

University of Leicester

**Staff Stress and Challenging Behaviour: The
Relationship between Stressors, Personality,
Coping Strategies, Behavioural Knowledge and
Psychological Distress in Care Staff.**

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Roman A. Raczka Staff Stress and Challenging Behaviour: The Relationship between Stressors, Personality, Coping Strategies, Behavioural Knowledge and Psychological Distress in Care Staff.

ABSTRACT

Objective

This research study investigated relationships between factors that influence the experience of psychological stress by staff working in residential services supporting adults with learning disabilities and challenging behaviours.

A psychological model was developed that related the personality traits of direct care staff with their personal coping style, behavioural knowledge and emotional reaction when exposed to environmental stressors and investigated the impact on psychological distress experienced.

Design

A self-report questionnaire study on sixty-nine direct care staff working in an independent sector community based service for adults with learning disabilities and severely challenging behaviours. Correlation and regression analyses were employed to examine relationships between the different factors.

Method

Staff completed a battery of measures including versions of the Eysenck Personality Questionnaire (EPQ-R), Shortened Ways of Coping (Revised) Questionnaire (SWC-R), the General Health Questionnaire (GHQ), Knowledge of Behavioural Principles (KBPAC), Care Staff's Emotional Reactions to Aggressive Challenging Behaviours and Work and Client Sources of Stress Checklist.

Results

Staff reported high levels of stress. A significant association was found between Neurotic personality type, the use of wishful-thinking coping strategies, a negative emotional reaction to challenging behaviours and greater levels of psychological distress. No association was found between knowledge of behavioural principles and stress.

Discussion

Support was found for the proposed psychological model for staff stress. Clinical implications were discussed that have a direct influence on the way in which staff working in services for people who challenge are supported by clinical psychologists. Suggestions were made for future research in the area.

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1. INTRODUCTION

1.1 Staff Working In Challenging Services – An Overview of the Issues

Fundamental to the provision of services for people with learning disabilities is the expectation that service providers will strive to develop high quality services that provide a valued lifestyle for service users, encompassing the promotion of independence, choice and social inclusion, as outlined in the 2001 White Paper, Valuing People: A New Strategy for Learning Disability for the 21st Century (Department of Health, 2001). The provision of effective and high quality support for people who present with challenging behaviours in addition to their learning disabilities has been one of the most significant challenges to be faced by community services (Joyce, Ditchfield & Harris, 2001). Staffing issues are of utmost importance to anyone interested in the provision of high quality services; staff provide the interface through which policies and philosophies are translated into practical actions and, in order to provide a high quality and effective service, it is essential to be supported by a high quality workforce. Consequently, over recent years, increasing attention has been focussed on staffing issues in services for

people with learning disabilities, (Rose, 1995). It has been recognised that staff costs make up the largest percentage of service expenditure. At a time of ever increasing pressure on limited resources, cost effectiveness and prudence in spending are of paramount consideration, opportunities to develop services which are more cost effective are always welcomed (Felce, Lowe, Perry, Baxter, Jones, Hallam & Beecham, 1998; Emerson, Robertson, Gregory, Hatton, Kessissoglou, Hallam, Knapp, Jarbrink, Netten & Walsh, 1999). However it is also recognised that community based services vary widely in the quality of service provided to people (Emerson & Hatton, 1994). High quality staff performance is not simply attained by changing the type or model of service provision e.g. from Hospital to community or residential care home to supported living (Felce, de Kock & Repp, 1986). Attention needs to be focussed on the various factors that exert influence on staff performance.

Staff performance is believed to be influenced by three key factors; firstly, 'characteristics of the organisation' in which staff work, which would include the "informal culture" (e.g. accepted ways of working, level of social support) and the "formal culture" (e.g. service guidelines, service philosophy, physical aspects of the work place, support provided to staff); secondly, 'characteristics of staff themselves' this would include personal factors (e.g. attitude towards service users, beliefs/attributions about service users' behaviours, level of staff stress, coping

strategies) and demographic factors (e.g. gender, educational level age, experience of learning disability) and thirdly, 'characteristics of the service users' including age, gender, challenging behaviour and level of dependence (Hastings, Remington & Hatton, 1995).

A significant interest has been generated in the stress responses of staff working in services for people with learning disabilities. Recent surveys have shown that up to 30 percent of staff working in services for people with learning disabilities report levels of stress indicative of psychiatric problems (Hatton, Rivers, Mason, Mason, Kiernan, Emerson, Alborz & Reeves, 1999). High levels of work stress have been associated with poor staff performance (Rose & Schelewa-Davies, 1997), discontinuities in the quality of care offered to service users (Emerson & Hatton, 1996) and increased staff turnover rates and absenteeism (Felce, Lowe & Beswick, 1993). However there are still many more areas to research. Hastings, Remington and Hatton (1995), proposed a framework, encompassing staff, service user and organisation characteristics, within which research on staff performance in learning disability can be integrated. They go on to state that: "Researchers interested in staff behaviour are in a unique position to contribute to the development of high quality service environments for people with learning disabilities and for those

who act as caregivers...” (Hastings, Remington & Hatton, 1995).

In the following review of the literature, consideration will firstly be given to the challenging behaviours service provision context to set the scene, this will include defining what is meant by ‘challenging behaviours’, describing the potential challenges faced by staff as a consequence of the challenging behaviours exhibited by people with learning disabilities, outlining the prevalence rates of learning disability and challenging behaviour in order to give an indication of the ‘size of the problem’ and a description of the types of residential accommodation provided for people with challenging behaviours. Secondly, there will be a review of the staff stress literature, including discussion of the literature on psychological coping styles and the association between individual personality types and the experience of stress. Thirdly, there will follow a discussion of the literature on emotional reactions to challenging behaviours. Fourthly, the research on staff causal beliefs and knowledge will be considered. Fifthly, the various strands of research will be drawn together, the research knowledge to date will be summarised and key areas requiring further investigation will be discussed. Finally the present research study will be outlined describing a proposed psychological model to describe the inter-relationship between the factors that are associated with staff stress. The key areas to be addressed within this study will be

identified together with a set of research hypotheses to be investigated.

1.2 Defining Challenging Behaviours

Over the past ten years the term "Challenging Behaviour" has increasingly been used to replace terms that have previously been used, such as "Problem Behaviour" or "Behavioural Disorder", to refer to the needs of people with learning disabilities who present with difficulties in the way in which they behave towards themselves or towards others.

The expression "Challenging Behaviour" was used to reflect an emerging trend during that period that the problem behaviour presented by the individual was not something inherently wrong with the person, but came out of the way in which the behaviour was perceived, tolerated or managed by the staff and/or carers working with the individual. Challenging Behaviour was defined by Emerson as "Culturally abnormal behaviour of such an intensity or 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).

The specific types of behaviours which were considered to be 'challenging' and cause a significant management problem to carers included behaviours such as, physical aggression towards others, self-injurious behaviours, verbal aggression/excessive vocalisations, anti-social behaviours, and other behaviours (including pica and inappropriate sexual behaviours).

When considering the types of behaviours that are presented by the individual and deemed to be challenging it is important to consider that the challenging behaviour will be defined in terms of its impact on the individual or on others. As such the behaviour will vary in its form and in the biological and psychological processes which underlie the behaviour. For example, the challenging behaviour of hitting others will vary considerably from one individual to another depending on the personal physical characteristics of the individual, the context in which the behaviour occurs and the factors which underlie the behaviour in each of the different individuals. Consequently the nature and severity of the challenge of any particular behavioural presentation will be seen to be different from one person to another.

Challenging behaviour must be understood as a social construction. The behaviours, which are manifest and described as challenging, are recognised as such because they transgress

social rules. The circumstances which lead to a particular behaviour within an individual, being described as being challenging will be based on a complex interaction between a number of different factors including the person's action, the setting or context in which the behaviour occurs and how the behaviour is understood and interpreted by other people involved.

Finally, it is important to recognise that challenging behaviours will have wide ranging personal and social consequences for the individual and for others who come into contact with the person. The behaviours that give rise to challenge may directly impair the health and quality of life of the individual who is manifesting the behaviours. It may also directly impair the health and the quality of life of the carers of the individual as well as people who live or work alongside the person. In fact the degree to which a behaviour may be deemed to be challenging depends not only on the nature or topography of the behaviour but also on the abilities of carers and staff to respond to that behaviour to either ameliorate or discourage it, or to reduce the impact which it has on the individual or on others (Lowe & Felce, 1995).

Existing behavioural models of challenging behaviours suggest that the interactions between the person with challenging behaviours and the staff supporting that person are best understood within a systems analysis model in which staff

behaviour affects challenging behaviour and vice versa (e.g. Hastings & Remington, 1994). Research has begun to demonstrate that staff behaviour towards people with learning disabilities and additional challenging behaviours may be under the control of contingencies that are related to how they experience or perceive the challenging behaviour (Hastings & Remington, 1994). It has been proposed that there is a cycle of reinforcement in which the staff's behaviour elicited by the challenging behaviour will be consistent with the function of that challenging behaviour (Hall & Oliver, 1992). An example of this is self-injurious behaviour may have the function of gaining positive reinforcement; if staff experience the self injury as aversive they may act to end their own aversive experiences by intervening to give attention to the person and consequently stop the person self-injuring. The staff behaviour is both negatively reinforced by the termination of, and also provides reinforcement to, the self-injurious behaviour. The aversive effect of such behaviour on the staff may be explained, from a cognitive perspective, by the staff's emotional and cognitive response to the behaviour (Hastings & Remington, 1995).

To summarise, attempting to understand the relationship between challenging behaviours and staff responses may not only identify contingencies impacting on staff outcomes (including staff stress and staff emotional responses), but also

contribute to the understanding of the mechanisms for the development and maintenance of challenging behaviours

1.3 Prevalence of Challenging Behaviours

Studies considering the prevalence rates of learning disabilities report wide variation in the figures (e.g. Fryers, 1993; McLaren & Bryson, 1987). This is due to a number of different factors including the sampling method, classification criteria of learning disabilities and the assessment methods used. From the normal distribution of intelligence approximately 3% of the population would score below 70 on a standardised I.Q. assessment and therefore fall within the classification of having a learning disability. Therefore general prevalence rates suggest approximately 20 people per 1,000 of the total UK population (Fryers, 1993). This suggests approximately 1.2 million people in the U.K. The general prevalence of severe learning disabilities is somewhere between 3 - 6 per 1,000 of the total population representing approximately 210,000 children and adults in the UK population (McLaren & Bryson, 1987).

In terms of the numbers who present with challenging behaviours there are number of methodological difficulties in any case finding study to identify prevalence rates. However, it is generally believed that somewhere between 6% and 14% of people with learning disabilities do present with some form of

challenging behaviour (Emerson 1995; McLaren & Bryson, 1987).

Of the total learning disability population it is suggested that in terms of people receiving residential services there are approximately 10,000 places in NHS facilities, 53,400 places in residential care homes, and an estimated 84,000 receiving community based services (including day care, home help, meals, etc.) (Department of Health, 2001).

