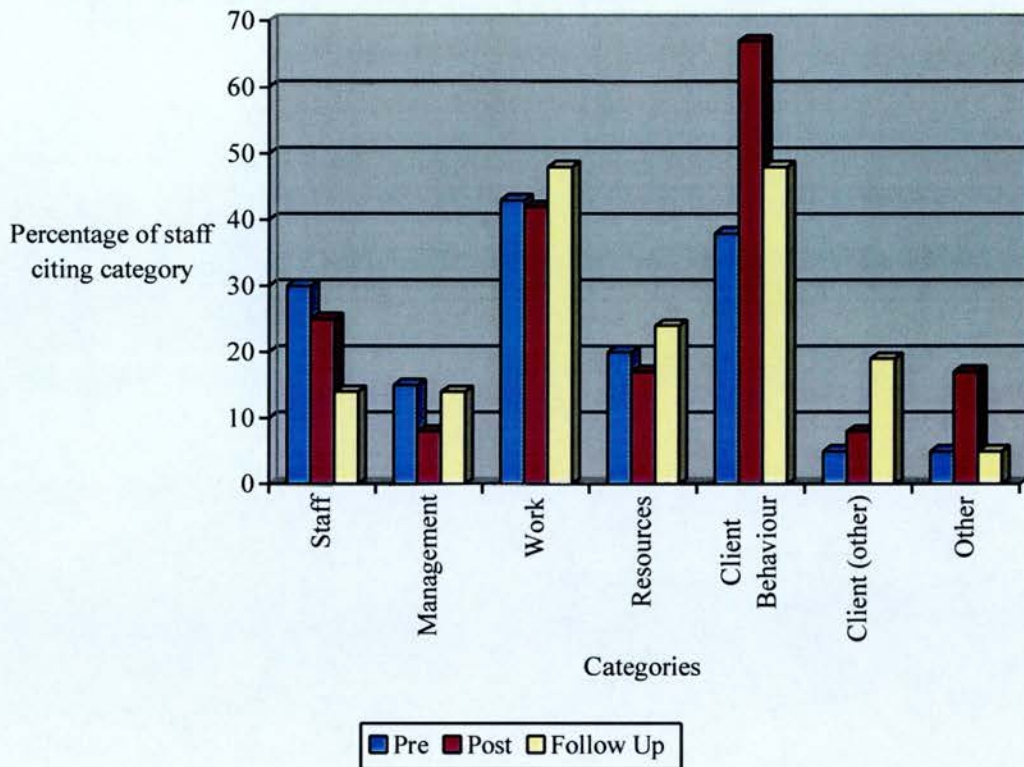
Graph 6. Coping mechanisms before, after and at follow up

Percentage of staff citing category

Categories

Pre Post Follow up
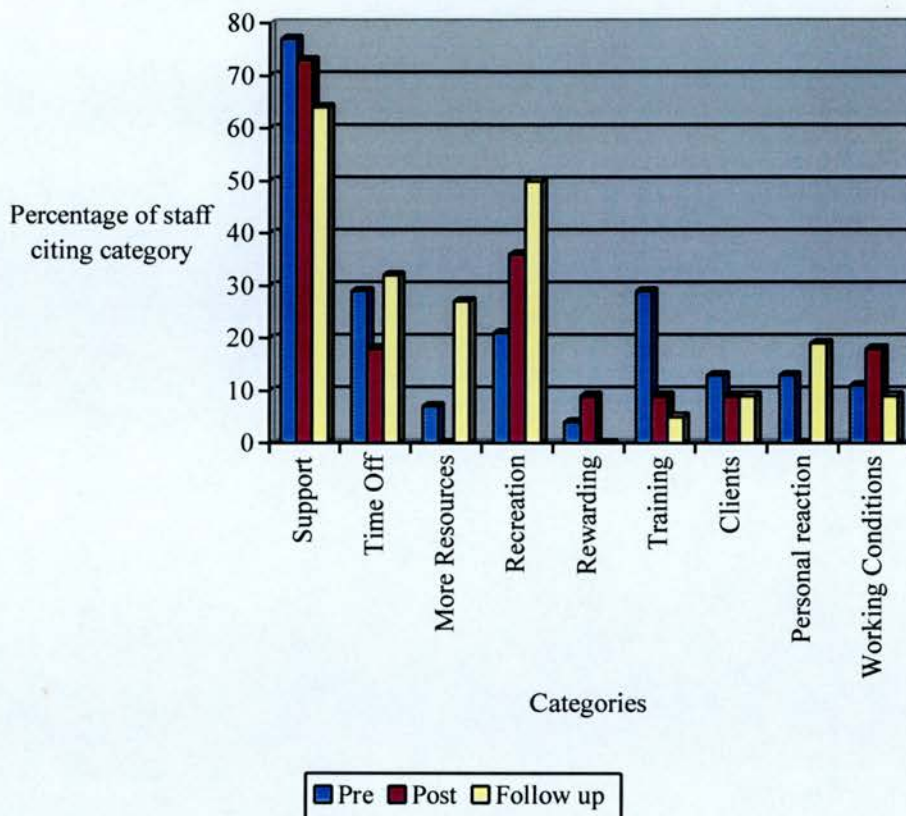
Evaluation of Training

To add qualitative information to the study participants in training were asked to complete an evaluation form following the training day. The results of the evaluation are shown in table 42.

Table 42. Evaluation of training by participants (n=39).

Question	Results		Comments
1. Was the course:	Too long? Just right? Too short?	0% 92% (n = 36) 8% (n = 3)	"a lot to take in, but very interesting", "learned a lot", "would prefer it spread over a longer time", "very good course"
2. Were the topics:	Very relevant? Quite relevant? Irrelevant?	82% (n = 32) 18% (n = 7) 0%	"it was interesting to put the topics into practice", "very informative", "well covered subjects", "a lot of good information"
3. Was the language:	Too difficult? Just right? Too easy?	0% 100% (n = 39) 0%	"understood well what was being said and explained good", "easy to understand", "great, not too technical", "most of the time, but sometimes too difficult".
4. Were the activities:	Very helpful? Quite helpful? Unhelpful?	67% (n = 26) 33% (n = 13) 0%	"role playing was very good and helped in understanding what was going on", "have a better understanding of behaviour problems", "I do not always work that well in a group", "made it easier to understand by looking at examples and scenarios"
5. Which (if any) topics should we miss out?	None	100% (n = 39)	
6. Which (if any) topics do we need to include?	None Specific info on situation 3% (n=1)	97% (n=38)	"most topics talked about", "more on aggressive behaviour", "good mix", "everything covered"
7. Was the handout:	Very useful? Quite useful? Useless? 0%	92% (n = 36) 8% (n = 3)	"good to get a handout"
8. Was the quality of the presentation:	Good? Quite good? Poor?	92% (n = 36) 8% (n = 3) 0%	
9. Any other comments?			"interesting course", "gave me a good understanding of challenging behaviour", "enjoyed the course, felt as if everyone was on the same wavelength", "the course has been very good, it has given me a greater insight into challenging behaviour", "it was very informative and useful as I had not had any other knowledge or courses on challenging behaviour", "fine, confirmatory, as well as enlightening.

Summary of Findings

In summary, the main findings of the study illustrated in the above results were as follows:

Questionnaire Design

- The questionnaire developed for the study was considered to be a reliable and valid measure of attributions and stress. The scoring criteria were also considered reliable.

- Piloting of the questionnaire found that it measured what it aimed to measure and in an acceptable format for analysis.

Key Hypotheses in Study One:

- Hypothesis one that predicted that staff would be able to offer a range of explanations of the causes of challenging behaviour was confirmed. The results indicated that a range of reasons were reported for causes of challenging behaviour. The main reasons cited were mood, stimulation and attention. The reasons varied according to the type of behaviour.

- Hypothesis two that the outer-directed behaviours would be rated as more controllable, more unstable, more specific and more external than the inner-directed behaviours was partially confirmed. All of the externally-directed behaviours were rated significantly different on all four attributional dimensions compared with stereotyped behaviour. Comparing the externally-directed behaviours to self-injurious and passive behaviour found that only some of the ratings were significant.

- Hypothesis 3a) that controllability would be related to stress was not accepted. The opposite result was found that uncontrollability was related to greater stress.

- Hypothesis 3b) that stability would be related to stress was confirmed in the results.

- Hypothesis 3c) that globality would be related to stress was also confirmed in the results.

- Hypothesis 3d) that the more behaviour was rated as internal the more stress staff would rate was not accepted. No significant relationship was found between these variables in the results.

- Hypothesis 3e) which predicted that the outer-directed behaviours would be rated as more stressful to manage than the inner-directed behaviour was partially confirmed. All of the outer-directed behaviours were found to be significantly different to the inner-directed behaviours with the exception of disruptive behaviour compared to stereotyped behaviour.

- Hypothesis 4a) that staff would report a range of stressors associated with their work was confirmed. The results indicated that staff reported work issues, client behaviour and staff issues as the most stressful things about their job.

- Hypothesis 4b) that staff would also report a range of coping strategies was also confirmed. The results indicated that staff cited support from others, training and time off as the main ways of coping in their job.

Secondary Hypotheses in Study One:
- Hypothesis 5a) that staff under greater stress would rate behaviour as more stable, global, internal and controllable was not confirmed in the results.

- Hypothesis 5b) that staff in the high stress group would rate job stress higher, job satisfaction lower and desire to leave the job greater was accepted.

- Hypothesis 5c) that staff in the high stress group would be less confident in their management of challenging behaviour was accepted.

- Hypothesis 5d) that staff that rated their stress as higher would rate support lower than the lower stress group was not supported in the results.

- Hypothesis 5e) that staff in the higher stress group would rate a higher score on mental health measures than staff in the lower stress group was confirmed in the results.

- Hypothesis 5f) that experienced staff would rate knowledge as greater than inexperienced staff was supported in the results.

- Hypothesis 5g) that staff with more experience would rate attributional dimensions differently than inexperienced staff was not accepted overall. Only staff that had

experience of aggressive behaviour rated controllability significantly than staff with no experience of that behaviour.

- Hypothesis 5h) that stress and confidence would be rated differently depending upon experience was partially confirmed. Those that worked with aggressive, self-injurious and destructive behaviour all rated their confidence significantly greater than those staff that had no experience of those behaviours. There were no significant differences in ratings of stress.

- Hypothesis 5i) that trained staff would rate knowledge as greater than untrained staff was supported in the results.

- Hypothesis 5j) that trained staff would rate attributional dimensions differently than untrained staff was not found in the results.

- Hypothesis 5k) that trained stress and confidence would be affected by training was not confirmed overall. Trained staff reported that their mental health was more affected by the job, indicating more stress compared to untrained staff.

<u>Study Two:</u>

- Hypothesis 6a), which predicted that knowledge would increase following training, was supported. The results found that ratings of knowledge significantly increased immediately after training and was maintained at follow-up.

- Hypothesis 6b) that stress and confidence would change following training was not found in the results.

- Hypothesis 6c) that ratings attributions would be more external, specific, unstable, and controllable after training was not confirmed in the results.

DISCUSSION

The results of study one will be discussed in relation to the literature and clinical implications of the findings are discussed. Methodological limitations and problems with study one will then be discussed. The main findings from study two and methodological problems will then be reported. Finally conclusions from the study, clinical implications of the research and suggestions for future research are explored.

Discussions of Results

Study One

The group of staff participating in study one and two was considered representative of people working with clients with learning disabilities in the UK (cf. Allen, Pahl and Quine, 1990) in the following terms: a larger number of female than male staff and a mixture of new and relatively inexperienced staff and some who had many years experience. Ninety-nine percent of participants had some experience of some form of challenging behaviour, which is consistent with other reports of challenging behaviour (e.g. Jenkins et al., 1997 found that 80% of staff reported experience of challenging behaviour). Experience of specific forms of challenging behaviour also matches that found in previous research (e.g. 88% of participants in the current study had experience of aggression which is comparable to 82% in the Murray et al., 1999 study).

Causal attributions about challenging behaviour

A growing body of literature has found that the constructs employed by care staff to make sense of a person's challenging behaviour can have a substantial impact upon their behaviour towards the person (e.g. Hastings and Remington, 1994; Hastings, Remington and Hopper, 1995). Carers' attributions about challenging behaviour can exert a crucial effect on their helping behaviour. Interventions are often based on hypotheses about the causes of behaviour and causal attributions are of central importance for staff to decide on an appropriate intervention.

The present study found that a range of reasons were volunteered for challenging behaviour by staff which closely match those found in other studies (e.g. Bromley and

Emerson, 1995; Heyman et al., 1998; Hastings, 1995). Staff in the present study had a rich conceptual framework for understanding challenging behaviour and their beliefs about the causes of challenging behaviour were congruent with contemporary models of causation of challenging behaviour. The present data indicated that the most commonly held beliefs about the causes of challenging behaviour concerned the individual's internal psychological state or mood and concerned factors over which staff may feel they have little control. This was consistent with other findings (e.g. Bromley and Emerson, 1995 also found internal state to be the most frequently cited cause of challenging behaviour). Communicative functions were mentioned by a large proportion of staff, and many expressed the view that challenging behaviour may be viewed as a communication problem/deficit or that the person was trying to communicate something. Other explanations focused on events that could trigger challenging behaviour (e.g. aspects of the current environment such as noise or crowds, medical problems such as pre-menstrual tension or pain, aspects of a person's condition such as epilepsy or basic needs such as being hungry or tired). Staff also reported some possible reinforcing functions of challenging behaviour such as escape or avoidance from a task or demands or attention seeking behaviour.

The findings of the study indicated that staff reported functions of both immediate establishing operations (such as noise or too many people), more distant setting events (e.g. lack of sleep) and certain consequences as reinforcers of behaviour (e.g. gaining attention, demands removed). This is in contrast to other research which has found that staff generally avoid interpersonal explanations which reference their own actions (Heyman et al., 1998) or do not note possible reinforcing functions (Hastings, 1995). Participants in the current research also offered multi-causal explanations (between 39-75% of staff in the current study offered three reasons for each form of challenging behaviour, in contrast to other research which has found that staff tended to offer mono-causal explanations (e.g. Heyman et al., 1998). However, the current research asked participants to offer three possible reasons for each topography of challenging behaviour, which may account for these findings. Heyman et al. (1997) reported that behaviour which service providers classify as challenging requires complex, multi-causal explanation.