1.4 Residential Accommodation for people with challenging behaviours

Traditionally adults with learning disabilities and challenging behaviours have lived in either learning disability hospital settings or in specialist residential units. Throughout the 1980's and 1990's a significant shift in care provision for people with learning disabilities took place moving away from the traditional hospital or institution based services to services that were located within local communities. Service provision was influenced by ideologies, such as "Normalisation" (O'Brien & Tyne 1981; Wolfensberger, 1972) and the "Framework for Accomplishment" (O'Brien 1987). These principles emphasised the integration of people with learning disabilities into local communities.

In order to achieve an 'Ordinary Life' people were moved out of institutional settings into ordinary community based housing. The 1990's saw a rapid growth in staffed residential accommodation in the community offering people with learning disabilities an option to live within ordinary community settings nearer to family members in better accommodation with higher staff levels and a more individualised package of care. However, adults with challenging behaviours were either less likely to move out from the institution into the community facility, or were the last people to leave (Felce, Lowe & de Paiva, 1995). People with challenging behaviours were not included in the moves to community services as rapidly as other people with learning disabilities. A number of projects were set up and evaluated including the Nimrod Project and the Andover Developments (Felce, Lowe & de Paiva, 1995), which represented attempts at providing ordinary residential facilities for adults with a challenging need integrated within ordinary housing. The Special Development Team set up by the South East Thames Regional Health Authority (SETRHA) describe an individualised approach to meeting the needs of people with extreme and durable challenging behaviour within individually designed projects (McGill, Emerson & Mansell 1995). Throughout the 1990's a number of residential projects were set up around the country to provide ordinary housing for adults with learning disabilities and challenging behaviours (Blunden & Allen, 1987).

Generally it is agreed that for effective residential services to be offered to people with learning disabilities and challenging behaviours the services should be relatively small, avoid large numbers of people living together, be staffed by individuals who are well trained and managed, offer active support to service users and emphasise meaningful activities, both during the day and at leisure times with opportunities for relationships to develop and new skills and behaviours to be learned. To provide a valued, high quality lifestyle for people with challenging behaviours emphasis should be placed on approaches which work at establishing new skills and relationships within an active support model (Mansell, Hughes & McGill, 1994).

Debate has been ongoing as to whether it is more desirable to have a residential facility for people who challenge, or whether people could be maintained in their own homes with a peripatetic team of specialists providing intensive support (along the lines of the SETRHA Special Development Team). The advantages and disadvantages of residential units have been reviewed in detail (Newman & Emerson, 1991) and the specialist teams have also been evaluated (Emerson & McGill, 1993). Felce, Lowe Perry, Baxter, Jones, Hallam & Beecham, (1998) in a survey study of adults with severe learning disability and the most severe challenging behaviour in Wales, concluded

that community services were preferred to traditional (institutional) services in terms of a range of quality of life outcomes. They found that community services were considerably more expensive, however they raised doubts as to whether these costs could be justified because community settings with higher staff to resident ratios did not have better results in terms of quality of care, quality of life and service utilisation and costs than similar settings with lower staff ratios. The research demonstrated that the link between resource input and quality of process and outcome is not certain, a suggestion made by other similar studies (Felce & Perry, 1995; Hatton, Emerson, Robertson, Henderson & Cooper, 1995). However it should be highlighted that the residents in this study were a particularly disabled and challenging group and therefore it is reasonable to assume that greater staff input is justified. Overall, it appears that in order to provide effective and high quality community-based services, a combination of service provision is necessary.

1.5 Staff Stress

One of the most significant areas of research interest to have emerged over recent years, particularly within services that are provided for people with learning disabilities who have additional complex needs including challenging behaviours, is that of staff stress (e.g. Sharrard, 1992; Rose, 1995; Rose, 1999). Much of

the literature has concentrated on examination of the elements which can contribute to, or ameliorate, stress (e.g. Sharrard, 1992; Stenfort-Kroeese & Fleming, 1992; Potts, Halliday, Plimley, Wright & Cuthbertson, 1995). However a number of authors have begun to develop models as to how the various elements may be interconnected (Hatton & Emerson, 1993; Hastings, Remington & Hatton, 1995; Rose, 1995, 1997) focussing on direct care staff working in residential services for adults with learning disabilities.

Before reviewing the literature, it is important to clarify the use of the word 'stress' itself. The term 'stress' can be ambiguous, it can be used to describe the 'stressors' (external factors to the individual) as well as the resultant 'stress reaction' (internal experiences of the individual) (Rose, 1998).

Traditionally, stress research has focussed on studies involving the body's reaction (neurological and physiological) to stress and the cognitive processes that influence the perception of stress. There are a number of definitions of 'stress' as well as a number of events that can lead to the experience of stress. Stressful situations may be viewed as harmful, as threatening, or as challenging. With so many factors potentially contributing to stress it can therefore be difficult to define the concept of 'stress'. Selye (1982) highlighted that few people define the concept of stress in the same way; he suggested that an

important aspect of stress is that a wide variety of dissimilar situations are capable of producing a similar stress response in the same individual, such as fatigue, effort, pain, fear and even success. One of the most comprehensive models of stress is the 'Biopsychosocial Model of Stress' (Bernard & Krupat, 1994). This model proposes that stress involves three components: an external component, an internal component, and the interaction between the external and internal components.

The external component of the Biopsychosocial Model of Stress involves environmental events that precede the recognition of stress and can elicit a stress response; these may be described as 'stressors'. Most of the commonly experienced stressors fall within four broad categories: personal, social/familial, work and the environment.

The internal component of stress involves a set of neurological and physiological reactions to stress. Selye (1985) believed that the stress response can result from a variety of different kinds of stressors and consequently he focussed on the internal aspects of stress. He defined stress as a "non-specific response of the body to any demand made upon it". Selye (1982) identifies two distinct types of stress: 'Eustress' – the optimal amount of stress which helps promote health and development – a positive and essentially valuable form of stress that will contribute to the well-being of the individual. The second type of stress was

termed 'Distress' – stress resulting from an excess of adaptive demands (stressors) placed upon the person – distress is potentially unpleasant and harmful.

Selye (1985) reported that a person subjected to prolonged external stressors goes through three phases: the Alarm Reaction, Stage of Resistance and Exhaustion, he termed this set of stress responses as the 'General Adaptation Syndrome (GAS)'. This general stress response to external stressors is viewed as a set of reactions that mobilise the individual's resources to deal with an impending threat. The Alarm Reaction is equivalent to the 'fight or flight' response and includes the various neurological and physiological responses when confronted with a stressor. This is observed in both eustress and distress. If the person is subjected to prolonged stressors, they remain in a continued state of arousal and enter the Stage of Resistance. The Exhaustion stage occurs after prolonged 'Resistance'. During this stage, the body's energy reserves are finally exhausted resulting in distress and may lead to physical illness. Selye (1985) refers to illnesses that may occur, including headaches, insomnia, high blood pressure and cardiovascular and kidney diseases as "diseases of adaptation".

The third component of the Biopsychosocial Model of Stress is the interaction between the external and internal components, involving the individual's cognitive processes. Lazarus &

Folkman (1984) proposed a cognitive theory of stress, describing this interaction between the individual and their environment as a 'transactional relationship'. Their theory places emphasis on the psychological 'meaning' that an event has for the individual rather than on the physiological responses. Lazarus & Folkman (1984) believed that an individual's interpretation of a situational event determines as to whether it is experienced as stressful or not, making stress the consequence of appraisal. The way an individual appraises an event plays a fundamental role in determining the magnitude of the stress response, but also the kind of coping strategies the individual employs to deal with the stressful events and their reaction. (see section 1.6 Stress and Coping for a more detailed discussion).

To summarise, in this research context 'stress' may be defined as a condition in which there is a marked perceived discrepancy between demands that are placed on an individual and the individual's ability to respond, the consequences of which may be detrimental to future experiences essential for the physical and psychological well being of that person (Appley & Trumbull, 1967; Lazarus, 1966; Selye, 1956). 'Stressors' may be defined as the environmental events that precede the recognition of stress and elicit a stress response (Bernard & Krupat, 1994). 'Distress' may be defined as the physiological and psychological consequences resulting from an excess of adaptive demands

(stressors) placed upon the person that is potentially unpleasant and harmful. (Selye, 1985; Lazarus & Folkman, 1984). Within any given situation each individual response to the stressful situation will be dependent upon a variety of factors which include the extent of the demand, their own personal characteristics, coping styles, personal or environmental restrictions with regard to the situation and support received from others (Rabin, Feldman & Kaplan, 1999).

There has been much research into stress in nursing staff, identifying factors inherent in the nurse's role that are major sources of stress (e.g. Guppy & Gutteridge, 1991; Tyler & Cushway, 1992). In psychiatric nursing settings, studies have suggested that organisational constraints and administrative demands were more significant stressors than direct patient care (McGrath, Reid & Boore, 1989). Issues such as staff shortages, long hours, financial cutbacks, lack of feedback and poor supervision were found to be associated with low job satisfaction and high emotional distress (Carson, Leary, Villiers Fagin & Radmall, 1995; Kennedy & Grey, 1997). A number of studies have found that reported stress was related to seniority in nursing (e.g. Nolan & Cushway, 1995) in contrast to other research which reported higher levels of distress in staff who are younger, less experienced, under high work pressure, with low social support and who spend a high proportion of their work

time occupied in direct patient care (Livingston & Livingston, 1984).

The potential development of a chronic stress response within the learning disability service context may ultimately lead to staff burnout and have a profound negative consequence for the overall service delivery. Maslach and Jackson (1981) describe the burnout syndrome as “a debilitating, psychological condition commonly associated with chronic stress comprising of emotional exhaustion, depersonalisation and reduced personal accomplishment”. “Burnout” represents the outcome of a prolonged process of attempting to cope with demanding stressors. The depersonalisation aspect of burnout involves the development of negative and potentially callous attitudes about the service recipients whilst reduced personal accomplishments involve perceived low expectations and negative self worth. Emotional exhaustion refers to the depletion of personal resources. Burnout has been related consistently and negatively to health, work performance, job satisfaction, quality of life and psychological well being (Maslach, Jackson & Leiter, 1996).

Turnover of staff working in services for people with learning disabilities has been a problem for many years. Baumeister & Zaharia (1987) found turnover rates of untrained care workers in large American institutions between 26% and 35% per year.

Turnover rates in community based facilities in America were between 14% and 400% with an average of 55% (Baumeister & Zaharia, 1987). Recent studies in the UK, suggest annual turnover rates varying from 5% to 48% (Felce, Lowe & Beswick, 1993). Whilst there are many factors contributing to staff turnover, not only to do with the individual, the organisation, and the wider economic forces, it has been suggested that there is a complex relationship between chronic staff stress, staff burnout and staff turnover (Hatton & Emerson, 1995).

Given the apparent significance of staff stress to service provision, researchers have attempted to identify the factors that may have an impact on staff's experience of stress. Research studies in learning disabilities have focussed on three key areas, the characteristics of the care staff themselves, the characteristics of the service users and the characteristics of the services or organisations in which staff work that may affect staff performance, job satisfaction and distress.

Staff characteristics that have been associated with high levels of distress include: staff beliefs and emotional responses to their work (Bromley & Emerson, 1995); younger staff age (Razza, 1993); anxiety (Power & Sharp, 1988); personal ill-health (Browner, Ellis, Ford, Silsby, Tampoya & Yee, 1987) and the types of coping strategies used by staff (Hatton & Emerson, 1995). Shaddock, Hill & van Limbeek (1998) investigated the

personal characteristics of staff associated with levels of stress. They found an association between lower levels of stress and some demographic variables e.g. the practice of religion and higher levels of stress with some personal perceptions of the workplace e.g. lower job satisfaction. From the general literature on stress it is generally accepted that factors including age, sex of the individual, general physical health and personality may influence levels of distress (Fletcher, 1991).

Studies investigating the relationship between staff stress response and service user characteristics have found that potential sources of staff stress include service users' level of functioning (Zaharia & Baumeister, 1978); service users' progress (Dyer & Quine, 1998) and service users capacity for social interaction (Buckhalt, Marchetti & Bearden, 1990). Researchers have considered the association between staff stress and service users who present with challenging behaviours (Bersani & Heifetz, 1985; Bromley & Emerson, 1995). In challenging behaviour services, studies suggest that the most significant cause of carer stress was "the persistent recurrent nature of challenging behaviours over time" (Bromley & Emerson, 1995). Significant contributing factors impacting on the staff stress were "lack of effective behavioural intervention strategies", "unpredictability of behavioural episodes" and "carer's inability to understand why the behaviour occurred". Interestingly whilst the threat of injury or anxiety about the

physical strength of the client were reported these were deemed to be less significant sources of staff stress. However, Cottle, Kuipers, Murphy & Oakes (1995) found that, following violent assaults on staff working in learning disability services and mental health settings, anxiety increased by statistically significant levels and returned to baseline within one month.

Staff perceptions of the demands associated with working with people with challenging behaviours have been shown to be significant predictors of stress (Dyer & Quine, 1998). Chung & Corbett (1998) and Chung, Corbett & Cumella (1995) asked staff working with adults with learning disabilities to assess the degree of challenging behaviour of the resident for whom they were responsible and compared scores on this rating scale with staff's level of stress. Results suggested that burnout was found to be high and predicted by the service user's challenging behaviour. In a study by Jenkins, Rose & Lovell (1997) comparisons were made between stress experienced by staff working in services with high levels of challenging behaviour with that experienced by staff working in services with low levels of challenging behaviour. Results showed that staff working with people with high levels of challenging behaviour reported more anxiety in comparison to staff working in settings with lower levels of challenging behaviours.

Freeman (1994), in a longitudinal study, found that staff who worked with a larger proportion of service users in their care home engaging in challenging behaviours, reported more negative attitudes to service users and higher levels of stress after a twelve month period compared with staff working in homes with lower numbers of challenging service users. Hastings & Brown (2002) found that with special education staff, who rated their perceptions of exposure to challenging behaviour and the severity of challenging behaviour, higher levels of stress (rated on the Maslach Burnout Inventory) were predicted by exposure to more severe challenging behaviour.

The characteristics of services or organisations have been shown to have an impact on levels of staff stress. Workplace factors associated with higher levels of staff stress include: excessive workloads (Power & Sharp, 1988); low income (Bersani & Heifetz, 1985); lack of job security (Rose, 1995); lack of promotion prospects and limited opportunities for training and skills development (Hatton & Emerson, 1993) and a lack of job variety (Allen, Pahl & Quine, 1990). Organisational issues that have been associated with increased levels of staff stress include a hierarchical organisational structure (Hatton & Emerson, 1983); a lack of involvement in decision-making (Dyer & Quine, 1998) and dissatisfaction with the team climate (Rose & Schelewa-Davies, 1997). Role ambiguity (Blumenthal, Lavender & Hewson, 1998); role conflict (Dyer & Quine, 1998)

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

A number of studies have been carried out to consider the issues of stress in staff who work in community-based services. It is generally believed that behaviours of service users in community settings will pose much greater demands and potential stresses on carers compared to an institutional setting (e.g. Stenfert Kroese and Fleming, 1992). When living in a community based setting within ordinary accommodation and accessing community facilities, the impact of residents' needs and behaviours may be perceived as being much greater. Staff may also find greater difficulties in motivating and in supporting the individuals in developing new skills. One of the additional demands within a community setting which may represent a significant source of stress is the potential isolation from colleagues, which results from working in a relatively low staff situation within the community (Rose, 1995). In a study comparing burnout and job satisfaction among 160 hospital and community-based staff in mental health settings, using the Maslach Burnout Inventory (Maslach & Jackson, 1981) and the General Health Questionnaire (Goldberg & Williams, 1988), Prosser, Johnson, Kuipers, Szmuckler, Bebbington & Thornicroft (1996) found that community-based staff had significantly higher scores on both the General Health Questionnaire (GHQ-12) and

the Maslach Burnout Inventory. Of interest was the finding that the mean GHQ-12 score for the whole sample was indicative of a highly stressed group. Rose, Jones and Fletcher (1998) investigated the relationship between stress and worker behaviour in community residential services. They found some evidence from observational data that there was an association between stress (as measured by the Depression and Anxiety scale of the 'Thoughts and Feelings Index' (Fletcher, 1989)) in staff and their behaviour. Larger amounts of assistance and positive interaction were seen in the houses where staff reported lower levels of stress. There was also a tendency towards higher levels of interaction with residents in these homes. These factors are generally recognised as important indicators of high quality services and so if quality is influenced by staff stress, it emphasises the need to support staff in reducing levels of reported stress.

Whilst there appears to be a growing literature to suggest an association between challenging behaviours and staff distress and that service users' challenging behaviours are an important factor in the development of distress, the majority of studies reviewed do not provide direct evidence of a causal link due to the studies not including a direct measurement of the exposure of staff to challenging behaviour. Furthermore, the studies have not taken into consideration the necessity, for a causal relationship to exist, of the challenging behaviour episode to

precede the staff stress response. It may be argued that the reverse causal relationship may be an alternative explanation of the association, i.e. the level of staff distress is influencing the level of challenging behaviour (Rose, Jones & Fletcher, 1998).

To summarise, there is clearly an association between working in services for people with challenging behaviours and stress, however the strength of this association is difficult to ascertain. A number of studies have design and methodological problems, which make it difficult to exclude alternative explanations for the association between challenging behaviour and staff distress. The use of the term 'stress' itself is potentially ambiguous and open to different interpretations, it may be used to describe stressors external to the person, as well as the resultant internal experience of the individual (Briner & Reynolds, 1993). Different studies use questionnaire measures of well being and/or anxiety and depression as indicators of distress. These measures include a wide range of different questionnaires requesting information from respondents on various aspects of physical and psychological health. Whilst there may be a relationship between the different measures, this is not always clearly articulated (Rose, Jones & Fletcher, 1998). Finally the studies may have been conducted with staff in substantially different working environments such as community teams and day centres, or with staff at different levels in the same organisation (Thomson, 1987). Further research is necessary to investigate

this potential causal relationship, based on theoretically informed psychological models using a clear definitions and measures of stress, distress and stressors, with a relatively homogenous group of participants.

1.6 **Coping Styles and Stress**

According to Lazarus & Folkman (1984), psychological stress is a 'particular relationship between the person and the environment that is appraised by the person as taxing or exceeding his or her resources and endangering his or her well-being' (p.11). There is an on-going relationship of reciprocal action and reaction, each affecting and in turn being affected by the other. Lazarus & Folkman's theory distinguishes two processes, cognitive appraisal and coping, as critical mediators of stressful person-environment relations and their immediate stress. Cognitive appraisal refers to the process through which the person evaluates his or her well being and if so, in what ways. The process is split into two interdependent classes. Firstly, in primary appraisal, the person evaluates whether he or she has anything at stake in a stressful encounter, for example, the person may evaluate 'threat', questioning the level of threat posed by the problem situation, the likelihood that the event will make the person appear incompetent to others, as well as 'challenge', questioning the extent to which the problem will present a challenge to the person. In secondary appraisal, the person evaluates whether anything can be done to overcome or prevent harm or to improve the prospects for personal benefit. The individual determines which coping options are available, such as challenging the situation, trying to unwind and put things

into perspective, or possibly expressing feelings and frustrations. The mediating stress effects of these two cognitive processes have been investigated in a number of research studies (e.g. MacNair & Elliot, 1992; Florian, Mikulincer & Taubman, 1995). The degree to which a person experiences psychological distress involving feelings of being harmed, threatened or challenged is determined by the relationship between the person and their environment in that specific encounter as it is defined by the evaluation of what is at stake and the evaluation of coping resources and options.

Coping is defined as the person's constantly changing cognitive and behavioural efforts to manage specific external and/or internal demands that are appraised as taxing or exceeding the person's resources (Lazarus & Folkman, 1984). Coping strategies were categorised by Lazarus & Folkman (1984) into two distinct types: 'problem-focussed' techniques (i.e. attempts to solve the problem or master the situation) and 'emotion-focussed' techniques (i.e. attempts to reduce emotional discomfort rather than altering the source of the discomfort). There are three key features to the understanding of coping. Firstly, it is process orientated, meaning it focuses on what the person actually thinks and does in a specific encounter and how this changes as the encounter unfolds. Secondly, coping is viewed as contextual, that is it is influenced by the person's appraisal of the actual demands in the encounter and person's

resources in managing them, consequently the individual and the situation variables together shape the coping efforts. Thirdly, there are no a priori assumptions about what constitutes good or bad coping. Coping is defined simply as a person's efforts to manage demands whether or not the efforts are successful.

Appraisal and coping are believed to continuously influence each other throughout an encounter. For example, an appraisal of harm/loss, threat or challenge stimulates coping efforts that changes the person environment relationship by altering the relationship itself (problem-focussed coping) and/or by regulating emotional distress (emotion-focussed coping). The changed relationship requires some new appraisal or re-appraisal, which in turn engender further coping efforts and so on. The identification of appraisal as a determinant of coping or coping of a determinant of appraisal is seen as provisional depending on where one interrupts the ongoing dynamic relationship between the two (Lazarus & Folkman, 1984; Lazarus, Averill & Opton, 1970).

The cognitive-behavioural theory of stress and coping has been applied to direct care staff working in learning disability services to facilitate understanding of the transactional relationship between potential stressors and their outcomes in terms of the personal impact of the stressful event and its effect on the

individual's psychological well-being. Hastings (1985) found that staff working with adults with challenging behaviours used three coping strategies when dealing with challenging behaviours: detachment, i.e. mentally switching off when they were not at work; support from other people, i.e. talking through challenging incidents with others including staff, friends and family; and taking time out, i.e. taking time to get over the incident during the work shift after a challenging incident or using sickness to recover.

Studies in families of children with learning disabilities on stress and coping have found that coping is an important variable to explain stress responses in parents (Knussen, Sloper, Cunningham & Turner, 1992). The importance of parental coping strategies in influencing parent outcomes (e.g. parental distress, satisfaction with life) and child outcomes (e.g. self-sufficiency, academic attainment and social life) has been demonstrated in studies of informal carers of children and adolescents with learning disabilities (Sloper, Knussen, Turner & Cunningham, 1991; Sloper & Turner, 1991). The relevance of coping strategies to the personal experience of stress has also been reported in organisational and other occupational settings (Cooper & Payne, 1988).