<u>Causal attributions regarding different topographies of behaviour</u>

There were differences in causal attributions according to the behaviour displayed and staff clearly were able to differentiate between different topographies of behaviour and causal factors. Internal state was the most frequent reason attributed for aggressive, self-injurious, destructive, disruptive and passive behaviour, but the second and third most frequent responses for each behaviour varied depending on the behaviour (e.g. aggressive behaviour was also frequently cited as being due to a lack of communication skills and the environment, whereas self-injurious behaviour was frequently reported to be due to self stimulation and attention seeking). The results showed that stereotyped behaviour was seen slightly differently to other forms of behaviour. Stereotyped behaviour was attributed most frequently as a form of self-stimulation and also relatively frequently ascribed to the person's learning disability or syndrome. The theoretical literature on challenging behaviour has most often described stereotypy as a stimulatory activity (Hastings, 1996). The present findings are consistent with Hastings et al. (1995) and Hastings et al. (1997) who found that the topography of behaviour affected the causal attributions made. In the Hastings et al. (1995, 1997) studies stereotypy was viewed as a stimulatory activity, whereas self-injurious behaviour and aggression were thought more likely to be caused by social and emotional factors. This finding also supports that of Bromley and Emerson (1995) who found that more serious challenging behaviours were more likely to be attributed to the person's internal psychological state, while less serious behaviours were more likely to be seen as self-stimulatory.

<u>Investigation of experience and training on causal attributions</u>

There were little differences between any of the groups studied (experience, previous training and stress) in terms of explanations of challenging behaviour and all groups compared reported a similar range of responses, and distinguished between different topographies in terms of their causes. Both the experienced/previously trained staff and inexperienced/untrained staff rated causes of challenging behaviours in a way that matched well with existing causal models of challenging behaviour. This is similar to Hastings et al. (1995) who found experienced and inexperienced staff reported a

similar range of responses. His research, however, found a difference in the way the beliefs were organised with experienced staff reporting more aspects of behavioural models and the inexperienced group reflecting more emotional and environmental antecedents. They also found that inexperienced participants did not distinguish as clearly between different topographies of behaviour. Hastings et al. (1997), however, in a community study found that attributions about different behavioural topographies were not related to factors such as experience.

Summary of causal attributions about challenging behaviour

In summary, staff in the current study reported a diverse range of reasons for challenging behaviour, were able to differentiate in terms of the behaviour in question and their responses fitted well with contemporary models of challenging behaviour and were consistent with previous literature. There were little differences in terms of previous training, experience or levels of stress on attributions made.

Clinical Implications

A clinical implication of this finding was that staff were aware, to an extent, of models of causation of challenging behaviour. Relatively inexperienced and untrained staff were equally able to offer a range of appropriate reasons for behaviour. Thus, the results of the current study did not support the argument that staff require in-depth training in this area and are already quite knowledgeable. Hastings et al. (1997) suggested that there are aspects of service environments (formal and informal) which may provide models for staff to use in their work and may have provided this knowledge base.

Challenging Behaviour and Controllability, Stability, Internality and Specificity

A further area of enquiry relevant to staff perceptions of the nature of challenging behaviour related to questions such as intentionality and controllability (i.e. attributional dimensions). In terms of challenging behaviour, we may predict that carer's helping will vary according to their causal attributions. The extent to which behaviour is felt to be intentional or controllable has an additional influence on helping behaviour and intervention. Hastings (1995) found that 74% of staff in his study felt

that challenging behaviour was an intentional act, which may affect the resulting intervention independently of the perceived cause of the behaviour. Hastings (1995) reported that:

> As a result of this view, that clients "know where they are going", they may be blamed for their actions, rather than being understood as victims of certain environmental (and internal) problems...The notion of intentional behaviour may bring societal models of punishment/correction into play (p307).

The present study explored attributional dimensions of controllability, globality, stability and internality with respect to challenging behaviour. The results indicated that staff rated the externalised behaviours (aggression, destructive and disruptive behaviour) to be more controllable by the individual, more unstable, more specific and more external than the internalised behaviours (self-injurious, stereotyped and passive behaviour). The results, therefore, confirmed the prediction of the differential effects of topography on dimensional ratings. The present results were consistent with findings in the Stanley and Standen (2000) study, who found that control was perceived to be greater with aggressive challenging behaviour and stability was perceived to be greater with self-injurious behaviour than aggression or destructiveness. Chavira et al. (2000) also found that parents rated outer-directed behaviours, such as tantrums, as more controllable than inner-directed behaviours.

Summary of challenging behaviour and attributional dimensions

In summary, the present study found that there was a differential effect of topography of behaviour on ratings of controllability, globality, stability and internality. The outer-directed behaviours were perceived differently to the inner-directed behaviours in terms of attributional dimensions. The findings were consistent with the previous literature.

Clinical Implications

The type of behaviour displayed by a client appeared in this study to affect the degree to which staff rated it as internal to the person, controllable by the person, likelihood of change and what situations it is likely to happen in. Staff are, therefore, not viewing

challenging behaviours as solely due to the client's learning disability or condition as there was variability in attributional ratings offered. Staff were also not generally perceiving clients as responsible for their behaviour. This has clinical implications in terms of intervention and propensity of staff to offer help. Other studies have shown that control was related to less propensity of staff offering help and less optimism about intervention (Dagnan et al., 1998; Stanley and Standen, 2000). If outer-directed behaviours are perceived to be more controllable by the individual then this has implications for the success of interventions. For an intervention or training programme to be successful trainers should, therefore, take this into account and examine staff beliefs about issues like perceived controllability and be aware of the influence that this has on optimism about intervention.

Challenging Behaviour, Attributional Dimensions and Stress

Attributions may affect how behaviour is dealt with and how it makes staff feel. Following Weiner (1986) it was assumed that attributions may have a causal bearing on emotional reactions, which in turn impacts, upon helping behaviour. In the Sharrock et al. (1990) study participants were asked to rate one known patient's behaviour on attributional dimensions and to rate their emotions (anger, disgust, sympathy and pity) and a rating of their desire to help the person in question. They found that there was little evidence to support the view that arousal (as assessed by the emotional ratings) was associated with helping and rather attributions appeared to be the basis of expectations of intervention being successful. They found that attributions towards unstable factors were associated with higher staff optimism and attributions of controllability were negatively associated with optimism. In the Stanley and Standen (2000) study, perceived control correlated positively with negative affect and negatively with positive affect. They also found a significant positive relationship between affect and helping behaviour. Thus, the more outer-directed the client's challenging behaviour, the greater the carers' attribution of control and negative affect and the less the propensity to help and the more self-directed the challenging behaviour, the greater the attribution of stability, positive affect and propensity to help. The present research explored stress rather than emotion.

In the present study attributions were explored in terms of their influence upon stress that staff report they felt in managing challenging behaviour. The results indicated that the externalised behaviours were perceived to be more stressful to manage than the internalised behaviours. This finding matches similar results found when carers were asked to describe emotions they expected they would feel on encountering a person with different types of behaviour. In the Hastings and Remington (1995) study affect was influenced by the type of behaviour described (e.g. aggression was associated more with negative emotions than stereotypy).

The relationship between attributional dimensions and stress was explored. Staff in this study rated that the more stable a behaviour was (i.e. unlikely to change) and the more global a behaviour was (i.e. happens across all situations) the more stressed they felt. Internality (whether the behaviour was felt to be due to something about the person or something external in the environment) was not significantly related to stress at all in the present study.

One result, which was the opposite pattern to that hypothesised, was the relationship between controllability and stress. The more uncontrollable a behaviour was perceived to be, the more stressful staff found it to manage. This finding was in contrast to the findings by Dagnan et al. (1998) and Stanley and Standen (2000) who found that when it was inferred that an individual has control over their behaviour (intended to behave that way) that staff experienced more negative emotions, less positive emotions and negatively evaluated the person. From this it was hypothesised that experiencing negative emotions and negative evaluations would be related to staff feeling more stressed. However, others have found that situations seen as uncontrollable are perceived as more stressful (Averill, 1973; Thompson, 1981).

There are at least three possible explanations to explain this finding. Firstly, the current sample may not have been typical of people in previous observational and self-report research. However, the data do suggest that they are typical, at least with respect to their self-reports about beliefs about challenging behaviour. Secondly, it is possible that staff in the present study also experienced negative affect and evaluated

behaviour negatively (as found in previous studies) when it was felt that the individual has control. However, this may not directly cause them stress in managing the behaviour. Stress may be unrelated to emotion and evaluation of the behaviour. However, it has been shown in other research that experiencing negative emotions on a regular basis can be stressful (Jenkins et al., 1997). Thirdly, and more likely, stress may be related to other factors other than control. Stress has been shown in other studies to be related to unpredictability and hopelessness (Bromley and Emerson, 1995). If a behaviour is perceived as uncontrollable, it may be perceived to be more unpredictable because if the individual is thought to have little self-control, it may be seen as happening more "out of the blue". A sense of hopelessness may also arise if behaviour is felt to be under little control of the individual, implying that little can be done to help the person. An implication of this is that staff may feel they have little to offer the person in terms of intervention and help in remediating the behaviour. An example that supports this argument was a response to challenging behaviour by one participant in the Hastings (1997) study:

> If they were uncontrollable and likely to injure themselves or attack another resident or staff, then immediately restrain them (p308).

In the present study staff were also more likely to feel stressed if the behaviour was thought to be stable (implying that the behaviour is less likely to change) and global (happens irrespective of the situation). This would support the argument that hopelessness and the lack of interventions available to staff caused staff most stress. If a behaviour is felt to be unlikely to change, to happen across all situations and not be under the client's control, then staff intervention is likely to be viewed as futile and non-effective, thereby causing more stress.

The extent to which behaviour was "wearing" over time was cited as a significant source of stress (by 75% of participants) in the Bromley and Emerson (1995) study. Behaviour being "wearing over time" suggests that behaviour does not change and happens across many situations. This would fit with the dimensions of globality and stability, which were found to be related to stress in the present study.

Individual control over behaviour was also negatively related to internality and to stability in the present study. The more self-control the person was believed to have over their behaviour was, the more it was perceived that the behaviour was due to an external reason. The relationship between controllability and internality is inconclusive in the literature. Sharrock et al. (1990) and Dagnan et al. (1998) found that there was a significant relationship between internality and controllability (internal factors were regarded as controllable), whereas, Stanley and Standen (2000) found no significant relationship between the two variables. The findings in the present study showed a different result (controllability was related to external locus of control). The relationship between controllability and external locus of control finds some support from Bromley and Emerson (1995). They found that challenging behaviours, which were considered unpredictable were more likely to be attributed to internal causes. It has been previously discussed that unpredictability may bear some relation to uncontrollability because if a client is seen as having little control over their behaviour, the behaviour may appear to happen without obvious triggers or warning (i.e. cannot be predicted). In the current study if challenging behaviour were perceived as being due to a factor in the environment then a client was seen as having an element of control over their behaviour (as it was triggered by something external), whereas, if the behaviour was perceived as being caused by an internal reason (e.g. part of their condition, or a medical reason such as epilepsy or pain) then they are seen as not having as much control. It is possible that perceived severity of learning disability may also be crucial in determining causal responsibility. This was a factor not investigated in the current research. It would also be important for further research to replicate this finding to assess further the relationship between stress and controllability and to assess whether the current findings are generalisable or are anomalous findings.

Stability was also negatively related to specificity in the current study. The less likely a behaviour was seen to change (stable) the more it was seen to happen across all situations (global). This intuitively appears to make sense, in that if a behaviour is seen as less likely to change and is a more stable part of a client's disposition then it is not surprising that the same behaviour is also seen to happen across many situations and not just specific ones.

Summary of Challenging Behaviour, Attributional Dimensions and Stress

In summary, the more outer-directed behaviours caused staff the most stress and globality, stability and uncontrollability were positively related to stress. When viewed in this way staff may feel that they have little means of successful intervention and behaviour is seen as unpredictable and hopeless which is related to feeling stressed. Control was found to be related to the behaviour being due to something in the environment and if a behaviour was seen as unstable it was also seen as being uncontrollable.

Clinical implications

As reported above, attributions did play a significant role in determining stress. In particular stress appeared to be related to factors related to intervention and perceived success of intervention. This has important clinical implications for external professionals and managers supporting staff. This finding again highlights the importance of exploring staff beliefs about behaviour, particularly issues like globality, stability and uncontrollability. By exploring these beliefs it may be possible to address and change the way challenging behaviour and interventions are viewed (e.g. help staff view behaviour as more amenable to change) and help alleviate some of the stress that exists for staff when managing challenging behaviours.

The finding that the externalised behaviours caused staff more stress than the internalised behaviours also has clinical implications in terms of intervention. Stancliffe, Hayden and Lakin (1999) found that externalised behaviour, such as aggression and destructive behaviour, were consistently associated with all types of intervention, whereas internalised behaviours were much less often associated with formal interventions. This implies that it is the consequences of behaviour that presents a problem to staff and influenced the likelihood of intervention. High staff stress in managing behaviour is a common reason for referral for external support. A practical implication is that support and interventions, are probably focused on clients that display outer-directed behaviours and clients that display more inner-directed challenging behaviours such as stereotypy or passive behaviour are offered less intervention as they do not cause staff as much stress. Staff may be disinclined to

intervene with behaviour that they do not find as challenging or stressful. Hastings (1995) also found that stereotypy was not usually responded to by staff. There is a clear role, therefore, for external professionals to be aware of the possible bias towards more external-directed behaviours in referrals from staff teams and there is a role for professionals to raise the profile of the more inner-directed behaviours as presenting an equal "challenge" and offer advice and training in regard to these behaviours.

Stress and Coping

Stress

Stress in staff working in learning disability services is multi-faceted. Cullen (2000) warns against simplistic assumptions, such as assuming that working with difficult people is, in itself likely to lead to staff stress and consequent burnout. He cites a study by Chung, Corbett and Cumella (1996) that surveyed staff working with people with challenging behaviour and found that while burnout was high, staff were positive about working with their clients and their burnout was more associated with management issues. Hatton et al. (1995) also report that sources of stress and/or job satisfaction can be related to service users (such as challenging behaviour) or related to organisational characteristics (such as support and work overload). Results of the present study found that stress was multi-faceted in nature as staff reported a range of sources of stress ranging from client related stresses to organisational issues.

The majority of participants in the present study reported issues related to the job (e.g. too much to do, long hours, isolation) caused them stress. Client behaviour (e.g. challenging behaviour, dealing with violence) and issues with other staff (e.g. lack of communication, lack of support from colleagues) were also frequently reported sources of stress. The emphasis on work-related stressors reported by participants in the current research was similar to stressors reported by group home care staff in a recent UK study (Rose, 1993), who rated a lack of staff and other resources and difficulties with staff as the most important stressors followed by the behaviour and demands of service users. The findings are also consistent with results from other

studies looking at stress in learning disability services (e.g. Hastings, 1995; Bromley and Emerson, 1995) where participants reported lack of resources or support, the residents and the physical environment as some of the sources of stress.

Stress was also found to be related to confidence and satisfaction. As hypothesised, staff that felt under less stress rated their confidence higher in managing clients' behaviour, rated their job satisfaction higher, were more satisfied in their job overall, were less likely to want to leave the job for anything else and were less anxious, less depressed and less physically ill at work than colleagues that were more stressed. The literature, however, has found that stress and satisfaction appear to be independent of each other and can co-exist (Bersani and Heifetz, 1985). Sharrad (1992) reported that some staff will find a stressful task challenging and fulfilling, but many find it exhausting which leads them to feel stressed. Participants in the present study were less satisfied if they were stressed. Allen et al. (1990) supports the finding that stress was related to the propensity to leave the job.

The findings in the current research support other previous work on stress. Malaise (measured by the Malaise Inventory, Allen et al., 1990) which covers physical and emotional health was found to be significantly positively correlated with perceived work stress in the Hatton et al. (1995) study. They concluded that this result indicated that these two stress measures are related. This is consistent with the finding that the mental health score and stress were related in the current study. High levels of work stress were also found to be associated with high ratings of the stressful nature of work and violent service user behaviour in the Hatton et al. (1995) study and by Bersani and Heifetz (1985). Again this is consistent with present findings which found that high levels of stress in managing behaviour was related to high levels of overall work stress.

Absenteeism was not found to relate to any of the stress measures in the current study. Participants in the current study frequently commented on the questionnaire that their reason for absences were due to other factors (e.g. personal issues, hospital operations) rather than stress. The relationships between these variables are

inconclusive. Some research finds support for absenteeism in relation to stress and burnout (e.g. Lawson and O'Brien, 1994) and other research has found no relationship (e.g. Murray et al., 1999). There are a few possible reasons for the current finding. Discipline procedures may be strict in the services in which the current sample were employed such that absence due to emotional factors were viewed negatively. On the other hand staff may be well supported at work and, therefore, do not feel that they have to take time off when they are under stress. The measure of absence was also self-reported and was not validated from any other source, therefore, it may be that the figures obtained were inaccurate. Alternatively, it may be that stress and satisfaction are independent of each other, as suggested earlier, and that despite feeling stressed at work staff remain satisfied and are willing to attend.

Stress and support have previously been found to be related (e.g. Harris and Thomson, 1993, Rose et al., 1998). Measures of support were not found to be significantly related to any of the measures of stress in the current study. However, participants in the present study frequently reported lack of support from colleagues or management to be a source of stress and receiving support from peers or family to be a source of coping with stress on the open-ended questions, but the ratings of stress and support did not correlate. It may be that either support was related to stress, as measured by the open-ended questions, but that it did not have a major influence on overall stress and other factors were more salient for staff, or that the support rating scales did not accurately measure aspects of support, therefore, not indicating a significant relationship. Alternatively, staff may have been responding to the rating scales in a socially desirable way and responding to how they felt the author or managers would want them to answer. Given that absence was not related to stress in the current study this lends some support to the argument that staff in the current study were supported well.

Coping

Individual efforts to cope with stress are important. A large proportion of participants in the present study reported obtaining some form of support from others (e.g. talking, supervision and team meetings) which helped cope with work-related stresses. Hastings

(1995) highlighted this as an adaptive function of having a cohesive staff group. Other ways of coping reported in the current study ranged from individual recreation activities such as walking and exercise (or as one participant put it "radox, wine and fags"), to personal coping strategies such as humour or detachment. Particular benefits of the job (e.g. flexibility, opportunity to work part-time and working in a nice atmosphere) were seen as positive by some participants and offered a way of coping with stresses.

Obtaining support can be viewed as a problem-focused way of coping (cf. Hatton et al., 1995) where the person tries to alter the stressful situation so as to remove the source of stress. Staff meetings and supervision, which were reported means of obtaining the support of others could be seen in this way. Recreation and personal coping strategies are more emotion-focused ways of coping where the person attempts to alter the stressful emotions concerning the stressful situation rather than attempting to alter the situation itself. There has been some suggestion that emotion-focused coping is not as adaptive (Hatton et al., 1995). In terms of working with clients that display challenging behaviour emotion-focused coping is an important strategy as it has been shown that challenging behaviour can elicit various negative emotions, so a means of coping with these emotions is vital. However, problem-focused coping is also an important strategy in terms of offering a means of altering the source of stress. Most literature on staff stress and intervention reports focusing on this area by providing staff training on challenging behaviour to assist staff to understand challenging behaviour and to alter beliefs.

A finding that was not reported in other studies reviewed, was that almost a third of participants in this study reported gaining extra knowledge by attending training courses helped them cope with stress. Staff may have perceived that they do not have sufficient knowledge or skills to cope with their work and felt training helped alleviate this. Previous research has found that one source of stress for staff relates to lack of knowledge about the causes of challenging behaviour and the strategies to reduce it (Bromley and Emerson, 1995). Ward (1989) and deKock, Felce, Saxby and Thomas (1987) also identified insufficient training and lack of support as being among the most

important factors contributing to staff stress, burnout and turnover. It was promising that staff in the present study recognised training as relevant to practice and as a potential way of managing stress differently, however, the possibility that staff were responding in a way that would be desirable to professionals may have affected this result. Allen et al. (1990) and Smith and Cumella (1996) both found that untrained staff expressed less need for training than qualified staff, which they presumed was because untrained staff did not recognise its relevance to practice. In the Smith and Cumella (1996) study, staff who considered that further training would be helpful listed management-related topics, therapeutic techniques, challenging behaviour and understanding learning difficulties as priorities.

Summary of Stress and Coping

In summary, participants in the current research reported a range of sources of stress suggesting, consistent with other literature, that stress in learning disability services is multifaceted in nature. Reasons given for stress ranged from work and organisational issues to factors relating to the clients and challenging behaviour. Coping was also multifaceted and individual and participants reported a range of problem-focused and emotion-focused means of coping. Support from others and training were some of the ways that participants in the current study found to cope with their work.

Clinical Implications

There are various clinical implications from these findings that stress and coping are multi-faceted. Work-related issues appeared to cause staff the most stress. This emphasises the responsibility of organisations to address resource and workload issues rather than an assumption that staff stress and poor staff performance are a result of inadequate skills or training. Client challenging behaviour was, however, also a significant source of stress for staff and participants frequently cited stresses such as managing aggressive behaviour, the unpredictability of behaviour and being injured. This highlights the importance of staff management to include support for staff and a role for training in addition to addressing organisational factors. As noted, staff use both problem-focused and emotion-focused coping strategies. While problems-focused

coping is a more adaptive response there is also a role for helping staff cope with the aversive nature of challenging behaviour and to support emotional responses.

Support from others is clearly an important factor and the staff in the current study appear to be relatively well supported and are not absent for long periods due to stress. This highlights the importance for staff teams and management to consider the importance of support and supervision to maintain a satisfied staff team. It has been shown in the results that if stress is alleviated or minimised, staff are more likely to want to remain in the job and are more healthy, both factors which will affect the quality of care that clients receive. Firth and Myers (1985) have suggested that support should include good communication, adequate staff numbers, involvement in decisions about clients, feedback and respect.

Overall, the current study has shown that to improve staff stress the approach has to be multi-faceted and include addressing staff beliefs, knowledge, providing practical support for coping with stress both by addressing the source of stress and by encouraging ways of staff coping emotionally as well as addressing organisational issues that are causing or maintaining stress. As Cullen (2000) noted, approaches that work are those which address all the elements of a system.

Secondary Hypotheses- Experience and Previous Training
The current study also examined the influence that experience and previous training had on attributions and stress.

Experience
Experience has been shown in previous studies to influence attitudes and interventions (e.g. Dagnan et al., 1990; Hastings et al., 1995). The only difference that was found by comparing groups of staff in terms of the number of years experience they had was in rating of knowledge. Knowledge was found to be greater between participants that had over 10 years experience compared with those that had between 5 and 10 years experience and those with less than 5 years experience. No differences in casual attributions, attributional ratings or stress measures were found. This implies that

experience has no influence on attributions or stress. As reported earlier, Hastings et al. (1997) found that attributions were not related to factors such as experience. It appears from these findings, therefore, that stress affected staff equally and neither being new to the work or having spent a long time in services were influences on stress.

However, it is likely that quantitative and qualitative aspects of experience are related in different ways to staff attributions. As Hastings et al. (1997) noted current experience of individuals engaging in challenging behaviour may be more salient than cumulative experience in services. This was supported in the findings. There were differences found comparing staff who had experience of the different topographies of behaviour and those who had no experience. Staff who had experience of aggression, self-injurious behaviour and destructiveness all rated their confidence as significantly higher in managing aggression, self-injury and destructive behaviour respectively than staff that had no prior experience of that behaviour. This implies that either exposure to such behaviour and experience in working with these clients builds staff confidence, or conversely that having no experience makes one feel more fearful of the behaviour or have less perceived confidence in managing the behaviour. Similarly, staff that did not work with clients who self-injure reported more imagined stress in managing that behaviour than staff that had experience. There was a difference in only one of the ratings on attributional dimensions between groups. Participants with no prior experience of aggression rated a client's control over aggressive behaviour significantly greater than those with experience. This is the same as findings in the Dagnan et al. (1998) study where staff in the non-challenging behaviour group rated controllability higher than staff in the challenging behaviour group. By implication, therefore, experience of challenging behaviour (aggression in this case) possibly means that staff are able to attribute reasons for a client behaving in that manner and they are not simply seen as being violent, which might be the case if behaviour was seen as controllable or deliberate.

No other differences were found between groups in ratings of attributional dimensions. This implies that ratings on attributional dimensions do not change with time or contact with individuals. However, a crude measure of experience was used (number of years

and contact with clients that have challenging behaviour) and as Hastings et al. (1997) noted it may be that the nature of the challenging behaviour that staff have experienced is a salient factor which may bias their interpretation of future incidents. The difference between the nature of experience was not addressed in the current research and there may be differences between staff that experience challenging behaviour infrequently to those that experience it on a frequent basis. Similarly, there may be differences between staff that experience assault to those that only experience threats. This requires further research before the effects of experience on attributions can be fully realised.

A gender difference was found to be related to the number of years experience in learning disability services. A greater proportion of females than males had less than 5 years experience in comparison to the other two groups. Of the small proportion of men that work as carers (18 in the current study) more of the men employed have remained in the learning disability service for 5 years and above. Allen et al. (1990) have previously reported that caring work in learning disability services tends to attract more female staff. This finding may be simply a reflection that in the sample studied more females were employed in the last 5 years or that women leave the profession after a shorter time than men (possibly for family reasons). A further significant finding related to experience was participation in previous training courses. More staff that had not attended any previous training in challenging behaviour were in the group of staff that had less than 5 years experience. It seems likely that not being in a job for as long means that one will not have the same opportunities to attend training as staff employed for over 10 years.

Clinical implications

Clinical implications emanating from the above findings were that experience and contact with individuals did not appear in the current research to have influenced attributions or stress. This may be due to the way it was measured, however, it implies that if staff have inappropriate beliefs or understanding or are feeling stressed that it should not be assumed that either more experience is required in the job or that an individual has been working in the area for too long a time and something more

proactive needs to be done (e.g. staff training or support). As knowledge was greater with the more experienced group this suggests either that length of time in the job or training does impact on knowledge as this group had also attended more training courses.

Previous Training

Previous training was also examined in the current study as previous studies that have found a difference between inexperienced and experienced staff (e.g. Hastings et al., 1995) have not separated the effect of training from experience. A similar result to that reported above, was found for participants in the current study that had attended previous training in challenging behaviour. Knowledge was rated as higher in the group of staff that had attended training. As above, there were no differences in measures of attributional dimensions between the two groups. This implies that training does not change staff beliefs. Training, however, can cover a wide range of courses from control and restraint, introductory courses to in-depth training on models of behaviour and interventions. The type of training received has been shown by some to influence and change beliefs (e.g. Berryman et al., 1998). The current research attempted to measure what type of training participants had received, however, useful information was not gathered (e.g. participants tended to offer a vague description like "one day course", "part of HNC" which did not indicate the content of courses). Further research into the effects of training, perhaps by using a multiple choice option for staff to indicate the type of training received would be required to further address the issue of training on attributions before definitive conclusions can be drawn.

Staff that had received previous training rated their mental health poorer (more anxious, depressed and physically ill) than those with no previous training. Mental health was previously related to stress, therefore, this suggests that staff in the trained group might feel under more stress. There was the possibility that trained staff may feel more responsibility or have more demands placed upon them following training or that more knowledge led to more insight into difficulties in service, causing more stress. This supports the suggestion that approaches need to be multi-faceted and address not only staff knowledge and skills but offer support.

There was a gender bias in the groups with more men having received training. This appeared surprising as there are more women working in services. However, there were more men in the higher experience groups and staff in the high experience groups had received more training, therefore, this finding may be an artefact of these results rather than gender discrimination. Job titles were not measured and it was possible that more men were managers of services and, therefore, would have possibly attended more training.

Clinical Implications

While a relationship between variables does not imply causality these findings suggest that some aspect of training and/or experience may have increased staff's perception of having greater knowledge. This supports the argument that training has an impact on knowledge and knowledge is maintained over time (e.g. McKenzie et al., 2000). Attributions and stress do not appear to be affected by experience or training, however, more comprehensive research is required in this area before definite conclusions can be drawn.

Conclusions of the current research, further clinical implications and suggestions for future research are explored in the following sections. Some of the methodological limitations of study one and problems are discussed first.

Methodological Problems

There are a number of limitations that should be considered when interpreting the results, even though the study has been presented as exploratory in nature.

Methodological issues with questionnaire and design of study

The representativeness of the sample studied may not be clear as no information was available about non-responders in the population studied and a fully representative study may have produced different results. However, the sample was similar in size and participants to others studied (e.g. Allen et al., 1990; Hastings et al., 1995, Hastings, 1997; McKenzie et al., 2000). The author observed that all potential participants were

interested and appeared motivated to take part in the study at recruitment and it was felt to be the time factor that influenced non-completion of measures rather than any particular objection. The results are, therefore, considered reasonably representative of the population studied.

There are well-documented problems in using self-report measures to assess knowledge and attitudes. There are problems in psychological research in participants responding in a socially desirable manner (Oppenheim, 1992). Powell (1997) discusses the problems of the halo effect (the score on previous scales influence scores on subsequent scales), the experimenter effect (participant tries to please the test administrator), the leniency error (resist assigning negative qualities to self or other), central tendency (over-use of the middle of the scale) and extreme responding (tendency to use just the extreme points of a scale). A further problem with group administered questionnaires are contamination (through copying, talking or asking questions) (Oppenheim, 1992). However, as Powell (1997) puts it: "no test is ideal and the problems posed by this error component have to be squarely faced" (p36). To counter some of these potential problems, the questionnaire was balanced with open-ended questions and rating scales and the directions of responses was varied. Results of the piloting of the questionnaire did not highlight any of the above problems as having a major influence and most measures showed a normal distribution of scores. Participants also appeared to be completing questionnaires individually when administered in a group, which was observed by the author.

A factor not considered in the research was potential problems that staff may have had with reading and/or writing in completion of the measure. As participation was voluntary non-responders may have fallen in to this group which could have lead to misleading results being obtained due to non-representativeness of the sample. However, the author was present in most situations in which the questionnaire was completed and no difficulties were raised regarding this matter, therefore, it was not assessed to be a major problem.