Mitchell & Hastings (2001) found that staff more frequently reported using problem-focussed coping strategies, than

emotion-focussed coping strategies, to cope with aggressive challenging behaviours. They identified three dimensions to coping strategies: adaptive coping, i.e. planning using support from others and taking direct action to manage the challenging behaviours; disengagement coping, i.e. giving up, substance misuse and engaging in displacement activities and denial coping, i.e. denying the significance of the challenging behaviour and use of religious coping. Regression analyses found that disengagement coping predicted stressful responses and adaptive coping predicted higher levels of personal accomplishment (Mitchell & Hastings, 2001). This research suggested that the way staff cope with challenging behaviours is related to their reported levels of stress, however, the study did not have a direct measure of the staff exposure to staff stress.

To summarise, an emerging body of research is developing, which suggests that the way in which staff cope with challenging behaviours has an associated impact on their psychological well-being in terms of the level of distress that they experience. The research has tended to focus on the actual coping processes (i.e. emotion-focussed coping strategies or problem-focussed coping strategies) used by staff to deal with the demands of working with people with challenging behaviours. The use of emotion-focussed coping strategies have been deemed to be 'maladaptive' and seem to be associated with a greater risk of psychological problems, in terms of higher levels

of staff stress or burn out, in response to challenging behaviours. However, this research body is limited and has some methodological shortcomings e.g., lacking a direct measure of the staff exposure to staff stress (Mitchell & Hastings, 2001). Further research in this area is necessary to investigate this potential association between exposure to potentially stressful events, coping strategies employed and outcome in terms of emotional response and stress based on a theoretical psychological model using a clear definition and measures of stress with a homogenous group of participants.

1.7 Assessment of Coping Style

Folkman and Lazarus developed a questionnaire to identify preferences among ways of coping in individuals ("Ways of Coping Questionnaire", Folkman & Lazarus, 1985). Hatton & Emerson (1995) developed a "Shortened Ways of Coping (Revised) Questionnaire (SWC-R)" based on the original Folkman & Lazarus questionnaire. This was a 14 item self-report measure scored on two sub-scales – "practical coping" and "wishful thinking", representing distinct ways of coping. The Shortened Ways of Coping (Revised) Questionnaire was concluded to be a reliable measure of the coping strategies of direct care staff in learning disability services (Hatton & Emerson, 1995).

Hatton, Brown, Caine and Emerson (1995) carried out a study looking at the relationship between self reported stresses, coping strategies (using the Shortened Ways of Coping (Revised) Questionnaire) and stress related outcomes amongst direct care staff working in small staffed houses for people with learning disabilities. They concluded that stresses relating to the emotional impact of the work, violent service user behaviour and the use of a wishful thinking coping strategy were associated with perceived work stress. Stresses relating to the conflict between work and personal or family demands and the use of a wishful thinking coping strategy were associated with the symptoms of general distress. General distress together with conflict between work and personal or family demands and violent service user behaviour were perceived to have a high impact on staff social life.

To summarise, the SWC-R is a reliable measure of staff coping strategies, it is scored into two sub-scales, Practical Coping and Wishful Thinking, representing distinct ways of coping. The questionnaire is brief and easily administered and has shown to be an appropriate measure to use in research studies into direct care staff stress.

1.8 Personality & Stress

Studies have investigated the relevance of the individual's personality to the stress process in a range of different settings and populations including, student nurses (Parkes, 1986); junior doctors (Newbury-Birch & Kamali, 2001); medical staff on bone marrow transplant units (Molassiotis, van den Akker & Boughton, 1995); nursing homes for the elderly (Moroi, 1999) and alcohol dependent Brazilian males (Bau & Salzano, 1995).

Before considering the findings of these research studies in more detail it is important to highlight that there is much debate in the psychology literature about the nature and usefulness of the concept of personality as a way of describing and defining individual differences. There are two significant areas of concern in the study of personality: the first concerns the justification for using dispositional terms in describing personality with the implicit assumption that the idiosyncratic ways in which individuals behave can be compared and contrasted along dimensions or continua which allow individual differences to be measured and the second arises from the belief that an individual's personality is unique with the assumption that an individual's actions have sufficient consistency about them for us to say that their behaviour is to some extent characteristic of the person as well as a function of their environment. These

assumptions have been challenged extensively in the literature (e.g. Pervin, 1990).

Many attempts have been made to create a taxonomy of personality to describe and measure personality types and traits. Dimensional representations of personality have identified between three and sixteen fundamental dimensions. Of the different theorists the most influential are the models of Cattell (1971), Eysenck (1975) and the Big Five Taxonomy (e.g. McCrae & Costa (1996). Each of these models of personality have advantages and shortcomings as follows: Cattell (1971) developed a group factor theory applying cluster and factor analysis to arrive at a set of sixteen primary factors (including Reserved – Outgoing; Dull – Bright; Sober – Happy-go-lucky; Practical – Imaginative etc.) and eight secondary factors (including Adjustment vs Anxiety; Subdued vs Independence etc.), measured by the 16PF. Cattell's complex system was comprehensive and detailed but has been criticised on many grounds including the fact that the initial analysis was biased by Cattell's own subjective judgements and the failure of other researchers to replicate his findings in subsequent empirical studies.

Eysenck's (1975) dimensional model described three factors Extraversion – Introversion; Neuroticism and Psychoticism, measured by the EPQ. Eysenck's model and measures have

been used extensively in studies of personality and the dimensions of Neuroticism and Extraversion are generally accepted to be two of the fundamental dimensions of personality routinely identified, however the dimension of Psychoticism has been open to empirical and pragmatic criticism.

The third significant theory is that based on the Big Five taxonomy of personality described by a number of theorists including McCrae & Costa (1996) who identified the five factors as Extraversion, Agreeableness, Conscientiousness, Neuroticism and Openness, measured by the NEO-PI. The Big Five describes the dimensions that are included in a number of models and measures of personality however one of the major criticisms of the Big Five is that different researchers have identified a different 'Big Five' (John, 1990), with most disagreement concerning the nature of the fifth factor – Openness.

Whilst there may be debate as to the most appropriate model or theory of personality, there is general agreement as to the relevance of using a model of personality to describe individual differences and the use of personality assessments to measure individual difference. In many respects the measures developed to assess personality may be viewed as phenotypic instruments; they serve a descriptive function, but do not in themselves necessarily offer any explanation concerning causality. The

findings of the research studies should be evaluated taking these factors into consideration.

Bolger & Zuckerman (1995) in a study with university students analysed the link between neuroticism (as measured by the Eysenck Personality Questionnaire Revised (EPQ-R) (Eysenck & Eysenck, 1975)), daily interpersonal conflict, coping with conflicts and distress and found that high-neuroticism participants had greater exposure to, as well as greater reactivity to, conflicts compared to low-neuroticism participants. They found that high- and low-neuroticism participants differed in their choice of coping strategies and in the effectiveness of those efforts. Parkes (1986) in her study on female nursing students, examined individual differences (Extraversion and Neuroticism as measured by the EPQ-R; environmental factors (social support and work demand) and situational characteristics (type of stressful episode and its perceived importance) as predictors of coping (as measured by the Ways of Coping Questionnaire (Lazarus & Folkman, 1984). Parkes (1986) found that interactions between work demand and Neuroticism were significant predictors for direct coping.

In a study amongst healthy Japanese male workers (Imai & Nakachi, 2001) relationships were investigated between personality types, lifestyle, mental stress and vulnerability to developing cancer. Imai and Nakachi (2001) found that

emotionally unstable-introverts had a more unhealthy lifestyle and a higher sensitivity to mental stress compared to stable-extraverts.

Bishop (1999) examined the relationship between personality type, appraisal and coping in stressful situations with nursing and occupational therapy students undergoing examinations. Bishop (1999) was interested in the primary appraisal construct in Lazarus and Folkman's (1984) cognitive-behavioural theory. She questioned whether appraisal served as a mediator between personality and coping or mood (and could be described as a 'maker' of coping and adjustment) or whether appraisal was simply a reflection of the overarching personality type (making it a 'marker' of personality). She found support for Lazarus and Folkman's theory limited to specific personality dispositions. Threat and stress appraisals mediated the relationship between neuroticism and coping and distress. Challenge appraisals mediated the relationship between conscientiousness and distress and coping (only for participants who rated their exam as highly stressful). However neither threat nor challenge appraisals served as mediators between extraversion and coping or distress. She concluded that appraisal served as both a mediator (i.e. a 'maker') of coping and adjustment and as a reflection (i.e. a 'marker') of the overlying, pervasive influence of personality.

Newbury-Birch & Kamali (2001) investigated the relationship between psychological stress (using the GHQ), anxiety, job satisfaction and personality characteristics (using the EPQ) in pre-registration house officers. They found that 37.5% of female doctors and 24% of male doctors were suffering from possible stress related difficulties and there were significant negative correlations between stress and job satisfaction. Stress, anxiety and depression scores were significantly correlated with neuroticism scores in both men and women. The personality characteristic of Neuroticism was found to be a predisposing factor for stress and anxiety.

To summarise, on reviewing the literature, no research studies have been published considering the potential relationship between personality, stress and appraisal in residential care staff in learning disability services. However given the range of studies carried out in other potentially stressful occupational settings and the relevance of their findings, it is suggested that the investigation of the potential association between personality, stress and coping is relevant to this work situation.

1.9 Emotional Reactions to Challenging Behaviours

The emotional reactions of direct care staff when faced with challenging behaviours by service users has been studied in a number of settings including helping behaviour in psychiatric services (Sharrock, Day, Qazi & Brewin, 1990) and also in learning disability services (Dagnan, Trower and Smith, 1998). Self-report research has shown that direct care staff experience a range of negative, emotional responses when faced with episodes of challenging behaviours. Hastings and Remington (1995) reported that the emotional dimensions of working with people with challenging behaviours included a range of emotions including sadness, anger, fear and anxiety.

Hastings (1995) concluded that staff appeared to recognise that their own emotional reactions did influence their behaviour when faced with challenging situations. Direct care staff were asked about their emotions in situations where they witnessed challenging behaviours as well as questions regarding sources of stress in their work and strategies for coping with those stresses. The staff responses to questions about emotions and stress indicated that challenging behaviours were subjectively aversive and they elicited negative emotional states, such as fear, sadness and anger. Emotions described by staff included feeling upset, angry, annoyed, fear and anxiety, irritated, exhausted and tired. Dagnan, Trower & Smith (1998) found that

a negative emotional response was inversely related to a feeling of optimism about being able to manage the difficult behaviour presented by the individual. They also found that negative emotions were significantly related to attributions of controllability in so far as when the staff rated the behaviour as being controllable, they reported fewer negative emotions.

Mitchell and Hastings (1998) developed a psychometrically sound, self-report measure of care staff emotional reactions to aggressive challenging behaviours based on a selection of items from staff self-reports. They revealed two basic dimensions of negative emotion in the face of challenging behaviours, depression/anger and fear/anxiety, reflecting the negative staff experiences within these work environments. The negative emotional reactions to challenging behaviours may help to explain why such behaviours are often rated as significant sources of stress by care givers (Bersani & Heifetz, 1985; Hatton, Brown, Caine & Emerson, 1995).

To summarise, whilst there are, to date, no published studies exploring the potential link between the negative emotions of staff and their behaviour, research has demonstrated that staff emotional reactions to challenging behaviours are related to staff stress (Mitchell & Hastings, 2001), therefore further investigations of emotional reactions are of significance to the provision of high quality services. One area requiring further

investigation is identification of the factors that might predict staff emotional reactions to challenging behaviours.

1.10 Behavioural Knowledge, Training and Staff Performance

There is a growing interest in the effects of staff experience, knowledge or training on staff beliefs about challenging behaviour and their performance when attempting to deal with challenging situations (Hastings, 1997). Early studies (Aitken, Tone, Smith, Wright, Schloss and Plant, 1993) used a multiple choice inventory to assess the behavioural knowledge of 114 direct care, therapeutic and managerial staff in learning disability services. They found a low level of behavioural knowledge amongst the direct care staff. Jenkins, Baxter, Dowton, Gibbs, & Partridge (1999) evaluated a training workshop for staff working with people who had severe learning disabilities and physical disabilities requiring extensive personal care support. Following training they found highly significant increases in knowledge, both immediately and after six months, however there was no evidence of significant change in practice.

It has been found that staff who have higher levels of behavioural knowledge, or who have attended training courses in behavioural approaches to the management of people who challenge, are more likely to adopt behavioural causal beliefs

and to utilise behavioural intervention approaches (Berryman, Evans & Kalbag, 1994). Allen, McDonald, Dunn & Doyle (1997) evaluated the impact of a training procedure in the preventative and reactive management of severely challenging behaviours and found that the training reduced the number of behavioural incidents for most residents.

Staff beliefs (i.e. their causal attributions) are receiving increased interest in the research literature (e.g. Berryman, Evans & Kalbag, 1994; Hastings, 1997). This interest is based on an implicit assumption that staff ideas about the causes of challenging behaviour will influence their responses to it. It has been suggested that attributions interact with a number of other factors to determine staff behaviour (Hastings & Remington, 1994; Hastings, Remington & Hatton, 1995). These factors include staff emotional responses to challenging behaviour, staff beliefs about effective intervention strategies, and formal and informal aspects of service cultures. Morgan & Hastings (1998) examined the relationship between special educators' causal attributions and the underlying function of challenging behaviours in children with learning disabilities using questionnaire vignettes describing attention seeking and task avoidance behaviour. Staff members were asked to identify likely causes of the behaviours and only a small proportion of participants made accurate (behaviourally-oriented) causal attributions about the two examples of challenging behaviour.

The researchers found that staff experience had little effect on the accuracy of attributions made.

Hastings & Brown (2002) investigated seventy-seven staff working in educational settings with children with learning disability and/or autistic spectrum disorder, using self-report questionnaires measuring demographic details, behavioural causal beliefs, perceived self-efficacy, behavioural knowledge (using the Short Form B (Furtkamp, Giffort & Schiers, 1982) of the Knowledge of Behavioural Principles as applied to Children (KBPAC) (O'Dell, Tarler-Benlolo & Flynn, 1979)) and emotional reactions to challenging behaviour. They found evidence that formal qualifications and behavioural knowledge had significant but directionally different effects on staff-reported emotional reactions to challenging behaviours. Formal training as a teacher was associated with more depression/anger reactions, whereas participants with higher levels of behavioural knowledge were less likely to report these emotional reactions. Of additional significance in this study was the finding that staff who endorsed behavioural causal models for challenging behaviours reported more negative emotional reactions. If such beliefs were associated with increased behavioural knowledge then the reverse relationship would be expected. A suggested explanation by the authors was that if staff held behavioural causal explanations then this understanding emphasises causal factors external to the child, therefore by implication staff

endorsing these beliefs may feel more personally responsible for the behaviours and therefore more stressed as a result.

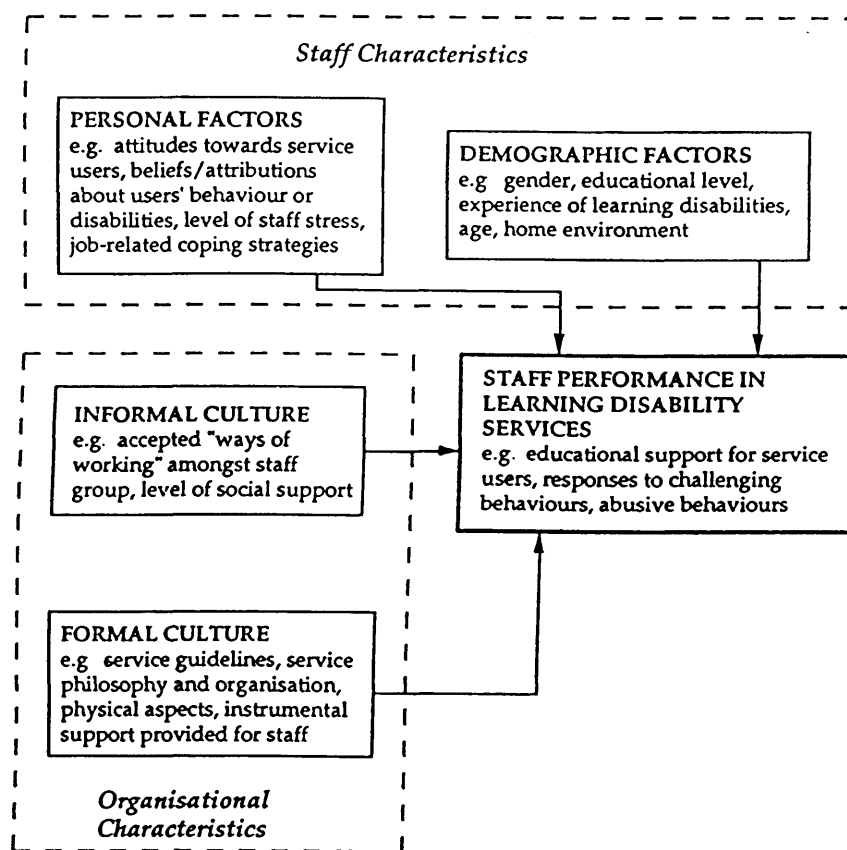
To summarise, there is an emerging literature to suggest that there may be an association between behavioural knowledge and emotional reaction to challenging behaviours, however the results are far from clear and require further investigation.

1.11 The Factors determining Staff Performance

In an attempt to integrate the research in staff stress and behavioural research traditions, Hastings, Remington & Hatton (1995), outlined a framework to integrate these different research traditions. The framework attempted to organise factors that directly or indirectly determine behaviour of care staff, and, in particular, their interactions with service users (Hastings, Remington and Hatton, 1995). They suggested that there are two main forms of influence on the performance of staff, the “characteristics of the organisation” in which the staff work, which include formal aspects of the staff organisational culture, for example service guidelines, service philosophy, support to staff and informal culture including accepted ways of working and levels of social support. The second main influence was identified as the “characteristics of the staff themselves”

including personal factors, such as attitudes towards the service users, levels of staff stress, and job-related coping strategies as well as demographic factors including gender, educational level, age, experience of learning disabilities. These factors were integrated into a model as illustrated in figure 1.

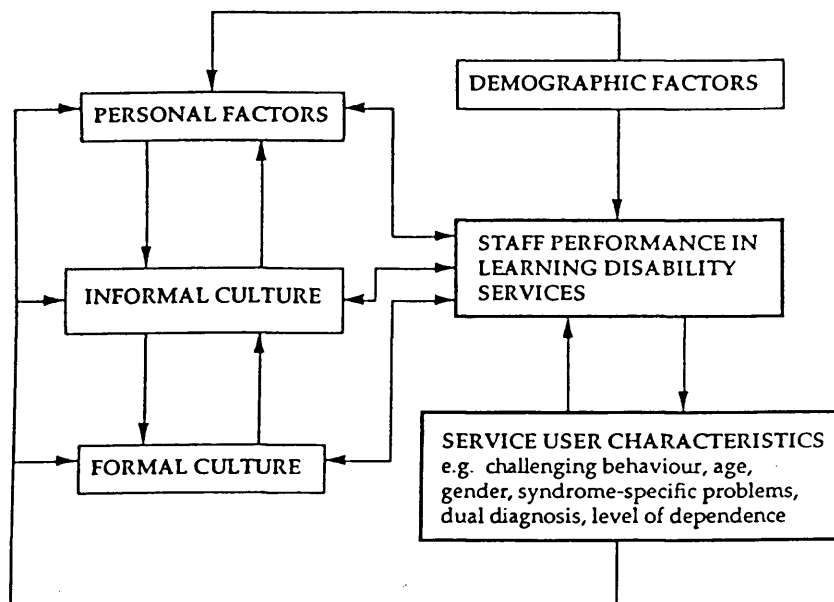
Figure 1. The Factors determining staff performance in services for people with learning disabilities (Hastings, Remington & Hatton, 1995).



However, they concluded that whilst this provided a categorisation of factors impacting on staff performance it did

not acknowledge the fact that the inter-relationship between the determinants of performance and the staff performance itself is not static, but rather a dynamic transactional relationship is occurring. The level of stress experienced by staff is not only affected by many different factors, but these factors are also subject to a wide variation and change. For example the individual's personal circumstances may change which in turn may affect their ability to cope with stress, staff may develop new strategies for coping with stresses as a result of training courses or information, service structures and philosophies may change over time. Therefore, they incorporated the dynamic relationship between service user and staff behaviour into this model to create a dynamic model for understanding staff performance. This takes into consideration the organisational characteristics, the staff characteristics and also the service user characteristics, see figure 2. Hastings, Remington & Hatton (1995), suggested that this dynamic framework would enable a greater understanding of staff performance in learning disabilities services and also influence the understanding and approaches to staff training, and behavioural management practices.

Figure 2. A Dynamic Framework for the study of Staff Performance
(Hastings, Remington & Hatton, 1995).



An increased awareness of the dynamic relationship between different components within the model could potentially increase service providers' understanding. For example, to improve the way in which staff respond to episodes of challenging behaviours, simply by increasing staff knowledge of challenging behaviours, developing policies or implementing training around ideologies will be unlikely to have a permanent positive effect without consideration of other significant factors including the prevailing informal culture and existing coping mechanisms of the individual staff.

1.12 Summary of Main Findings to date

To summarise, there is clearly an association between working in services for people with challenging behaviours and stress, however the strength and nature of this association is difficult to ascertain. A number of studies have design and methodological problems, which make it difficult to exclude alternative explanations for the association between challenging behaviour and staff stress.

An emerging body of research is developing which suggests that the way in which staff cope with challenging behaviours has an associated impact on their psychological well-being in terms of the level of stress that they experience. The research has tended to focus on the actual coping processes (i.e. emotion-focussed coping strategies or problem-focussed coping strategies) used by staff to deal with the demands of working with people with challenging behaviours. The use of emotion-focussed coping strategies has been deemed to be 'maladaptive' and seems to be associated with a greater risk of psychological problems, in terms of higher levels of staff stress or burnout, in response to challenging behaviours. However, this research body is limited and has some methodological shortcomings e.g., lacking a direct measure of the staff exposure to staff stressors

No research studies have been published considering the potential relationship between personality, cognitive appraisal and coping and stress in residential care staff in learning disability services. However given the range of studies carried out in other potentially stressful occupational settings and the relevance of their findings, it is suggested that the investigation of the potential association between personality, stress and coping is relevant to this work situation.