Reliability poses a further area for misinterpretation of results. The test-retest of the questionnaire was considered acceptable for the purposes of the study, but some caution is needed as some measures did not correlate well at retest introducing some inaccuracy into the results. Reliability of the coding procedure is also a potential area of difficulty. Although this was reasonable for the kind of data collected (89-100%) in the current study, there was room for misclassification. However, as Hastings (1996) reported in his study a certain amount of face validity arises from the fact that the attributions, sources of stress and coping mechanisms reported by staff were similar to previous research studies in this area. A similar methodological argument is true for questions of validity of the measure used. The current measure was considered to have acceptable face, content and criterion validity, which supported the use of the measure for the study, but no analyses of the psychometric properties of the scale was undertaken.

Further methodological problems concern the variables themselves. As Heyman et al. (1998) discussed, there is an inherent unreliability of judgements about challenging behaviour as categorisation of what is challenging depends upon the attributes of those challenged. However, because the focus of the intervention was on what participants thought about challenging behaviour this was not thought to be a difficulty, as staff attitudes and perceptions provided the focus of the study.

There are many problems with attributional designs: in most studies subjects are presented with a short description of some response by another person. Additional information is usually incomplete. Jaspars, Hewstone and Fincham (1983) report that if we were to take seriously the suggestion that subjects actually carry out an intuitive analysis of variance in order to make a causal attribution, this limited amount of information would cause serious problems. Participants in the current study were responding to questions with very limited information available to them. It was likely that staff were responding to attribution questions based on their own experience and own clients, therefore, would be giving varied responses. It may have been better to use a case vignette or a known person (as done in studies like Hastings et al., 1995; Hastings and Remington, 1994 and Dagnan et al., 1998), however, the focus of the study

was to examine what staff's "general" attributions were rather than focusing on individual cases. Future research would be recommended to compare attributions made about known clients or using vignettes.

Stress was also a very difficult concept to measure. Some features of stress (e.g. anxiety and depression) are influenced by variables outside the workplace and this was a feature that was not addressed in this research. Such factors may be important, and may contribute to or mediate the effects of stressful work environment.

The choice of statistical analyses employed for the study was open to debate as the questionnaire primarily relied on scores on a visual analogue scale. There is a debate as to whether visual analogue scales, like many other forms or psychological measurement, can be considered interval rather than ordinal data (Powell, 1996). This influences the choice of statistical analysis (e.g. parametric/nonparametric). It was previously discussed that while it can never be unequivocally demonstrated that visual analogue scores and their data can be treated as interval data, their use is based on the same assumptions as other psychological measurements (McCormack et al., 1988). In support of the choice of analyses used in the current study the distribution of the data was analysed and found to be normally distributed for the majority of variables. In consultation with statisticians and following procedures used by other researchers parametric statistics were used.

Study two is reported next before clinical implications and recommendations for future research are discussed.

Study Two

Study two investigated the effect of a challenging behaviour course on knowledge, attributions and stress. When comparing the pre-training measures with post-training only knowledge scores had changed significantly with staff rating knowledge of learning disabilities, challenging behaviour and management of challenging behaviour all higher following training. The change in knowledge was still significant at follow up. This was supportive of other research that has found training to be an effective means of

increasing levels of knowledge in staff (e.g. Allen et al., 1990; Kobe and Mulick, 1995). This result was also consistent with findings by the authors of the challenging behaviour training in their evaluation (McKenzie et al., 2000), who found that knowledge significantly increased after training. This supports that training is effective in changing knowledge. However, it cannot be assumed that significant changes in knowledge will lead to positive changes in staff approaches and further observational research is required in this area.

The only other variable that changed comparing measures pre and post training was one of the open-ended attributions (behaviour due to the client trying to communicate something). Six participants mentioned this as a reason for behaviour prior to training but afterwards did not cite this as a cause. It is not clear whether the training had caused this shift and they had decided other attributions were more salient or if they had just mentioned another three potential attributions from a choice of many.

No other variables changed significantly following training, however, a problem arose in the post-training completion of questionnaires. Over half of participants (58%, n = 21) wrote "same as before" on their questionnaires in relation to the open-ended questions and there were missing data for between seven and twenty one participants on the rating scales after training. The results are, therefore, not necessarily representative of the whole group. With such a small group to make comparisons between pre- and post-training measures (between fifteen and thirty-six participants) the resulting power of the results are significantly reduced. However, although the results did not show significant differences one participant highlighted a change in attribution for them following training:

> For many of the above (casual attributions about behaviour), e.g. screaming/ headbanging, these may be behaviours which have been learned through reinforcement, e.g. staff makes request- client screams- staff withdraws- there you see I did learn something! (subject number 23).

Because of the problem of non-completion of post-training measures a comparison was made between pre-training scores and follow up scores taken 6-8 weeks after the

training day. The results showed a larger difference between scores, indicating that training had affected attributions and stress, although the groups were still small (24 participants completed follow up measures, but there was still missing data from 5 to 13 participants on some measures) and the differences were not significant. Only the knowledge score remained significantly increased at follow up. This research would need to be replicated in a larger sample (at least 35 participants) before conclusions could be made that training did not affect attributions as the power of the results of the current study would have bee significantly affected by the small sample size. A type II error (rejecting the research hypothesis when in fact it is correct) is possible. In replicating the current research consideration would need to be made to the design and collection of measures to avoid the same problem of non-completion. Either measures could be collected after training the next day rather than immediately after when participants were tired and could be collected from staff rather than relying on postal return. Alternatively a shorter questionnaire could be designed so that completion is quicker and easier for staff.

The introductory training provided a brief, broad overview of challenging behaviour covering areas such as causes of behaviour, functional analysis, reinforcement and intervention approaches. By covering these areas it was aimed to give staff an initial insight into factors that cause behaviour and why it might occur. By discussing reinforcement of behaviour and intervention it was hoped to give staff an awareness that challenging behaviour is not necessarily "fixed" behaviour (i.e. it can change/ unstable) and that by understanding the function of the behaviour interventions can be designed for staff to implement to help remediate the behaviour. Therefore, the finding that the mean scores in these four dimensions changed in the expected direction (behaviour seen more as a result of the environment, not happening in all situations, changeable and has an element of control) indicates that training fulfilled some of its aims and that replication with a larger sample would be important to investigate whether these findings are significant.

There were some other significant changes in measures comparing follow up measures to pre-training. The attribution "communication deficit/problem" was reported more

pre-training and not mentioned later at follow up by some participants. Recreation as a coping strategy was mentioned by more participants at follow up. It is not clear whether the training caused these changes. Training as a coping strategy was also mentioned as a way of coping by six participants before the training course and not mentioned later at follow up. It can be speculated that those that reported training helped them cope with stress at work felt that the training day fulfilled it's purpose and they cited other ways of coping at follow up. Alternatively staff may have been "sold" the training by managers or services as a way of helping them manage stress and this was salient in their mind as a coping strategy immediately before training. Responding in a favourable way to please the workshop leaders is also a possibility.

Ziarnick and Bernstein (1982) highlight the importance of assessing the subjective impact of training in addition to its cognitive impact. The findings from the training evaluation form suggest that participants found the training to be enjoyable, understandable and of practical relevance. This was consistent with a separate evaluation of the training course (McKenzie et al., 2000) who found similar participant responses. Harper (1994) and Ward (1987) suggest that training must be tailored to the needs of the recipients if it is to be effective. The present findings suggested that the training was tailored to the needs of participants and had a cognitive impact (change in knowledge ratings and small changes in attribution and confidence ratings).

A further area of research into training would be to include a control measure. It cannot be assumed that the training caused the differences in attributions as there was no measure of what happened in the intervening period between training and follow up (6-8 weeks). However, due to the fact that attributions have been shown not to be influenced by length of time in services it can be assumed that attributions tend to be relatively "fixed" and it is unlikely that a 6-8 week gap would have significantly affected the results. The design of the study did include a small control group (fifteen participants that completed the test-retest measures) that completed measures at two time scales before training to assess whether the measures changed with time. The results of this did show that attributions were stable over time providing support for any changes occurring after training were due to the training and not other factors.

However, a separate control group that completed the same measures but without training would also be beneficial. These and further methodological limitations are discussed in more detail later.

Summary of effects of training in challenging behaviour on knowledge, attributions and stress

In summary, following attendance on a one day challenging behaviour course participants rated their knowledge of learning disabilities, knowledge of challenging behaviour and knowledge of management of challenging behaviour higher. This change was maintained up to 2 months later. Problems with completion of measures after training meant that other comparisons were difficult. When measured 2 months later, participants who had attended training rated their confidence slightly higher and there were promising changes in their attributional ratings consistent with the content of the training, however, this needs to be replicated with a larger sample to evaluate if this difference was significant.

Clinical Implications

The implications of these findings are that staff training courses are a simple and cost effective way of increasing staff knowledge. Staff report finding training useful and relevant and report it as a way of coping with stress. The difference in means at follow up suggests that attributions do change with training. Further research, described above, is needed to evaluate changes in attributions and stress clearer as the current sample was too small to make any firm conclusions from.

The training course that was investigated was a brief introductory course and as such did not specifically address topics such as stress or attitudes. Large changes in measures would, therefore, not be expected and further research would be interesting that was aimed at specifically addressing these areas.

Methodological issues related to training

Additional methodological flaws to those already reported concerned the design of the study two. As was seen in the results, non-completion of measures was a significant

problem. Oppenheim (1992) reported that in longitudinal surveys case losses become a serious problem, since they will almost certainly introduce bias in the results. A number of issues related to the design may have influenced this. For the follow up, the managers of the group homes of which the staff had attended the training were given responsibility to ask their staff to complete the follow up questionnaires. This was done at the request of the managers to cause less intrusion, however, it may have been at the cost of less anonymity and lower compliance. As already noted, the length of the questionnaire was also a significant factor and it was a big demand on staff to complete the same measure up to three times. This was especially noted after the training, when staff were tired and had been concentrating on the course for a day.

The evaluation found some changes in responses to open and closed items in the questionnaire after training and at follow up. However, caution needs to be expressed regarding the interpretation of this finding. Rose and Holmes (1991) noted that there is a risk of participants saying and writing what they think workshop leaders want to hear. However, the results were maintained up to 2 months later and questionnaires were completed separate to workshop leaders and it was emphasised that results would be kept anonymous and the findings were not felt to be overly biased.

There was also no measure of whether reported changes in knowledge or confidence generalised to actual changes in staff skills. This would be an important area for further research.

Finally, as mentioned earlier there was no control group to compare changes resulting from training against. The results found after training have, therefore, to be treated with caution, as there was no indication of whether these any factors would have changed for some other reason (e.g. over time).

With these points in mind, there are a number of potentially useful implications for research and practice emanating from the results of this thesis.

Conclusions and Clinical Implications

In conclusion, data reported in this thesis do not support the assumption that care staff have inappropriate beliefs or knowledge about the causes of challenging behaviour. Consistent with other studies (e.g. Hastings, 1997; Bromley and Emerson, 1995; Hastings and Remington, 1994), staff were able to offer a range of appropriate reasons for challenging behaviour which were consistent with contemporary models of behaviour.

There is an implicit assumption that staff ideas about causation of challenging behaviour will influence their responses to it (Hastings, 1997). Although there is no direct information about how and when attributions may be related to staff intervention behaviour, it has been suggested that attributions interact with other factors to determine staff behaviour (Hastings and Remington, 1994; Hastings, Remington and Hatton, 1995). Results of the present research indicated that staff working in learning disability services made attributions related to controllability, internality, stability and specificity, that their attributions were dependent on the behaviour and that their attributions did in some way influence how they felt. These are important findings for practice. Attributions are important factors in staff behaviour and are important to consider when designing and implementing any intervention.

Staff often take the brunt of criticism in the literature on challenging behaviour (e.g. Hastings and Remington, 1994; Hastings and Remington, 1993) regarding behavioural programmes failing, employing counter-habilitative approaches in their work and are often "blamed" or viewed as having a character flaw when they are not coping or are stressed at work. The present research has shown that their attitudes/attributions do have some influence on stress but the results also indicate the wide range of other sources of stress (e.g. work/management/resource-related). The literature implicates aspects of services and institutions and resources as sources of staff stress (Cullen, 2000). Service rules have also been identified as counter-habilitative (Hastings et al., 1997) and staff support is implicated in stress at work (George and Baumeister, 1981). Unfortunately, there is no one easy answer to assist staff in coping with the stresses

at work, to manage challenging behaviour and to manage services that are not always adequate. As noted, approaches are needed that address all the elements of a system (Cullen, 2000) and are not only focused on staff.

Future Research

Following on from the work in the present research a number of areas of future research are highlighted, some of which have already been discussed.

There are a number of important issues that relate to training. Training is viewed by staff in this study to be useful, helps them cope better with stress and increases their knowledge. Training may help improve staff skills and knowledge, but trainers should also consider why staff behave in particular ways. It has been shown in the current study that staff attributions are related to stress and it may be that training could address this topic. It is acknowledged that attributions, however, are often linked to specific clients. Training addressing attributions and attributional change would appear to be best focused on teaching specific staff groups in relation to specific clients and perhaps would be best following an introductory course, like that discussed in the present thesis. Longitudinal research addressing various aspects of staff beliefs and stress would perhaps shed more light on this complex area.

It has also been emphasised that working with clients with challenging behaviour is aversive (Bromley and Emerson, 1995) and stressful. It has been suggested by others that training requires a shift in emphasis from teaching theory to including practical skills that enable staff to cope with anger and anxiety and to reduce the aversiveness of behaviour (Hastings, 1995). A participant in the Heyman et al. (1998) study reported that: " you get a lot of training on why someone does it. There's nobody giving you any training on what to do when it actually happens. (p178)". This highlights the important fact that training about the causes of challenging behaviour, while important, should only be one aspect of professional input. This point is emphasised by another participant from the Heyman et al. (1998) study who reported that:

This training about why it's happening, when somebody is coming for you with a knife, you're not thinking, 'He's going to have an epileptic fit in two hours time'. You're thinking, 'What the hell am I going to do?'. And there's no training whatsoever on that." (p178).

Professionals working with staff groups and involved in the design of behavioural programmes need to be aware of the nature of staff's beliefs and the reality of working with challenging behaviour on a daily basis. Programme designers should incorporate methods of dealing with staff's emotional reactions and encourage not only problem-focused coping but also emotion-focused coping. Those managing staff should also remain aware that staff behaviour serves a function, which needs to be understood, just like the clients.

More observational research is also needed. It has been an assumption that how staff actually behave with respect to clients who are exhibiting dysfunctional behaviour is closely related to the attributions they make (Cullen, 2000). Future research needed in order to address the (probably highly complex) relationships between emotional reactions, beliefs and actual performance.