Whilst there are, to date, no published studies exploring the potential link between the negative emotions of staff and their behaviour, research has demonstrated that staff emotional reactions to challenging behaviours are related to staff stress therefore further investigations of emotional reactions are of significance to the provision of high quality services.

There is an emerging literature to suggest that there may be an association between behavioural knowledge and emotional reaction to challenging behaviours, however the results are far from clear and require further investigation.

Further research in community services for adults with learning disabilities and challenging behaviours is necessary to investigate the potential associations between exposure to potentially stressful events, coping strategies employed and outcome in terms of emotional response and stress based on a

theoretical psychological model using a clear definition and measures of stress with a homogenous group of participants.

Key areas identified from existing research requiring further investigation include:

Further exploration of the relationship between exposure to challenging behaviours, staff stress and coping strategies employed by staff working in community services for adults with challenging behaviours.

Examination of the potential association between exposure to external stressors and self-reported of stress.

Identification of the factors which might predict staff emotional reactions to challenging behaviours.

Investigation of the potential association between personality, coping strategies employed and stress.

Further exploration of the potential association between behavioural knowledge, emotional reaction to challenging behaviour and stress.

Future research concerning the ways in which the staff member's understanding of challenging behaviour, causal attributions made and their intervention behaviour is related to stress.

1.13 Overview of this Research Study

This study has taken as its starting point the dynamic framework suggested by Hastings, Remington & Hatton (1995), to describe the relationship between organisational factors, staff performance and service user characteristics. A model has been developed to take into consideration additional factors, which may be significant in understanding the nature of the staff performance and outcomes in terms of staff stress. In keeping with previous research studies, the relationship between potential stressors on direct care staff, coping strategies employed by direct care staff and perceived work stress and emotional distress has been explored. However, in addition consideration has been given to additional factors not included in previous studies. One of the measures will be of the personality of the staff member; in particular consideration is given to personality on the extraversion/introversion and neuroticism dimensions. Staff knowledge of behavioural principles will be assessed. The emotional response of the staff member is examined at the time of incident by completion of a self report measure of staff's emotional reactions to aggressive challenging behaviour, with completion of the measure occurring after the staff member had been involved in an aggressive challenging episode. A measure of stress is used that addresses psychological distress providing an overall measure of psychological distress as well as sub-scale measures of

somatic symptoms, anxiety/insomnia, social dysfunction and severe depression.

Of particular interest in this study are further analysis of those parts of the model proposed by Hastings, Remington & Hatton (1995) that are concerned with the 'personal factors' and their relationship to the outcome of psychological distress. This model allows a number of comparisons of the inter-relationship between demographic characteristics, personality type, knowledge, sources of stress, coping style, emotional reaction and their relative status as predictors of psychological distress.

A number of potential stressors either 'Work related' or 'Client related' may be identified and the impact of these stressors on the person will vary from person to person. The staff member's behavioural response to any challenging episode will also be potentially be influenced by a number of factors including demographic characteristics (age, gender, personality type (extraversion/introversion, neuroticism)) and the staff member's awareness and ability to respond in an effective way to the challenge presented by the resident, see figure 3.

Figure 3. A Psychological Model of Direct Care Staff Stress

EXTERNAL STRESSORS

Work/client related



CHALLENGING BEHAVIOUR EPISODE



PERSONAL FACTORS

personality type

knowledge of behavioural principles

age, gender, years of experience



COPING STRATEGY

Practical coping

Wishful Thinking



EMOTIONAL REACTION



PSYCHOLOGICAL DISTRESS

An event (external stressor) occurs in which a resident with learning disabilities exhibits an aggressive challenging behaviour. The staff member cognitively appraises the situation and will then adopt their individual coping style to cope with the stressful situation presented. This is influenced by and in turn will influence the relative impact of the stressors (Work related and Client related) acting on the staff member.

The staff member will respond and may experience an emotional reaction to the event. The outcome of this process is a potential influence on the psychological well being of the staff member with the potential for the subjective feelings of psychological distress as a consequence of experiencing such events.

The relationship between the different variables can be investigated and a number of predictions made including:

A greater perceived level of external stressor will be associated with higher levels of psychological distress.

Neuroticism will be associated with a negative emotional reaction to challenging behaviours and with greater levels of psychological distress.

Extraversion will be a predictor of practical coping.

Practical Coping will be a predictor of lower levels of psychological distress.

Wishful thinking coping strategies will be a predictor of greater levels of psychological distress.

Higher levels of knowledge of behavioural principles will be inversely associated with negative emotional reactions to challenging behaviours.

The use of wishful thinking coping will be associated with negative emotional reactions to challenging behaviours.

Negative emotional reactions will be a predictor of higher levels of psychological distress.

Based on the proposed psychological model of staff stress, the correlation between emotional reaction to challenging behaviours and psychological distress should be greater than that between coping style and psychological distress. The correlation between emotional reaction and psychological distress should be greater than that between personality and psychological distress. The correlation between personality and psychological distress should be greater than that between external stressor and psychological distress.

2. METHOD

2.1 Participants

Participants for this study were sixty nine direct care residential staff working for an independent community-based organisation providing residential care services for adults with mild and severe learning disabilities and significant challenging behaviours. The organisation is a well-established service based in Surrey and Berkshire operating six residential care homes across the area. The organisation was specifically established to provide residential care services to adults with learning disabilities presenting with significant challenges and as such was seen as being a recognised specialist service in this area. The homes each offered a service to between seven and nine residents, all of whom had significant challenging behaviours and in addition had other complex needs including mental health needs, sensory disabilities and physical disabilities.

Residents were placed within the organisation from across the United Kingdom and were typically placed within the organisation due to the fact no other service within the resident's local area could manage the challenging behaviours presented. Based on data collected by the homes all direct care staff are

exposed to incidents of challenging behaviour on a regular basis. Reports indicated that there would be a significant challenging behavioural incident of physical aggression directed towards others, self or property, requiring completion of a behaviour recording chart, on shift on a daily basis in each of the homes. Adaptive Behaviour Scale (ABS-RC: 2; Nihara, Leland & Lambert, 1993) assessments had been completed on 60% of residents (believed to be representative of the overall group of residents) and results indicate that they were a severely challenging group of residents. All residents scored below the fiftieth percentile point of the ABS on the majority of the Part One Domain scores (the criteria set by Felce, Lowe, Perry, Baxter, Jones, Hallam & Beecham (1998) for inclusion into the category of severe learning disability). The profile for the Part Two Domain scores indicated significant levels of behavioural challenges (see table 1)

Table 1. Adaptive Behaviour Scales (ABS) Part Two mean scores

Sub-scale	Mean	Range	Std. Dev.
Social Behaviour	7.8	4 – 12	2.66
Conformity	7.8	5 – 10	1.49
Trustworthiness	7.6	5 – 11	1.88
Stereotyped/Hyperactive Behaviour	6.5	4 – 11	2.27
Sexual Behaviour	8.8	3 – 12	2.46
Self Abusive Behaviour	6.9	3 – 12	1.74
Social Engagement	8.3	4 – 12	2.89
Disturbing Interpersonal Behaviour	8.5	4 – 12	2.22

Each residential home had an Assistant Psychologist, supervised by a Chartered Clinical Psychologist, working to provide intensive psychological support to residents and guidance to staff on behavioural management procedures. The overall psychological approach used within the organisation was based on a constructional approach to the management of challenging behaviours (Zarkowska & Clements, 1994, 1998). All staff were trained in the management of challenging behaviours using a behavioural approach, detailed monitoring of challenging episodes was carried out on a daily basis and each resident had a individual set of detailed behavioural management procedures to guide staff in their responses to the resident's challenging episodes.

The profile of staff employed within the organisation was typical of that found in community residential services (see Hatton, Brown, Caine & Emerson, 1995), being largely made up of unqualified staff, trained within the position. At the time of the study the organisation employed approximately one hundred and ten direct care staff and the opportunity to participate in the study was voluntary. The only condition for inclusion was that the member of staff spent the majority of their work-time involved in direct care provision to the residents. All staff were sent a copy of the research questionnaire and seventy five

questionnaires were returned of which sixty nine were correctly completed without missing values and used in the analysis.

2.2 Measures

The measures used in the direct care staff self-report questionnaire were based on measures used in previous studies of stress and coping with direct care staff in learning disabilities services (Bersani & Heifetz, 1985; Hatton & Emerson, 1993; Hatton, Brown, Caine & Emerson, 1995), with additional measures to investigate variables not included in previous studies. Measures included in the questionnaire were as follows, (see Appendix 8).

2.2.1 Demographic Characteristics of Participants

These included details regarding age, gender, ethnicity, partnership status, educational achievement, relevant training courses attended, length of time working in the house, and length of time working in the care professions.

2.2.2 Sources of Stress Questionnaires

Self-report questionnaires were used measuring two of sources of stress (as developed by Hatton, Brown, Caine & Emerson, 1995) based on items taken from the work carried out by

Bersani & Heifetz (1985), along with items developed on the basis of work by Cooper & Marshall (1976). Bersani & Heifetz (1985) report good test-retest reliability for their measures, work-related sources of stress, 0.73; client-related sources of stress, 0.74. The questionnaire is made up of two sections considering work-related sources of stress and client-related sources of stress separately.

The work-related sources of stress questionnaire is a twenty-four item 4 point Likert scale questionnaire concerning possible work related sources of stress including a set of statements which the individual rated according to the degree to which statement applied to them, including “too much work to do”, “size of service”, “poor physical working conditions”, “having too much responsibility”, “ease of travel to work”, “the organisation's rules and regulations” and “concerns for personal safety, e.g. physical danger”.

The client-related sources of stress questionnaire is a twelve item 4 point Likert scale questionnaire concerning possible client related sources of stress. Respondents rated the extent to which a number of client-related stresses apply to them including “violent behaviour (to self, others or property)”, “reckless carelessness”, “poor communication skills”, “unpleasant habits, e.g. loudness, night wandering”.

Scores for items within each scale were summed to provide an overall score of “Work-related sources of stress” (range, 24 to 96) and “Client-related sources of stress” (range 12 to 48). Additionally using mean rankings for each stressor item, potential stressors may be ranked in order of stressfulness for staff members.

2.2.3 Shortened Ways of Coping (Revised) Questionnaire

This is a fourteen item questionnaire concerning possible coping strategies used by staff to deal with work related problems. Each item describes a particular coping strategy rated by respondents on a 4 point Likert scale. The scale is divided into two subscales, “Practical Coping” and “Wishful Thinking”. It was developed by Hatton & Emerson (1985) from the original Ways of Coping Questionnaire (Folkman & Lazarus, 1985). Hatton & Emerson (1985) report good reliability and validity for the scales. Over a sixteen month period, paired sample t-tests demonstrated that scores had not changed significantly over the period (Practical coping, $t = 0.89$, $df = 29$, $p > 0.1$; Wishful thinking, $t = 1.08$, $df = 29$, $p > 0.1$). Test-retest alpha reliability using a strictly parallel goodness of fit model (over the sixteen month period) was found to be, Practical Coping, $\alpha = 0.88$; Wishful Thinking, $\alpha = 0.81$.