Finally, further information is also needed on staff responses according to differing degrees of disability as it has been shown that attributions vary according to the perceived dependency of the clients (Stanley and Standen, 2000). This area was not addressed in the current research and would be an important follow on from the current findings. In addition, further research on the link between attributions and helping behaviour would take the current research a step further.

REFERENCES

Abramson, L.Y.; Seligman, M.E.P. and Teasdale, J. (1978). Learned helplessness in humans: Critique and reformulation. Journal of Abnormal Psychology, Vol. 87, p49-74.

Aitken, R.C.B. (1969). A growing edge of measurement of feelings. Proceedings of the Royal Society of Medicine, Vol. 62, p989-996.

Aitken, L.R. (1985). Psychological testing and assessment (5th edition). Boston: Allyn and Bacon.

Ajzen, I. and Fishbein, M. (1977). Attitude-behaviour relations: a theoretical analysis and review of empirical research. Psychological Bulletin, Vol. 84, p888-918.

Allen, D.; McDonald, L.; Dunn, C. and Doyle, T. (1997). Changing staff approaches to the prevention and management of aggressive behaviour in a residential treatment unit for persons with mental retardation and challenging behaviour. Research in Developmental Disabilities, Vol. 18 (2), p101-112.

Allen, V.L. and Greenberger, D.B. (1980). Destruction and perceived control. In A. Baum and J.E. Singer (Eds). Applications of Personal Control, Vol. 2. Hillsdale: Lawrence Erlbaum.

Allen, P., Pahl, J. and Quine, L. (1990). Care staff in transition: the impact of changing services for people with mental handicaps. London: HMSO.

American Association on Mental Retardation (1992). Mental retardation: definitions, classification and systems of support (9th ed.) Washington, DC: American Association on Mental Retardation.

American Psychiatric Association (1994). Diagnostic and statistical manual of mental disorders (4th ed.). Washington DC: American Psychiatric Association

Amirkhan, J.H. (1990). Applying attribution theory to the study of stress and coping. In S. Graham and S. Folkes (eds.), <u>Attribution theory, mental health and interpersonal conflict</u> (p79-101). Mahwah, NJ: Erlbaum

Attwood, T. and Joachim, R. (1994). The prevention and management of seriously disruptive behaviour in Australia. In N. Bouras (Ed) <u>Mental health in mental retardation: recent advances and practices</u>. Cambridge University Press: Cambridge.

Averill, J. (1973). Personal control over aversive stimuli and its relationship to stress. <u>Psychological Bulletin, Vol. 80, p286-303.</u>

Baldwin, P. (1999). Nursing. In J. Firth-Cozens and R. Payne, (Eds) <u>Stress in Health Professionals. Psychological and Organisational Causes and Interventions.</u> Wiley, Chichester, UK.

Baldwin, P.J.; Dodd, M. and Wrate, R.M. (1998). <u>Young nurses: work, health and welfare. Report for the Chief Scientists Office, Scottish Office, UK.</u>

Berryman, J.; Evans, I. M. and Kalbag, A. (1994). The effects of training in nonaversive behaviour management on the attitudes and understanding of direct care staff. <u>Journal of Behaviour Therapy and Experimental Psychiatry, Vol. 25, p241-250.</u>

Bersani, H.A. Jr. and Heifetz, L.J. (1985). Perceived stress and satisfaction of direct care staff members in community residences for mentally retarded adults. <u>American Journal of Mental Deficiency, Vol. 90 (3), p289-295.</u>

Betancourt, H. and Blair, I. (1992). A cognition (attribution)-emotion model of violence in conflict situations. <u>Personality and Social Psychology Bulletin, Vol. 16, p573-591.</u>

Binney, V. (1992). Staff Training to Run Activity Groups with People with Profound Learning Disabilities: Evaluation of Attitude, Knowledge and Skill Changes. Behavioural Psychotherapy, Vol. 20, p267-278.

Blunden, R. and Allen, D. (eds.) (1987). Facing the challenge. An ordinary life for people with learning difficulties and challenging behaviour. London: King's Fund.

Borden, K.A. and Brown, R.T. (1989). Attributional Outcomes: The subtle message of treatments for Attention Deficit Disorder. Cognitive Therapy and Research, Vol. 13, p147-160.

Brewin, C. (1984). Perceived controllability of life events and willingness to prescribe psychotropic medication. British Journal of Social Psychology, Vol. 23, p285-287.

Brewin, C.; MacCarthy, B.; Duda, C. and Vaughn, C. (1991). Attribution and expressed emotion in the relatives of patients with schizophrenia. Journal of Abnormal Psychology, Vol. 100, p546-554.

Bromley, J. and Emerson, E. (1995). Beliefs and emotional reactions of care staff working with people with challenging behaviour. Journal of Intellectual Disability Research, Vol. 39 (4), p341-352.

British Psychological Society (2000). Learning Disability: Definitions and Contexts. Leicester: British Psychological Society

Bugental, D.B; Blue, J. and Cruzcosa, M. (1989). Perceived control over caregiving outcomes: Implications for child abuse. Developmental Psychology, Vol. 25, p532-539.

Caldwell, M.F. (1992). Incidence of PTSD Among Staff Victims of Patient Violence. Hospital and Community Psychiatry. Vol. 43 (8), p838-839.

Carr, E.G.; Taylor, J.C. and Robinson, S. (1991). The effects of severe behaviour problems in children on the teaching behaviour of adults. <u>Journal of Applied Behaviour Analysis, Vol. 24, p523-535.</u>

Caton, D.J.; Grossnickle, W.F.; Cope, J.G.; Long, T.E. and Mitchell, C.C. (1988). Burnout and Stress among Employees at a State Institution for Mentally Retarded Persons. <u>American Journal on Mental Retardation, 93 (3), p300-304.</u>

Cataldo, M.F. and Harris, C.J. (1982). The biological basis for self-injury in the mentally retarded, <u>Anal & Intervention in Developmental Disabilities, Vol. 2, p21-39.</u>

Chapman, C.R. (1976). Measurement of pain: problems and issues. In <u>Advances in Pain Research and Therapy, Vol. 1 (eds. J.J. Bonica and D.G. Albe-Fessard), p345-354: Raven Press: New York.</u>

Chavira, V.; Lopez, S.R.; Blacher, J. and Shapiro, J. (2000). Latino Mothers' Attributions, Emotions and Reactions to the Problem Behaviours of their Children with Developmental Disabilities. <u>Journal of Child Psychology and Psychiatry, Vol. 41 (2), p245-252.</u>

Chung, M.C.; Corbett, J. and Cumella, S. (1996). Relating staff burnout to clients with challenging behaviour in people with a learning disability: pilot study 2. <u>European Journal of Psychiatry, Vol. 10, p155-165.</u>

Clements, J. (1997). I can't explain... "challenging behaviour": towards a shared conceptual framework. <u>Clinical Psychology Forum 100, p19-28.</u>

Colligan, M.J.; Smith, M.J. and Hurrell, J.J. (1977). Occupational incidence rates of mental health disorders. <u>Journal of Human Stress, Vol. 9, p34-39.</u>

Corrigan, P.W. (1993). Staff stressors at a developmental centre and state hospital. Mental Retardation, Vol. 31, p234-238.

Cottle, M.; Kuipers, L.; Murphy, G. and Oakes, P. (1995). Expressed emotion, attributions and coping in staff who have been victims of violent incidents. Mental Handicap Research. Vol. 8 (3), p168-235.

Cullen, C. (2000). A review of some important issues in research and services for people with learning disabilities and challenging behaviour. Scottish executive review of services for people with a learning disability. Edinburgh: Scottish Executive.

Dagnan, D.; Trower, P. and Smith, R. (1998). Care staff responses to people with learning disabilities and challenging behaviour: A cognitive-emotional analysis. British Journal of Clinical Psychology. Vol. 37, p59-68.

Dawson, J.; Johnston, M.; Kehlayan, N.; Kyano, S. and Martinez, R. (1988). Response to patient assault. Journal of Psychosocial Nursing, Vol. 26, p8-15.

deKock, U.; Felce, D.; Saxby, H. and Thomas, M. (1987). Staff turnover in a small home service. Mental Handicap, Vol. 15 (3), p97-101.

Department of Health (1998). Signposts for success in commissioning and providing health services for people with learning disabilities. NHS Executive.

Derby, K.M.; Wacker, D.P.; Sasso, G.; Steege, M.; Northup, J.; Cigrand, K. and Asmus, J. (1992). Brief functional assessment techniques to evaluate aberrant behaviour in an outpatient setting: A summary of 79 cases. Journal of Applied behaviour Analysis. Vol. 25, p713-721.

Dey, I. (1993). Qualitative Data Analysis: A User-Friendly Guide for Social Scientists. London: Routledge.

Dix, T.; Ruble, D.N. and Zambarano, R.J. (1989). Mothers' implicit theories of discipline: Child effects, parent effects, and the attribution process. Child Development, Vol. 60, p1373-1391.

Durand, V.M. and Crimmins, D.B. (1988). The Motivation Assessment Scale. Monaco & Associates, Topkepa, KS.

Duker, P.C.; Boonekamp, , J.; Brummelhuis, Y.; Hermans, M; van Leewe, J. and Seys, D. (1989). Analysis of ward staff initiatives towards mentally retarded residents: clues for intervention. Journal of Mental Deficiency Research, Vol. 33, p55-67.

Dyer, C. (1995). Beginning research in psychology- a practical guide to research methods and statistics. Blackwell publishers: Oxford

Emerson, E.; Toogood, A.; Mansell, J.; Barrett, S.; Bell, C.; Cummings, R. and McCool, C. (1987). Challenging behaviour and community services: 1. Introduction and overview. Mental Handicap. Vol. 15, p166-169.

Emerson, E.; Cummings, R; Barrett, S.; Hughes, H.; McCool, C. and Toogood, A. (1988). Challenging behaviour and community services. 2. Who are the people who challenge services? Mental Handicap, Vol. 16, p16-19.

Emerson, E.; Beasley, F.; Offord, G. and Mansell, J. (1992). An evaluation of hospital-based specialised staffed housing for people with seriously challenging behaviours. Journal of Intellectual Disability Research, Vol. 36, p291-307.

Emerson, E.; Hastings, R. and McGill, P. (1994). Values, attitudes and service ideology. In E. Emerson, P. McGill and J. Mansell (eds.) Severe Learning Disabilities and Challenging Behaviours: Designing High Quality Services., p209-231. London: Chapman and Hall.

Emerson, E. and Bromley, J. (1995). The form and function of challenging behaviours. Journal of Intellectual Disability Research, Vol. 39 (5), p388-398.

Emerson, E. (1995). Challenging Behaviour: Analysis and Intervention in People with Learning Disabilities. Cambridge University Press: Cambridge.

Emerson, E. (1998). Working with people with challenging behaviour. In Clinical Psychology and People with Intellectual Disabilities. (ed. Emerson, E.; Hatton, C.; Bromley, J. and Caine, A.). John Wiley and Sons Ltd: Chichester.

Firth, H. and Myers, M. (1985). Supporting staff in community services. Mental Handicap, Vol. 13 (3), p100-103.

Fleming, I. and Kroese, B. S. (1993). Introduction. In E. Emerson, P. McGill and J. Mansell (Eds) People with Learning Disability and Severe Challenging Behaviour. London: Chapman and Hall.

Fletcher, B.C. (1989). The Cultural Audit: An Individual and Organisational Investigation. PSI, Cambridge.

Folstein, M.F. and Luria, R. (1973). Reliability, validity and clinical application of the visual analogue mood scale. Psychological Medicine, Vol. 3, p479-486.

Folkman, S. and Lazarus, R. (1985). If it changes it must be a process: a study of emotion and coping during three stages of a college examination. Journal of Personality and Social Psychology, Vol. 48, p150-170.

Gedye, A. (1989). Extreme self- injury attributed to frontal lobe seizures. American Journal of Mental Retardation, Vol. 94, p20-26.

George, M.J. and Baumeister, A.A. (1981). Employee Withdrawal and Job Satisfaction in Community Residential Facilities for Mentally Retarded Persons. American Journal of Mental Deficiency. Vol. 85 (6). P639-647.

Goldeberg, D. and Hillier, V.F. (1979). A Scaled version of the General Health Questionnaire. <u>Psychological Medicine, Vol. 9, p139-145.</u>

Gunsett, R.P.; Mulick, J.A.; Fernals, W.B. and Martin, J.L. (1989). Indications for medical screening prior to behavioural programming for severely and profoundly mentally retarded clients. <u>Journal of Autism & Developmental Disorders, Vol. 19, p167-172.</u>

Halliday, S.; Potts, M.; Howard, A. and Wright, J. (1992). Caring for people with severe learning difficulties in ordinary houses: Issues of staff stress and support. <u>Mental Handicap, Vol. 20, p137-143.</u>

Harper, D.J. (1994). Evaluating a training package for staff working with people with learning disabilities prior to hospital closure. <u>British Journal of Developmental Disabilities, XL (1), p45-53.</u>

Harris, P. and Thomson, G. (1993). The staff support questionnaire. <u>Mental Handicap, Vol. 21 (4), p122-127.</u>

Harris, P. (1993). The nature and extent of aggressive behaviour amongst people with learning difficulties (mental handicap) in a single health district. <u>Journal of Intellectual Disability Research, Vol. 37 (3), p221-224.</u>

Hastings, R.P. (1993). <u>A functional approach to care staff behaviour.</u> PhD. Thesis, University of Southampton, Southampton

Hastings, R.P. (1995). Understanding Factors That Influence Staff Responses To Challenging Behaviours: An Exploratory Interview Study. <u>Mental Handicap Research. Vol. 8 (4), p296-320.</u>

Hastings, R.P. (1996). Staff strategies and explanations for intervening with challenging behaviours. <u>Journal of Intellectual Disability Research, Vol. 40 (2), p166-175.</u>

Hastings, R.P (1997). Measuring staff perceptions of challenging behaviour: the Challenging Behaviour Attributions Scale (CHABA). <u>Journal of Intellectual Disability Research, Vol. 41 (6), p495-501.</u>

Hastings, R.P. and Remington, B. (1994). Staff behaviour and its implications for people with learning disabilities and challenging behaviours. <u>British Journal of Clinical Psychology, 33, p423-438.</u>

Hastings, R.P. and Remington, B. (1994). Rules of Engagement: Towards an Analysis of Staff Responses to Challenging Behaviour. <u>Research in Developmental Disabilities. Vol. 15 (4), p279-298.</u>

Hastings, R.P.; Remington, B. and Hopper, G.M. (1995). Experienced and inexperienced health care workers' beliefs about challenging behaviours. <u>Journal of Intellectual Disability Research, Vol. 39 (6). P474-483.</u>

Hastings, R.P., Reed, T.S. and Watts, M.J. (1997). Community Staff Causal Attributions about Challenging Behaviour in People with Intellectual Disabilities. <u>Journal of Applied Research in Intellectual Disabilities. Vol. 10 (3), p238-249.</u>

Hatton, C. and Emerson, E. (1993). Organisational predictors of staff stress, satisfaction and intended turnover in a service for people with multiple disabilities. <u>Mental Retardation, Vol. 31, p388-395.</u>

Hatton, C., Brown, R., Caine, A. and Emerson, E. (1995). Stressors, coping strategies and stress-related outcomes among direct care staff in staffed houses for people with learning disabilities. <u>Mental Handicap Research. Vol. 8 (4), p252-271.</u>

Heider, F. (1958). <u>The Psychology of Interpersonal Relations.</u> New York: Wiley.

Heyman, B.; Swain, J.; Gillman, M.; Handyside, E.C. and Newman, W. (1997). Alone in the crowd: how adults with learning difficulties cope with social network problems. Social Science and Medicine, Vol. 44, p41-53.

Heyman, B.; Swain, J. and Gillman, M. (1998). A Risk Management Dilemma: how day centre staff understand challenging behaviour. Disability and Society. Vol. 13 (2), 163-182.

Hile, M.G. and Walbran, B.B. (1991). Observing staff-resident interactions: what staff do, what residents receive. Mental Retardation, Vol. 29, p35-41.

Hill, B.K. and Bruinincks, R.H. (1984). Maladaptive behaviour of mentally retarded individuals in residential facilities. American Journal of Mental Deficiency, Vol. 88, p380-387.

Holland, A. (1998). Common Legal Issues in Clinical Practice. In Clinical Psychology and People with Intellectual Disabilities. (ed. Emerson, E.; Hatton, C.; Bromley, J. and Caine, A.). John Wiley and Sons Ltd: Chichester.

Howell, D.C. (1997). Statistical Methods for Psychology, Fourth Edition. Duxbury Press: London.

Intagliata, J. and Willer, B. (1982). Reinstitutionalization of mentally retarded persons successfully placed into family-care and group homes. American Journal of mental Deficiency, Vol. 87., p34-39.

Iwata , B.A.; Dorsey, M.F.; Slifer, K.J.; Bauman, K.E. and Richman, G.S. (1982), Toward a functional analysis of self-injury. Analysis and Intervention in Developmental Disabilities, Vol. 2, p3-20.

Jaspars, J.; Hewstone, M. and Fincham, F.D. (1983). Attribution Theory and Research: The State of the Art. In J. Jaspars; F.D. Fincham and M. Hewstone (eds.) Attribution Theory and Research: Conceptual Development and Social Dimensions. Academic Press: London.

Jenkins, R.; Rose, J. and Lovell, C. (1997). Psychological well-being of staff working with people who have challenging behaviour. Journal of Intellectual Disability Research. Vol. 41 (6), p502-511

Jones, E.E. and Davis, K.E. (1965). A theory of correspondent inferences: From acts to dispositions. In L. Berkowitz (Ed.), Advances in Experimental Social Psychology, Vol. 2, New York: Academic Press.

Kahn, R.; Rolfe, D.; Quinn, R.; Snoek and Rosenthal, J. (1964). Organisational Stress: Studies in Role Conflict and Ambiguity. New York: Wiley.

Kelley, H.H. (1973). The process of causal attribution. American Psychologist, Vol. 28, p107-128.

Kobe, F.H. and Mulick, J.A. (1995). Attitudes towards mental retardation and eugenics: the role of formal education and experience. Journal of Developmental and Physical Disabilities, Vol. 7 (1), p1-9.

La Vigna, G.W. and Donnellan, A.M. (1986). Alternatives to Punishment: Solving behaviour Problems with Non-Aversive Strategies. Irvington, New York.

Lawson, D.A. and O'Brien, R.M. (1994). Behavioural and self-report measures of staff burnout in developmental disabilities. Journal of Organisational Behaviour Management, Vol. 14 (2), p37-54.

Lazarus, R.S. and Folkman, S. (1984). Stress, Appraisal and Coping. New York: Springer Publishing Co.

Lowe, K and Felce, D. (1995). How do carers assess the severity of challenging behaviour? A total population study. Journal of Intellectual Disability Research. Vol. 39 (2), p117-127.

Luckasson, R.; Coulter, D.L.; Plloway, E.A.; Reiss, S; Schalock, R.L.; Snell, M.E.; Spitalnick, D.M. and Stark, J.A. (1992). Mental Retardation: Definition, Classification and Systems of Supports (9th edition). American Association on Mental Retardation: Washington DC.

McCormack, H.M.; De L. Horne, D.J. and Sheather, S. (1988). Clinical Applications of visual analogue scales: a critical review. Psychological Medicine, Vol. 18, p1007-1019.

McGill, P. and Mansell, J. (1995). Community placements for people with severe and profound learning disabilities and serious challenging behaviour. Journal of Mental Health (UK). Vol. 4(2), p183-198.

McKenzie, K.; McIntyre, S.; Matheson, E. and Murray, G. C. (1999). Health and social care workers' understanding of the meaning and management of challenging behaviour in learning disability services. Journal of Learning Disabilities for Health and Social Care. Vol. 3 (2), p98-105.

McKenzie, K.; Simpson, F.; Matheson, E.; Murray, G.C. and Paxon, D. (1999). Challenging Experiences. Learning Disability Practice, Vol. 2 (3), p8-11.

McKenzie, K.; Paxton, D.; Patrick, S.; Matheson, E. and Murray, G. (2000). An evaluation of the impact of a one-day course on the knowledge of health and social care staff working in learning disability services. Journal of Learning Disabilities, Vol. 4 (2), p153-165.

Mace, F.C. and Mauk, J.E. (1995). Bio-behavioural diagnosis and treatment of self injury. Mental Retardation and Developmental Disability Research reviews, Vol. 1, p104-110.

Maslach, C. (1982). Burnout- The cost of caring. Engelwood Cliffs, NJ: Prentice-Hall.

Maurice, P and Trudel, G. (1982). Self-injurious behaviour prevalence and relationship to environmental events. In J. H. Hollis and C. E. Meyers (Eds.) Life threatening behaviour: Analysis and Intervention. Washington D C : American Association on Mental Deficiency.

Morch, W. and Eikeseth, S. (1992). Some issues in staff training and improvement. Special issue: community based treatment programmes: some problems and promises. Research in Developmental Disabilities, Vol. 13 (1), p43-55.

Morrison, D.P. (1983). The crichton visual analogue scale for the assessment of behaviour in the elderly. Acta Psychiatrica Scandinavica, Vol. 68, p408-413.

Munton, A.G.; Silvester, J.; Stratton, P. and Hanks, H. (1999). Attributions in Action. A Practical Approach to Coding Qualitative Data. John Wiley & Sons, Chichester.

Murray, G.C.; McKenzie, K.; Quigley, A. and Sinclair, B. (1999). Gender differences in assault levels in a health service unit for people with learning disabilities and severely challenging behaviour. Journal of Learning Disabilities for Health and Social Care. Vol. 3 (3), p144-147.

Nagarajaiah, R.; Chandrashekar, D. and Parthasarathy, R. (1994). Perceived skills of multipurpose health workers in the management of mental disorders. NIMHANS Journal, Vol. 12 (1), p15-20.

Noone, S. and Iceton, J. (1995). Do staff change the way they attribute causality and blame about clients with challenging behaviours after staff training? Paper presented at British Institute of Learning Disabilities International Conference on Challenging Behaviour, September, Oxford.

O'Brien, J. and Tyne, A. (1981). The Principles of Normalisation: A Foundation for Effective Services. The Campaign for Mentally Handicapped People: London.

Oliver, C. (1991). The application of analogue methodology to the functional analysis of challenging behaviour. In The Challenge of Severe Mental handicap: A Behaviour Analytic Approach. (ed. Remington, B.) John Wiley an Sons Ltd: Chichester.

Oliver, C.; Hall, S.; Hales, J. and Head, D. (1996). Self-injurious behaviour and people with intellectual disabilities: assessing the behavioural knowledge and causal explanations of care staff. Journal of Applied Research in Intellectual Disabilities, Vol. 9, p229-239.

Oppenheim, A.N. (1992). Questionnaire Design, Interviewing and Attitude Measurement. New Edition. Pinter Publishers: London.

Pahl, J. and Quine, L. (1984). Families with Mentally Handicapped Children: A Study of Stress and of Service Response. Canterbury: University of Kent Health Services Research Unit.

Payne, R. (1999). Stress at Work: A Conceptual Framework. In J. Firth-Cozens and R. Payne, (Eds) Stress in Health Professionals. Psychological and Organisational Causes and Interventions. Wiley, Chichester, UK.

Peine , H.A.; Darvish, R.; Adams, K.; Blakelock, H.; Jenson, W. and Osborne, J.G. (1995). Medical problems, maladaptive behaviours and the developmentally disabled. Behavioural Interventions, Vol. 10, p119-140.

Perlow, R. and Latham, L.L. (1993). Relationship of client abuse with locus of control and gender. A longitudinal study. Journal of Applied Psychology, Vol. 78, p831-834.

Peterson, C. and Villanova, P. (1988). An Expanded Attributional Style Questionnaire. Journal of Abnormal Psychology. Vol. 97 (1), p87-89.

Poster, E.C. and Ryan, J.A. (1993). At risk of assault. Nursing Times, Vol. 89, p30-33.

Powell, G.E. (1996). The selection and development of measures. In G. Parry and F.N. Watts (eds.) Behavioural and Mental Health Research. A Handbook of skills and methods (2nd edition)., p29-57. Erlbaum: London.

Quadrel, M.J. and Lau, R.R. (1989). Health promotion, health locus of control and health behaviour: two field experiments. Journal of Applied Social psychology, Vol. 19, p1497-1521.

Qureshi, H. (1993). Prevalence of challenging behaviour in adults. In I. Fleming and B.S. Kroese (eds.). People with learning disability and severe challenging behaviour. New developments in services and therapy. Manchester: Manchester University Press.

Rampling, D.J. and Williams, R.A. (1977). Evaluation of group processes using visual analogue scales. Australian and New Zealand Journal of Psychiatry, Vol. 11, p189-191.

Repp, A.C.; Felce, D. and Barton, L.E. (1988). Basing the treatment of stereotypic and self-injurious behaviours on hypotheses of their causes. Journal of Applied Behaviour Analysis, Vol. 21, p281-289.

Rose, J. and Holmes, S. (1991). Changing staff attitudes to the sexuality of people with mental handicaps: an evaluative comparison of one and three day workshops. Mental Handicap Research, Vol. 4 (1), p67-79.

Rose, J. (1993). Stress and staff in residential settings: the move from hospital to the community. Mental Handicap, Vol. 6, p312-332.

Rose, J. (1995). Stress and residential staff: towards an integration of existing research. Mental Handicap Research. Vol. 8 (4), p220-236.

Rose, J. (1996). Stress and staff who work with people with learning disabilities. PhD. University of Hertfordshire.

Rose, J. (1997). Stress and stress management among residential care staff. Tizard Learning Disability Review, Vol. 2 (1), p8-15.

Rose, J., Jones, F. and Fletcher, B. (1998). Investigating the relationship between stress and worker behaviour. Journal of Intellectual Disability Research. Vol. 42 (2), p163-172.

Rotter, J. (1966). Social learning and clinical psychology. New York: Prentice-Hall.

Rusch, R.G.; Hall , J.C. and Griffin, H.C. (1986). Abuse provoking characteristics of institutionalised mentally retarded individuals. American Journal of Mental Deficiency, Vol. 90, p618-624.

Sandman, C.A. and Hetrick, W.P. (1995). Opiate mechanisms in self-injury. Mental Retardation and Developmental Disability Research Reviews. Vol. 1, p130-136.

Schmidt, G. and Weiner, B. (1988). An attribution-affect-action theory of behaviour: replications of judgements of help giving. Personality and Social Psychology Bulletin. Vol. 14, p610-621.

Schroeder, S.R. and Tessel, R. (1994). Dopaminergic and sertonergic mechanisms in self-injury and aggression. In T. Thompson and D.B. Gray (eds.) Destructive Behaviour in Developmental Disabilities: Diagnosis and Treatment. Sage: Thousand Oaks, CA.

Sharrard, H.E. (1992). Feeling the strain: Job stress and satisfaction of direct care staff in the mental handicap service. The British Journal of Mental Subnormality, Vol. XXXVIII (Part 1, No. 74), p32-38.

Sharrock, R.; Day, A.; Qazi, F. and Brewin, C.R. (1990). Explanations by professional care staff, optimism and helping behaviour: an application of attribution theory. Psychological Medicine, Vol. 20, p849-855.

Slevin, E. (1995). Student nurses' attitudes towards people with learning disabilities. British Journal of Nursing. Vol. 4 (13), p761-766.

Smith, B. and Cumella, S. (1996). Training for staff caring for people with learning disabilities. British Journal of Learning Disabilities, Vol. 24, p20-25.

Smithson, M.; Amato, R.P. and Pearce, P. (1983). Dimensions of Helping Behaviour. Pergamon Press: Oxford.

Spector, P. (1999). Individual differences in the job stress process of health care professionals. In J. Firth-Cozens and R. Payne, (Eds) Stress in Health Professionals. Psychological and Organisational Causes and Interventions. Wiley, Chichester, UK.

Sperlinger, A. (1997). In Adults with Learning Disabilities. (ed. O'Hara, J. and Sperlinger, A.). John Wiley and Sons Ltd: Chichester.

Stancliffe, R.J.; Hayden, M.F. and Lakin, K.C. (1999). Interventions for challenging behaviour in residential settings. The American Journal on Mental Retardation, Vol. 104, p364-375.

Stanley, B. and Standen, P.J. (2000). Carers' attributions for challenging behaviour. British Journal of Clinical Psychology, 39, p157-168.

Sutherland, V.J. and Cooper, C.C. (1990). Understanding Stress. London: Chapman Hall.

Thompson, S.C. (1981). Will it hurt less if I can control it? A complex answer to a simple question. Psychological Bulletin, Vol. 90, p89-101.

Thompson, S. (1987). Stress in staff working with mentally handicapped people. In R. Payne and J. Firth-Cozens (eds.) Stress in Health Professionals. Chichester: Wiley.

Thurman, S. (1997). Challenging behaviour through communication. British Journal of Learning Disabilities, Vol. 25, p111-116.

Ward, L. (1987). After induction- then what? British Journal of Mental Subnormality, Vol. 33 (2), p131-142.

Ward, L. (1989). An ordinary life: The early views and experiences of residential staff in the Wells Road Service. Mental Handicap, Vol. 17, p6-9.

Weiner, B. (1980). A cognitive (attribution)- emotion- action model of helping behaviour: an analysis of judgements of help giving. Journal of Personality and Social Psychology, Vol. 39, p186-200.

Weiner, B. (1986). An Attributional Theory of Motivation and Emotion. New York: Springer-Verlag.

West, M. and Rushton, R. (1986). The drop-out factor. Nursing Times, Dec 31, Vol. 52., p29-31.

Whittington, R. and Wykes, T. (1989). Invisible injury. Nursing Times. Vol. 85 (42), p30.