Examples of items include “I day dream”, “I imagine a better time or place than the one I am in” (Wishful Thinking). “I draw on my past experiences” (Practical Coping). All items are rated on a four point Likert scale (1= Not Used; 2 = Used Somewhat; 3 = Used Quite a Bit; 4 = Used a Great Deal). Scores for each sub-scale were summed to produce a sub-scale score for each coping strategy with total scores ranging from minimum = 7 to maximum = 28.

2.2.4 Personality Questionnaire

The revised Eysenck personality questionnaire (EPQ-R) short scale (Eysenck, 1977) was used. Although other measures of personality have been developed the EPQ-R was selected not only for its good reliability, (test-retest reliability: Extraversion, 0.88 for males, 0.84 for females; Neuroticism, 0.84 for males, 0.80 for females (Eysenck, 1977)), but also because it has been used in other studies exploring the relationship between personality type and stress (e.g. Bolger & Zuckerman, 1995; Bishop, 1999). The EPQ-R is a 48 item scale attempting to measure three major dimensions of personality: “Neuroticism”, “Psychoticism” and “Extraversion/Introversion”. Whilst, for objective and standardised assessment administration purposes, the whole questionnaire was used, only the items investigating Extraversion/Introversion and Neuroticism were of interest in this present study.

Overall Extraversion and Neuroticism score were obtained, ranging from 0 to 12, with a high score indicating a more 'Extrovert' or 'Neurotic' personality type.

2.2.5 Perceived Work Stress Measure

This single item 7 point Likert scale measure was used to assess work related stress. Respondents were asked to answer the question "To what extent do you think you have been under stress as a result of your work?", possible responses range from "not at all" to "extremely". No reliability or validity information is available for this measure, however this measure has been used in previous research and a significant positive correlation ($n = 68$, $r = 0.44$, $p < 0.01$) has been reported (Hatton, Brown, Caine and Emerson, 1995) between this measure of Perceived Work Stress and the score on the Malaise Inventory (Allen, Pahl & Quine, 1990).

2.2.6 General Health Questionnaire

The General Health Questionnaire GHQ 28 (Goldberg & Hillier, 1979) was used as a measure of psychological distress. The GHQ 28 is a widely used research tool which is not designed to be a screening questionnaire and does not make a clinical diagnosis but is a pure state measure requiring that the

respondents make a subjective description as to how much their present state is unlike their usual state, detecting disorders of less than two weeks duration. The GHQ 28 was selected as a measure of stress not only because it has been used in previous studies (e.g. Shepherd, Muijen, Dean & Cooney, 1996) but also because it has been used in both the workplace and with the wider community allowing direct comparisons of the present findings with previous research. It is among the best validated instruments of its kind where a score sufficient to represent a probable “case” (established by the score exceeding a threshold level) is of established psychiatric significance and indicates clear psychological distress (Werneke, Goldberg, Yalcin & Ustun, 2000). Good internal reliability (Cronbach’s alpha = 0.82 to 0.93) and test-retest reliability (0.85 to 0.90) has been reported (Goldberg & Williams, 1988). There are four sub-scales within the GHQ 28, “somatic symptoms”, “anxiety/insomnia”, “social dysfunction” and “severe depression”.

There are two methods of scoring the GHQ 28, it can be treated as a multiple response scale or ‘Likert scale’ and have weights assigned to each position, i.e. “Less than usual” assigned the weight “0”, “No more than usual” assigned the weight “1”, “Rather more than usual” assigned the weight “2” and “Much more than usual” assigned the weight “3”. This allows calculation of an overall GHQ score, (scores ranging from minimum = 0 to maximum = 84). Additionally a sub-scale score

can be calculated for each of the sub-scales to allow more detailed analysis of responses (sub-scales scores ranging from minimum = 0 to maximum = 21).

The GHQ 28 may also be treated as a bimodal response scale so that only significant (pathological) deviations from the normative indicate presence of the symptom. This is referred to as "GHQ scoring". Using this method, "Less than usual" scores 0, "No more than usual" scores 0, "Rather more than usual" scores 1, "Much more than usual scores" 1. An overall GHQ score is totalled which may then be compared to a threshold score to estimate prevalence of psychological disorder. This method of scoring has the advantage of eliminating any errors due to 'end users' or 'middle users' . The main disadvantage is that there is a potential cost of losing information. A range of threshold scores (for possible presence of psychiatric disorder) are reported ranging from GHQ score of 4/5, to GHQ score of 11/12.

For the purposes of this study, a "GHQ score" was calculated to obtain a measure of the numbers of staff who present with levels of psychological disorder that indicate a possible need for professional help. A threshold score of 5 was used corresponding to previous studies carried out with similar populations (Shepherd, Muijen, Dean & Cooney, 1996). Additionally the Likert method of scoring was used to produce

an overall score and to produce sub-scale scores to allow more in depth statistical comparisons to be made.

2.2.7 Knowledge of Behavioural Principles

The knowledge of behavioural principles as applied to children (KBPAC) was devised by Odell, Tarler, Benlolo and Flynn, (1979) as a 50 item multiple choice test designed to assess understanding of the application of basic behavioural principles with children. The authors reported satisfactory content validity for basic principles and good internal consistency, Kuder-Richardson reliability coefficient was reported as 0.94 and the odd-even split-half correlation was 0.93. The questionnaire presents problem situations, to which the respondent has to select the response that has the greatest probability of producing the desired effect. Issues included in the questionnaire include basic behavioural assumptions about behavioural change, principles of reinforcement and punishment and extinction. As the original instrument takes 30 – 60 minutes to complete, in accordance with previous research (Bennett, 1996), a shortened form was used, comprising the 14 items which were thought to be the most relevant to direct care staff working with an adult learning disability population. Item wording was adapted to reflect the context of working with adults. No reliability or validity information is available for this form.

Test items include questions such as "if a person gradually receives rewards less and less often for a behaviour what is most likely to happen?"

A - he will soon stop the behaviour,

B - he will be more likely to behave in that way for a long time,

C - he will not trust the person giving the rewards,

D - none of the above.

An overall score of behavioural knowledge is obtained, minimum score = 0, maximum score = 14.

2.2.8 Staff Emotional Reactions to Challenging Behaviours

The self-report measure of care staff emotional reactions to aggressive challenging behaviours (Mitchell & Hastings, 1998) was used to obtain a measure of the staff's emotional reaction following an incident in which a resident had been aggressive. The scale is reported to have high internal consistency (Cronbach's alpha, depression/anger, 0.83; fear/anxiety, 0.85) and good test-retest reliability (intra-class correlation coefficients were depression/anger, $r = 0.74$; fear/anxiety, $r = 0.81$) with excellent face validity. The correlation between the two sub-scale scores was 0.47 indicating that the sub-scales did measure different dimensions of negative emotional reactions, with a moderate degree of overlap between the dimensions (Mitchell & Hastings, 1998).

The measure is a 15 item self-report rating scale. The respondent considers their emotional reaction to items including “Shocked”, “Afraid”, “Sad”, “Nervous”, “Frustrated” and rates them on a four point scale, “No, Never”, “Yes, but infrequently”, “Yes, frequently”, “yes, very frequently”. They are scored on a zero to three scale and total scores produce two sub-scale scores representing different dimensions of negative emotional reactions, “Depression/Anger”, (minimum scale score = 0, maximum scale score = 30) and “Fear/Anxiety”, (minimum scale score = 0, maximum scale score = 15).

In this study, the staff member was requested to complete the rating scale after they had been involved in a challenging incident in which a service user had displayed physically aggressive behaviour, to obtain a measure reflecting their emotional reaction based on a ‘real event’

2.3 Procedure

Ethical approval for the study was obtained from the Organisation's Ethics Committee (see Appendix 1). A meeting was held with the home manager of each of the residential care homes where the rationale for the research study was discussed and an information sheet provided to be given to each of the staff members. (See Appendix 2).

Due to a variety of factors including the requirement that responses were collected anonymously, the structural composition of the service and time constraints, a sufficient number of questionnaire packs were left in each residential home to be completed by direct care staff (excluding night staff and manager/deputy managers) together with a stamped addressed envelope for them to complete the questionnaire and return it confidentially to the researcher. Detailed written instructions were supplied as to how to complete the questionnaires. Staff were requested to complete the questionnaire within a two week period and to include a copy of the Emotional Reaction to challenging behaviours measure following a challenging episode that took place within this time period. It was possible that questionnaires may have been completed 'on-shift' in the house, or 'off-shift' whilst the staff member was at home.

On receipt of the completed questionnaire, a code number was assigned for administrative purposes, however there was no way of identifying names of individual staff who had completed the form.

The questionnaires were completed over a three month period across the different houses and at the end of the three month period a debriefing statement was sent to each house to be

made available to all staff whether they had participated in the study or not. All staff members were ensured of their confidentiality and it was emphasised that their participation was entirely voluntary.

3 RESULTS

Three kinds of analysis were used in this study. Firstly, the characteristics of the direct care staff were profiled. Secondly, relationships between the key variables were investigated, using Pearson's correlations, to investigate associations predicted by the research model. Finally, stepwise multiple regressions were used to investigate, in greater detail, which factors were mostly strongly associated with psychological distress as measured by the GHQ.

3.1 Characteristics of Direct Care Staff

A total of 110 questionnaires were sent out to direct care staff. A total of 74 questionnaires were completed representing a response rate of 67%; however, 5 of these were not completed correctly and therefore the study was based on 69 fully completed questionnaires representing a response rate of 63%. This response rate appears to be comparable with other questionnaire studies of staff stress, (e.g. Rose, 1999, 76%).

Table 2. Staff Characteristics

<i>Characteristic</i>		
Gender	Male 39% (N=27)	Female 61% (N=42)
Ethnicity Minority	Yes 13% (N=9)	No 87% (N=60)
Partner status	Alone 35% (N=24)	Partner 65% (N=45)
Age (yrs)	Mean 29.54	Std. Dev. 8.82
Time in home (yrs)	Mean 1.94	Std. Dev. 1.82
Time in care (yrs)	Mean 5.16	Std. Dev. 5.72

Demographic information is presented in Table 2 with detailed information provided in Appendix 3. As Table 2 shows 61% of the staff completing questionnaires were female and 39% were male. The majority of staff were aged under 34 (73% of the staff) with the mean age being 29 years 6 months (range 20 years to 54 years, standard deviation 8.82). The majority of staff had worked in their current care home for less than three years (84%) with 78% of the staff having worked in the care profession for under six years. The mean length of time working in their home was 1 year 11 months (range 1 month to 9 years 6 months, standard deviation 1.81). The mean length of time working in the care profession was 5 years 2 months (range 1 month to 30 years, standard deviation 5.72). This staff demographic profile appears to be comparable to the characteristics of direct care staff reported in other studies (e.g., Hatton, Brown, Caine & Emerson, 1995).

Self-reported levels of time off for illness indicated that 81% of the staff had up to nine days off within the previous year for illness. The mean number of days off for illness was 6.57 days (range 0 to 90 days, standard deviation 11.84). The mean number of days off sick attributed to stress related illness was 1.65 days (range 0 to 7 days, standard deviation 2.29). A total of 37% of the staff attributed between one and six days off as a direct result of stress related problems.