Wilson, P., Reid, D. and Korabek-Pinowski, C. (1991). Analysis of public verbal feedback as a staff management procedure. Behavioural Residential Treatment, Vol. 6 (4), p263-277.

Wing, L. (1996). The Autistic Spectrum: A Guide for Parents and Professionals. Constable & Co. Ltd: London.

Wolfensberger, W. (1972). The Principles of Normalisation in Human Services. National Institute of Mental Retardation: Toronto.

World Health Organisation (1992). ICD-10 classification of mental and behavioural disorders: clinical description and diagnostic guidelines. Geneva: World Health Organisation

Ziarnik, J.P. and Bernstein, G.S. (1982). A critical examination of the effect of inservice training on staff performance. Mental Retardation, Vol. 20 (3), p109-114.

APPENDIX

Appendix 1.   Consent Forms

CONSENT FORM

Dear Participant,

The following questionnaire is being used in a study that is investigating various variables relating to staff that work in learning disability services with people that display challenging behaviour.

Variables such as staff characteristics (e.g. sex and age) are being investigated in relation to the experience of challenging behaviour. In addition we are investigating beliefs about the causes of challenging behaviour and job stress.

Participation is voluntary and results are anonymous and confidential. There is no obligation to participate and it will not affect any aspect of your job if you choose not to take part. Results will not be made available to any other party.

If you would like further information about the study please contact the investigators.

Thank you for taking part in this study, your responses are greatly appreciated.

Yours sincerely

Kirstin Sharp
Trainee Clinical Psychologist

CONSENT FORM

Please initial box

I confirm that I have read and understand the information above
for the study and have had the opportunity to ask questions.

I understand that my participation is voluntary and that I am free
to withdraw at any time.

I understand that all responses are anonymous and confidential.

I agree to take part in the study.

Name of Participant	Date	Signature

Name of Person taking Consent (if different from researcher)	Date	Signature

Researcher	Date	Signature

Appendix 2.   Challenging Behaviour Questionnaire

Challenging Behaviour Questionnaire

Please answer the following questions to the best of your ability:

Place of Work:.................................

Years working in Learning Disability Services:.........................

Sex: (Please circle)   Male/ Female   **Age:**.........................

Have you received training in Challenging Behaviour? (Please circle)   Yes/   No

If yes, please describe <u>how much</u> and the <u>type of training</u> received:

For the following questions, please put a cross on the line that best reflects your view:

1. How much do you feel you know about learning disabilities?

Very Little   A Lot

2. How much do you feel you know about challenging behaviour?

Very Little   A Lot

3. How much do you feel you know about managing challenging behaviour?

Very Little   A Lot

4. Do you work with clients who display the following types of behaviour?

a) Violence and Aggression to others: Yes/   No
         (e.g. hitting, biting, pulling hair etc.)

         If yes: How often? (e.g. every day).....................................
                How severe? (e.g. causes injury)..................................
                How long does each episode last? (e.g. 5 minutes).............

b) Self- Injurious Behaviour: Yes/   No
         (e.g. head-banging, eye-poking, hand-biting etc.)

         If yes: How often?...
                How severe?..
                How long does each episode last?...............................

c) Destructive Behaviour: Yes/   No
         (e.g. breaking windows, tearing clothes, throwing furniture etc.)

         If yes: How often?..
                How severe?...
                How long does each episode last?...............................

d) Disruptive Anti-Social Behaviour: Yes/   No
         (e.g. screaming, running away, stripping etc.)

         If yes: How often?..
                How severe?...
                How long does each episode last?...............................

e) Stereotyped Behaviour: Yes/   No
         (e.g. body rocking, finger flicking, pacing etc.)

         If yes: How often?..
                How severe?...
                How long does each episode last?...............................

f) Overly Passive Behaviour: Yes/   No
         (e.g. withdrawal, lack of engagement etc.)

         If yes: How often?..
                How severe?...
                How long does each episode last?...............................

5. Give three reasons why clients display each of the following behaviours?

a) **Violence and Aggression to others:**   1.

(e.g. hitting, biting, pulling hair etc.)   2.

     3.

b) **Self- Injurious Behaviour:**   1.

(e.g. head-banging, eye-poking,   2.
hand-biting etc.)

     3.

c) **Destructive Behaviour:**   1.

(e.g. breaking windows, tearing clothes,   2.
throwing furniture etc.)

     3.

d) **Disruptive Anti-Social Behaviour:**   1.

(e.g. screaming, running away,   2.
stripping etc.)

     3.

e) **Stereotyped Behaviour:**   1.

(e.g. body rocking, finger flicking,   2.
pacing etc.)

     3.

f) **Overly Passive Behaviour:**   1.
(e.g. withdrawal, lack of engagement etc.)

     2.

     3.

6. **For each of the following types of behaviour rate how much you feel the behaviour is <u>internal</u> (e.g. part of the person's personality or disposition) or <u>external</u> (e.g. due to some aspect of the situation or environment).**

a) Violence and Aggression to others:
   (e.g. hitting, biting, pulling hair etc.)
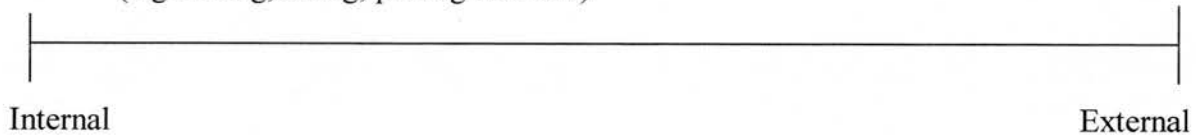
Internal   External

b) Self- Injurious Behaviour:
   (e.g. head-banging, eye-poking, hand-biting etc.)

Internal   External

c)   Destructive Behaviour:
   (e.g. breaking windows, tearing clothes, throwing furniture etc.)

Internal   External

d)   Disruptive Anti-Social Behaviour:
   (e.g. screaming, running away, stripping etc.)

Internal   External

e)   Stereotyped Behaviour:
   (e.g. body rocking, finger flicking, pacing etc.)

Internal   External

f)   Overly Passive Behaviour:
   (e.g. withdrawal, lack of engagement etc.)
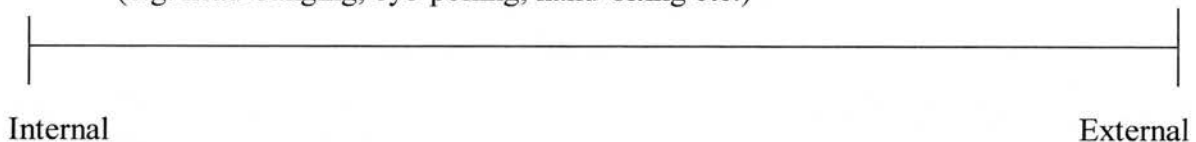
Internal   External
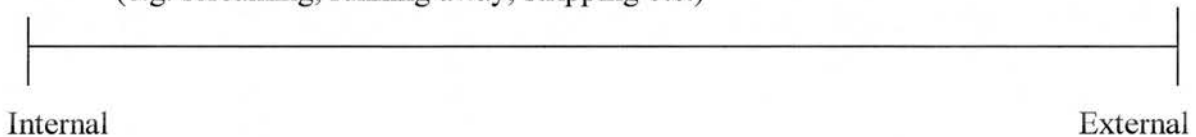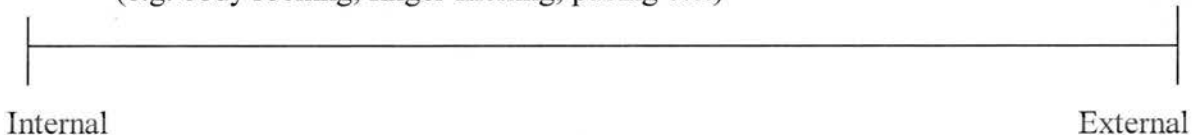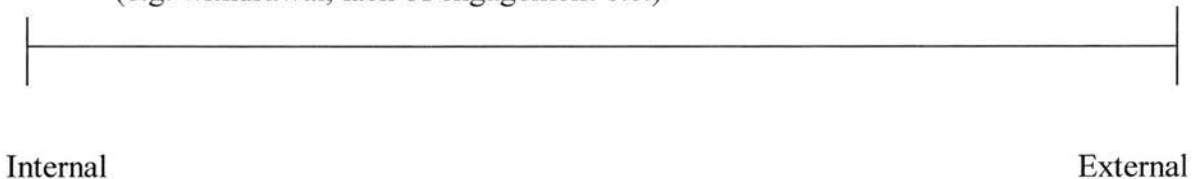
7. **In what situations do you feel each of the following behaviours occur?**

   a) **Violence and Aggression to others**:
      (e.g. hitting, biting, pulling hair etc.)

   All situations   Only in specific situations

   b) **Self- Injurious Behaviour:**
      (e.g. head-banging, eye-poking, hand-biting etc.)

   All situations   Only in specific situations

   c) **Destructive Behaviour:**
      (e.g. breaking windows, tearing clothes, throwing furniture etc.)

   All situations   Only in specific situations

   d) **Disruptive Anti-Social Behaviour**:
      (e.g. screaming, running away, stripping etc.)

   All situations   Only in specific situations

   e) **Stereotyped Behaviour:**
      (e.g. body rocking, finger flicking, pacing etc.)

   All situations   Only in specific situations

   f) **Overly Passive Behaviour:**
      (e.g. withdrawal, lack of engagement etc.)

   All situations   Only in specific situations

8. **How much do you feel each of the following behaviours is <u>stable</u> (e.g. behaviour is persistent and will always be that way) or <u>unstable</u> (e.g. the behaviour is transient or can change).**

a) Violence and Aggression to others:
(e.g. hitting, biting, pulling hair etc.)

Will always behave that way   Can change behaviour

a) Self- Injurious Behaviour:
(e.g. head-banging, eye-poking, hand-biting etc.)

Will always behave that way   Can change behaviour

c)   Destructive Behaviour:
(e.g. breaking windows, tearing clothes, throwing furniture etc.)

Will always behave that way   Can change behaviour

d)   Disruptive Anti-Social Behaviour:
(e.g. screaming, running away, stripping etc.)

Will always behave that way   Can change behaviour

e)   Stereotyped Behaviour:
(e.g. body rocking, finger flicking, pacing etc.)

Will always behave that way   Can change behaviour

f)   Overly Passive Behaviour:
(e.g. withdrawal, lack of engagement etc.)

Will always behave that way   Can change behaviour

6

9. **How much self-control do clients have over the following types of behaviour?**

a) Violence and Aggression to others:
    (e.g. hitting, biting, pulling hair etc.)

Very Little   A Lot

b) Self-Injurious Behaviour:
    (e.g. head-banging, eye-poking, hand-biting etc.)

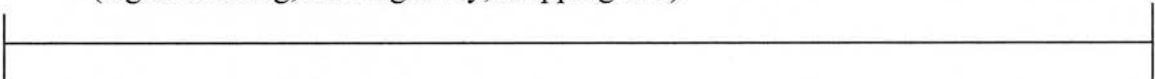Very Little   A Lot

c)   Destructive Behaviour:
    (e.g. breaking windows, tearing clothes, throwing furniture etc.)
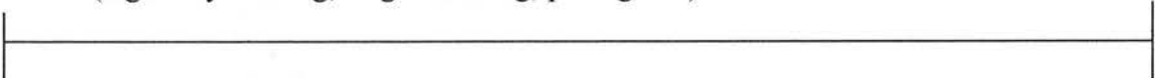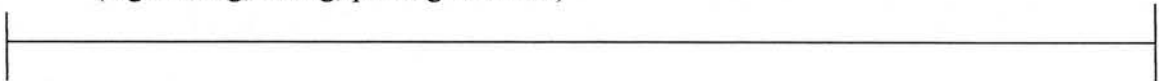
Very Little   A Lot

d)   Disruptive Anti-Social Behaviour:
    (e.g. screaming, running away, stripping etc.)

Very Little   A Lot

e)   Stereotyped Behaviour:
    (e.g. body rocking, finger flicking, pacing etc.)

Very Little   A Lot
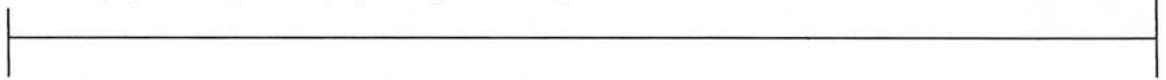
f)   Overly Passive Behaviour:
    (e.g. withdrawal, lack of engagement etc.)

Very Little   A Lot

10. **How confident would you feel in your ability to work with clients who display the following types of behaviour?**

a) **Violence and Aggression to others**:
(e.g. hitting, biting, pulling hair etc.)

|———————————————————————|

No confidence   Very Confident

b) **Self- Injurious Behaviour:**
(e.g. head-banging, eye-poking, hand-biting etc.)

|———————————————————————|

No confidence   Very Confident
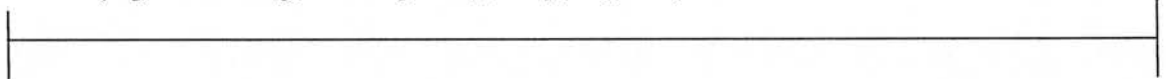
c) **Destructive Behaviour:**
(e.g. breaking windows, tearing clothes, throwing furniture etc.)

|———————————————————————|

No confidence   Very Confident

d) **Disruptive Anti-Social Behaviour:**
(e.g. screaming, running away, stripping etc.)

|———————————————————————|

No confidence   Very Confident

e) **Stereotyped Behaviour:**
(e.g. body rocking, finger flicking, pacing etc.)

|———————————————————————|

No confidence   Very Confident

f) **Overly Passive Behaviour:**
(e.g. withdrawal, lack of engagement etc.)

|———————————————————————|

No confidence   Very Confident

11. **How stressful would you find it to work with clients who display the following types of behaviour?**

a) **Violence and Aggression to others**:
(e.g. hitting, biting, pulling hair etc.)

|————————————————————————————————————|

Very stressful   Not stressful at all

b) **Self- Injurious Behaviour:**
(e.g. head-banging, eye-poking, hand-biting etc.)

|————————————————————————————————————|

Very stressful   Not stressful at all

c) **Destructive Behaviour:**
(e.g. breaking windows, tearing clothes, throwing furniture etc.)

|————————————————————————————————————|

Very stressful   Not stressful at all

d) **Disruptive Anti-Social Behaviour**:
(e.g. screaming, running away, stripping etc.)

|————————————————————————————————————|

Very stressful   Not stressful at all

e) **Stereotyped Behaviour**:
(e.g. body rocking, finger flicking, pacing etc.)

|————————————————————————————————————|

Very stressful   Not stressful at all

f) **Overly Passive Behaviour:**
(e.g. withdrawal, lack of engagement etc.)

|————————————————————————————————————|

Very stressful   Not stressful at all

12. Overall, how stressful do you find your current job?

Very stressful   Not stressful at all

13. What are the three most stressful things about your current job?

1)

2)

3)

14. What three things help you most in dealing with stress in your current job?

1)

2)

3)

15. How satisfied are you with your current job?

Not satisfied   Very satisfied

16. How supported do you feel by your manager in your current job?

Not supported   Very supported

17. How supported do you feel by your colleagues in your current job?

Not supported   Very supported

18. How much support does your staff group get from your community learning disability team?

Not supported   Very supported

19. How much would you like to leave your current job and do something else?

Not al all   Very much

20. How many days do you estimate you have been off sick from work in the last year?

21. How does your current work make you feel in relation to:

a) Anxiety

Not anxious at all   Very anxious

b) Depression

Not depressed at all   Very depressed

c) Physical Illness

Not ill at all   Very ill

Any additional comments:

Thank you for taking the time to fill in this questionnaire.

Appendix 3.   Scoring Criteria for Written Responses

Scoring Written Responses and Examples from Categories

Scoring from Bromley and Emerson (1995) paper.

1. Internal psychological state or mood

(e.g. stress, anxiety, frustration, needs to be reassured)

Mental health, jealousy, anger, fear, frustration, annoyance, irritation, emotional, agitation, unhappy, mood swings, impatience, upset, low self esteem, nervous, self loathing, depression, disappointment, panic, excited, strong feelings directed inwards, anxiety, shy, remorse, lack of confidence, insecurity

2. Past environment

(e.g. childhood, home circumstances, institutionalization, sexual abuse)

Abuse, institutionalized, past incident

3. Current environment

(e.g. lack of male involvement, reaction to change, lack of staffing, social isolation)

Provocation, inappropriate staffing, isolation, lack of guidance, change in environment, change in routine, something happened elsewhere, situations, visitors, crowds, noise, surroundings, environmental, staff mismanagement, strange places, not sufficient staff support, long periods of isolation, needs not met, argument, lack behaviour award

4. Self-stimulatory

(e.g. enjoyment, boredom, form of play, sensory stimulation)

Boredom, lack of something to do, enjoyment, comforting, calming, self stimulation, sensation, fun, lack of occupation, feel good, no stimulation, no sense direction, lack of purpose, lack of motivation, lonely, contentment, time for self, occupy hands, need something to do, lack directional input, fed up, habitual, routine

5. Communication/ Expression of Feelings

(e.g. when wants something, manipulative)

Power display, self expression, to get what they want, power seeking, trying to communicate something, for effect, feelings of control, mischieviousness, rebellion, expressing how feel, release, getting out of system, venting feelings

6. Attention seeking

(e.g. likes to get attention)

Attention seeking, to gain a reaction, to be seen, not to be forgotten

7. Medical problems/ medication effects

(e.g. constipation, PMT, hernia, pain)

PMT, pain, medical problems, epilepsy, illness, medication, sensory deficit, eyesight problems, hearing problems

8. Learning disability or specific syndrome

(e.g. autism, asperger syndrome, rett syndrome, intellectual impairment)

Degree of learning disability, autism, part of condition, type of resident, personality, hyperactivity, type of behaviour

9. Mental illness

(e.g. psychosis, hallucination, personality disorder)

Disturbed, mental illness, manic

10. Lack of communication/ lack of social skills/ skills deficit/ lack of understanding

(e.g. frustration at lack of ability to communicate)

Inability to express self, communication problem, unable to express emotions, cannot make self understood, inability to express feelings, can't verbalize emotion, lack social skills, not getting own way, poor impulse control, not understanding, unaware social rules, expectations not met, inability to cope, confusion

11. Escape or avoidance

(e.g. occurs when demands are made)

Not wanting anyone near, not wanting to do something, not liking what is going on, avoidance, stopping an activity, demand, withdrawal, avoiding unwanted situation/ challenge, not wanting to participate, dislike

12. Drive State (added on to thesis)

Hungry, tired, sexual frustration, need toilet

13. Other

Survival, coping strategy, learned behaviour, thinking

<u>Stress Categories</u>

1. Other Staff

Poor relations, poor communication, staff dissatisfaction, staff not working together, no clear goals, staff laziness, interaction with staff playing power games, staff inconsistencies, lack of communication, staff complaining, people not doing what they say they will, staff, staff not being there for you, staff off sick, communicating with difficult staff, staff need to be more of a team

2. Policy Issues/ management/ outside agencies

Policy issues, lack superior's interest in progression and development, dealing with outside agencies who do not support, the manager, lack of recognition of the needs of the clients, inexperienced management, occupational health, lack of support upper management, changing expectations of outside agencies

3. Work issues

Sleepovers, isolation, too much to do, recording, people not going out, finding sufficient time to give more support, long hours, frustration at inability to use skills would like to, sudden changes of programme, long delay in starting activities, interruption, boring doing same things every week, time to complete tasks, lack of time, noise, paperwork, too many courses, changes in house, responsibility, house crowded, large group number, too many things on at once, individual guidelines, groups of different abilities, being within centre, demands of a busy service, pressure of work

4. Lack of resources

Having staff to deal with behaviour, lack of staff, lack of resources, lack of funding, lack of knowledge, not able to work 1:1

5. Client behaviour/ needs

Client punching, hitting, dealing with challenging behaviour, client behaviour, unsure how clients will react, dealing with aggression and violence, being grabbed on sensitive parts of body, quick client reactions, shouting, screaming, waiting on edge, verbal abuse, distress of clients, unpredictability, tantrums, clients have a bad day, uncertainty, being injured, alone with aggressive client, manic behaviour, client mood changes, clients difficult to interact with, high support needs, disruptive behaviour

6. Client (other)

History issues of clients, clients not moving on, assessing mood of clients, inability to change

7. Other

New- getting to know others, switching off from home life, equal opportunities, new- wanting to do well, new- not wanting to make mistakes

<u>Coping Categories</u>

1. Support Others/talking/ supervision

Staff meetings, supervision with team leader, discussions with other staff, speaking to line manager, speaking to colleagues, better communication, other staff's experience, support family, discussion with social work, staff, talking, supervision, working as a team, listening to others, support, full staff team

2. Time off

Holidays, quiet time, lunch break

3. More resources

More staff, more funding, more resources, smaller group

4. Recreation/ activities outside work

Prayer, faith, do other things in spare time that use skills, reading, counselling and mediation work outside work, watercolour class, sailing, exercise, walking, smoking, alcohol, music

5. Rewarding

Like other staff, rewarding, satisfaction

6. Training/ Experience/Knowledge

Training, information to find out about techniques, having awareness, skill, courses, having trained staff on duty, gaining more knowledge, past experience

7. Clients

Going out with residents that would normally cause problems, positive responses of client, client achievements, getting to know clients, good relationship with clients, getting to know clients

8. Personal Reaction

Conscious effort not to let things bother, moving on to something brighter, keeping calm, humour, switching off, do not take self too seriously, think clearly

9. Working Conditions

Being able to leave client alone, part time, relaxed atmosphere, variety, reduction noise level, flexibility within centre

Appendix 4.   ASQ

1. You experience a client being violent or aggressive (e.g. hitting, biting, pulling hair).

A. Is the cause of this due to something about the client or something about other people or circumstances? (circle one number)

Totally due to others	1	2	3	4	5	6	7	Totally due to the client

B. In the future, will this cause again be present? (circle one number)

Never Present	1	2	3	4	5	6	7	Always Present

C. Is this cause something that affects just this type of situation, or does it also influence other areas of the client's life? (circle one number)

Just this Situation	1	2	3	4	5	6	7	All Situations

D. To what extent was the cause controllable by, or uncontrollable by, the client? (circle number)

Completely Uncontrollable by the Client	1	2	3	4	5	6	7	Completely Controllable by the Client

2. You experience a client displaying self-injurious behaviour (e.g. head banging, eye poking, hand biting).

A. Is the cause of this due to something about the client or something about other people or circumstances? (circle one number)

Totally due to others	1	2	3	4	5	6	7	Totally due to the client

B. In the future, will this cause again be present? (circle one number)

Never Present	1	2	3	4	5	6	7	Always Present

C. Is this cause something that affects just this type of situation, or does it also influence other areas of the client's life? (circle one number)

Just this Situation	1	2	3	4	5	6	7	All Situations

D. To what extent was the cause controllable by, or uncontrollable by, the client? (circle number)

Completely Uncontrollable by the Client	1	2	3	4	5	6	7	Completely Controllable by the Client

3. You experience a client displaying destructive behaviour (e.g. breaking windows, tearing clothes, throwing furniture).

A. Is the cause of this due to something about the client or something about other people or circumstances? (circle one number)

Totally due to others	1	2	3	4	5	6	7	Totally due to the client

B. In the future, will this cause again be present? (circle one number)

Never Present	1	2	3	4	5	6	7	Always Present

C. Is this cause something that affects just this type of situation, or does it also influence other areas of the client's life? (circle one number)

Just this Situation	1	2	3	4	5	6	7	All Situations

D. To what extent was the cause controllable by, or uncontrollable by, the client? (circle number)

Completely Uncontrollable by the Client	1	2	3	4	5	6	7	Completely Controllable by the Client

4. You experience a client displaying disruptive behaviour (e.g. screaming, running away, stripping).

A. Is the cause of this due to something about the client or something about other people or circumstances? (circle one number)

Totally due to others	1	2	3	4	5	6	7	Totally due to the client

B. In the future, will this cause again be present? (circle one number)

Never Present	1	2	3	4	5	6	7	Always Present

C. Is this cause something that affects just this type of situation, or does it also influence other areas of the client's life? (circle one number)

Just this Situation	1	2	3	4	5	6	7	All Situations

D. To what extent was the cause controllable by, or uncontrollable by, the client? (circle number)

Completely Uncontrollable by the Client	1	2	3	4	5	6	7	Completely Controllable by the Client

5. You experience a client displaying stereotyped behaviour (e.g. body rocking, finger flicking, pacing).

A. Is the cause of this due to something about the client or something about other people or circumstances? (circle one number)

Totally due to others	1	2	3	4	5	6	7	Totally due to the client

B. In the future, will this cause again be present? (circle one number)

Never Present	1	2	3	4	5	6	7	Always Present

C. Is this cause something that affects just this type of situation, or does it also influence other areas of the client's life? (circle one number)

Just this Situation	1	2	3	4	5	6	7	All Situations

D. To what extent was the cause controllable by, or uncontrollable by, the client? (circle number)

Completely Uncontrollable by the Client	1	2	3	4	5	6	7	Completely Controllable by the Client

6. You experience a client displaying overly passive behaviour (e.g. withdrawal, lack of engagement).

A. Is the cause of this due to something about the client or something about other people or circumstances? (circle one number)

| Totally due to others | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Totally due to the client |

B. In the future, will this cause again be present? (circle one number)

| Never Present | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Always Present |

C. Is this cause something that affects just this type of situation, or does it also influence other areas of the client's life? (circle one number)

| Just this Situation | 1 | 2 | 3 | 4 | 5 | 6 | 7 | All Situations |

D. To what extent was the cause controllable by, or uncontrollable by, the client? (circle number)

| Completely Uncontrollable by the Client | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Completely Controllable by the Client |

Appendix 5.   GHQ

THE GENERAL HEALTH QUESTIONNAIRE

GHQ 28

David Goldberg

Please read this carefully.

We should like to know if you have had any medical complaints and how your health has been in general, *over the past few weeks*. Please answer ALL the questions on the following pages simply by underlining the answer which you think most nearly applies to you. Remember that we want to know about present and recent complaints, not those that you had in the past.

It is important that you try to answer ALL the questions.

Thank you very much for your co-operation.

Have you recently

A1 — been feeling perfectly well and in good health?	Better than usual	Same as usual	Worse than usual	Much worse than usual
A2 — been feeling in need of a good tonic?	Not at all	No more than usual	Rather more than usual	Much more than usual
A3 — been feeling run down and out of sorts?	Not at all	No more than usual	Rather more than usual	Much more than usual
A4 — felt that you are ill?	Not at all	No more than usual	Rather more than usual	Much more than usual
A5 — been getting any pains in your head?	Not at all	No more than usual	Rather more than usual	Much more than usual
A6 — been getting a feeling of tightness or pressure in your head?	Not at all	No more than usual	Rather more than usual	Much more than usual
A7 — been having hot or cold spells?	Not at all	No more than usual	Rather more than usual	Much more than usual
B1 — lost much sleep over worry?	Not at all	No more than usual	Rather more than usual	Much more than usual
B2 — had difficulty in staying asleep once you are off?	Not at all	No more than usual	Rather more than usual	Much more than usual
B3 — felt constantly under strain?	Not at all	No more than usual	Rather more than usual	Much more than usual
B4 — been getting edgy and bad-tempered?	Not at all	No more than usual	Rather more than usual	Much more than usual
B5 — been getting scared or panicky for no good reason?	Not at all	No more than usual	Rather more than usual	Much more than usual
B6 — found everything getting on top of you?	Not at all	No more than usual	Rather more than usual	Much more than usual
B7 — been feeling nervous and strung-up all the time?	Not at all	No more than usual	Rather more than usual	Much more than usual

Have you recently

| C1 – | been managing to keep yourself busy and occupied? | More so than usual | Same as usual | Rather less than usual | Much less than usual |

C1 – been managing to keep yourself busy and occupied?
More so than usual — Same as usual — Rather less than usual — Much less than usual

C2 – been taking longer over the things you do?
Quicker than usual — Same as usual — Longer than usual — Much longer than usual

C3 – felt on the whole you were doing things well?
Better than usual — About the same — Less well than usual — Much less well

C4 – been satisfied with the way you've carried out your task?
More satisfied — About same as usual — Less satisfied than usual — Much less satisfied

C5 – felt that you are playing a useful part in things?
More so than usual — Same as usual — Less useful than usual — Much less useful

C6 – felt capable of making decisions about things?
More so than usual — Same as usual — Less so than usual — Much less capable

C7 – been able to enjoy your normal day-to-day activities?
More so than usual — Same as usual — Less so than usual — Much less than usual

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D1 – been thinking of yourself as a worthless person?
Not at all — No more than usual — Rather more than usual — Much more than usual

D2 – felt that life is entirely hopeless?
Not at all — No more than usual — Rather more than usual — Much more than usual

D3 – felt that life isn't worth living?
Not at all — No more than usual — Rather more than usual — Much more than usual

D4 – thought of the possibility that you might make away with yourself?
Definitely not — I don't think so — Has crossed my mind — Definitely have

D5 – found at times you couldn't do anything because your nerves were too bad?
Not at all — No more than usual — Rather more than usual — Much more than usual

D6 – found yourself wishing you were dead and away from it all?
Not at all — No more than usual — Rather more than usual — Much more than usual

D7 – found that the idea of taking your own life kept coming into your mind?
Definitely not — I don't think so — Has crossed my mind — Definitely has

A [ ]   B [ ]   C [ ]   D [ ]   TOTAL [ ]

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