Information provided by the organisation indicated an annual turnover rate of staff, in the region of 15 - 20% which is comparable to those figures found in other studies (Felce, Lowe & Beswick, 1993).

Results from the Eysenck Personality Questionnaire (EPQ) were as follows:

EPQ – Extraversion, Mean 6.97, Std Deviation 2.66.

EPQ – Neuroticism, Mean 5.65, Std Deviation 3.80.

There are no similar studies with this population to make comparisons of this profile however Eysenck & Eysenck (1975) report a Mean EPQ Extraversion score of 7.42 (SD 3.44) for males and 7.68 (SD 3.02) for females aged 21 – 30 years old and Mean EPQ Neuroticism score of 5.17 (SD 3.35) for males and 5.93 (SD 2.89) for females aged 21 – 30 years old. This suggests that the care staff in the present study were less

extrovert but of similar levels of Neuroticism as compared with the sample population used in the development of the measure.

Results from the Shortened Ways of Coping (Revised) Questionnaire (SWC-R) were as follows:

SWC-R Wishful Thinking, Mean 15.77, Std Deviation 4.96.

SWC-R Practical Coping, Mean 23.03, Std Deviation 3.17.

Previous studies using the SWC-R (e.g. Hatton & Emerson, 1995) do not report information on scale scores to allow any comparisons across populations studied.

Results from the Emotional Reactions to aggressive challenging behaviours were as follows:

Emotional Reactions – depression/anger, Mean 5.00, Std Deviation 3.81.

Emotional Reactions – fear/anxiety, Mean 3.87, Std Deviation 3.54.

These results compare to those reported by Mitchell & Hastings (1998), who found the following results, depression/anger, Mean 6.87, Std Deviation 4.79 and fear/anxiety, Mean 3.33, Std Deviation 2.54.

3.2 Stress levels and Sources of stress

Using the sources of stress questionnaire the mean ratings for each stressful item were scored. Adopting the approach used by Hatton, Brown, Caine & Emerson (1995) potential stressors were then ranked in order of stressfulness for staff, considering the work-related stress levels separately from the client-related stress levels. The five items rated as most stressful by staff are presented in Table 3. The work related item related as most stressful by staff was 'low salary' followed in descending order by 'conflict of work with family or personal demands', 'concerns for personal safety (e.g. physical danger)', 'the personal emotional impact of the work' and 'filling in forms'.

The client related items rated as most stressful by staff were 'violent behaviour (to self, others or property)', followed in descending order by 'unpleasant habits (e.g. loudness, night wandering, anti social behaviours)', 'an unwillingness to function up to ability', 'a low level of self care (e.g. poor hygiene, toileting)' and 'a lack of basic social skills'.

Taken overall the item rated as most highly stressful to staff was the client-related stress item - 'violent behaviour (to self, others or property)'.

Table 3. Top Five Stressors reported by Care Staff

<i>Work-Related Stressors</i>	
Stressor	Mean Rating
Low Salary	2.80
Conflict of work with personal demands	2.63
Concerns for personal safety	2.52
The personal emotional impact of the work	2.28
Filling in forms	2.26

<i>Client-related stressors</i>	
Stressor	Mean Rating
Violent behaviour	3.23
Unpleasant habits	2.55
An unwillingness to function up to ability	2.42
A low level of self-care	1.94
A basic lack of social skills	1.57

An overall total score for Work-related and Client-related stress was calculated by totalling all sub-scale scores for each of the measures. The mean total score for Work-related sources of stress was 50.17 (range 29 to 71, standard deviation 12.69). The mean total score for Client-related sources of stress was 26.38, (range 15 to 44, standard deviation 7.84).

The level of perceived work stress as measured by the question "To what extent do you think you have been under stress as a result of your work?" on a 7 point Likert scale indicated a mean value of 4.14 (mean 4.14, range 2 - 7; standard deviation 1.52).

The levels of psychological distress were measured using the General Health Questionnaire (GHQ 28). The GHQ scoring method was used to identify psychological distress. Using a cut off score of 5, as the threshold for someone whose level of psychological distress (Shepherd, Muijen, Dean & Cooney, 1996) may indicate a possible need for professional help, 45% of the staff scored higher than this threshold, indicating a substantial level of psychological stress within this work group. The overall mean score was 6.1 (range 0 to 23, standard deviation of 6.57).

Using the Likert scoring method with the GHQ 28 an overall score can be obtained together with scale scores 'somatic symptoms', 'anxiety and insomnia', 'social dysfunction' and 'severe depression'. Using this method of scoring the highest scores were obtained on the somatic scale (mean 7.96, range 0 to 16, standard deviation 4.56). High scores were also identified in the social dysfunction scale (mean 7.7 range 0 to 21, standard deviation 3.75) with lower scores on the anxiety and

insomnia scale (mean 6.52, range 0 to 18, standard deviation 5.38). Scores on the severe depression scale were substantially lower (mean 1.68, range 0 to 9, standard deviation 2.67).

3.3 Knowledge of Behavioural Principles

Using the Knowledge of Behavioural Principles as Applied to Children (KBPAC) shortened version it was found that out of a possible maximum score of 14 the mean score was 6.23 (range 2 to 11, standard deviation 2.04). This is very similar to the findings of Bennett (1996), using the shortened version of the KBPAC with a similar direct care staff population, who reported mean scores for direct care workers to be 6.39 (standard deviation 1.92).

3.4 Relationships between Personality, Coping Strategies, Knowledge, Emotional Reactions and Staff Stress – Correlations.

In order to investigate the relationships between the sources of stress, coping strategies, personality, knowledge, emotional reactions to challenging behaviour and staff stress Pearson's Correlations were carried out. In order to ensure suitability of data for parametric statistical analysis, a series of one-sample

Kolmogorov-Smirnov tests was conducted on EPQ – Neuroticism and Extraversion, Ways of Coping, Emotional Reactions, Behavioural Knowledge and Stressors. The distribution of all of these scores were found to approximate a normal distribution (see appendix 4).

Pearson's correlations were subsequently carried out (see appendix 5). Before reviewing the results, two key considerations need to be clarified as follows:

Due to the number of variables considered, the level of significance was set at $p < 0.001$. Using the Bonferroni correction procedure for multiple comparisons, to ensure that the overall chance of making a Type I error is still less than 0.05, the level of significance 'p' is divided by the total possible number of pairwise comparisons 'n' to produce a corrected level of significance (Wright, 1992). In this set of correlations there are 45 pairwise comparisons, therefore $p = 0.05/45 = 0.0011$.

Due to the fact that directional hypotheses were being tested, one-tailed tests were used. All hypotheses were derived from the proposed 'Psychological Model of direct care Staff Stress' from which predictions were made in a specific direction, e.g., 'A greater level of external stress will be associated with higher levels of psychological distress'. Therefore with directional

hypotheses, it is generally accepted that one-tailed tests should be used (Breakwell, Hammond & Fife-Shaw, 1995).

Hypothesis 1: A greater perceived level of external stressor will be associated with higher levels of psychological distress.

It was found that psychological distress as measured by the GHQ was strongly correlated with Work-related stressor score ($n = 69$, $r = 0.355$, $p < 0.001$) but not with Client-related stressor score ($n = 69$, $r = 0.288$, not significant). This finding suggests that there is a strong association between perceived level of work-related stressors and level of psychological distress. Higher levels of work-related stressors were associated with greater psychological distress.

Hypothesis 2: Neuroticism will be associated with negative emotional reactions to challenging behaviours.

Neuroticism was found to be strongly correlated with both negative emotional reaction – depression/anger ($n = 69$, $r = 0.597$, $p < 0.001$) and emotional reactions - fear/anxiety ($n = 69$, $r = 0.652$, $p < 0.001$). This finding suggests that there is a strong association between Neuroticism and staff member's negative emotional reaction to challenging behaviour.

Furthermore, it was also found that high Neuroticism was also strongly associated with greater levels of psychological distress, as measured by the GHQ ($n = 69$, $r = 0.714$, $p < 0.001$).

Hypothesis 3: Extraversion will be a predictor of practical coping.

No association was found between Extraversion and Ways of coping – Practical Coping ($n = 69$, $r = 0.298$, not significant).

Hypothesis 4: Practical coping will be a predictor of lower levels of staff distress.

No association was found between practical coping and psychological distress as measured by the GHQ ($n = 69$, $r = -0.22$, not significant).

Hypothesis 5: Wishful thinking coping strategies will be a predictor of greater distress.

Wishful thinking was found to be strongly correlated with psychological distress as measured by the GHQ ($n = 69$, $r = 0.743$, $p < 0.001$). This suggests that there is a strong association between wishful thinking as a coping strategy and greater levels of psychological distress.

It was also found that there was a strong association between work-related stressor score and wishful thinking ($n = 69$, $r = 0.517$, $p < 0.001$).

Hypothesis 6: Higher levels of knowledge of behavioural principles will be inversely associated with negative emotional reactions to challenging behaviours.

No association was found between knowledge of behavioural principles and emotional reactions to challenging behaviours (depression/anger, $n = 69$, $r = -0.072$, not significant; fear/anxiety, $n = 69$, $r = -0.244$, not significant).

Hypothesis 7: The use of Wishful thinking coping will be associated with negative emotional reactions.

The use of Wishful thinking coping strategies were found to be strongly correlated with negative emotional reactions to challenging behaviours (depression/anger, $n = 69$, $r = 0.620$, $p < 0.001$; fear/anxiety, $n = 69$, $r = 0.666$, $p < 0.001$).

Hypothesis 8: Negative emotional reactions will be a predictor of higher levels of psychological distress.

Negative emotional reactions were found to be strongly correlated with psychological distress (depression/anger, $n = 69$, $r = 0.679$, $p < 0.001$; fear/anxiety, $n = 69$, $r = 0.610$, $p < 0.001$).

These findings suggest that having a negative emotional

reaction to a challenging behaviour was associated with greater level of psychological distress.

Hypothesis 9: The correlation between emotional reaction to challenging behaviours and psychological distress should be greater than that between coping style and psychological distress. The correlation between emotional reaction and psychological distress should be greater than that between personality and psychological distress. The correlation between personality and psychological distress should be greater than that between external stressor and psychological distress.

The correlation coefficients between psychological distress and the different variables were as follows:

Emotional Reaction depression/anger $r = 0.679$

fear/anxiety $r = 0.610$

Wishful thinking $r = 0.743$

Neurotic personality $r = 0.714$

Work-related stressors $r = 0.355$.

This suggests that the correlation between psychological distress and Work-related stressors is weaker than that between Neuroticism and distress, which is weaker than that between Wishful thinking and distress. However the correlation between

Wishful thinking and distress is greater than that between emotional reactions and distress.

Using MedCalc Version 7.0.1.1 (Schoonjans, 1993) comparisons between the Pearson's correlation values were calculated (level of significance was set at $p < 0.05$)

Comparison	z-statistic	significance
Work-related stressor and Neuroticism	$Z = -3.0110$	$P = 0.0026$ signif.
Neuroticism and Wishful thinking	$Z = -0.3553$	$P = 0.7224$ not signif.
Wishful thinking and Emotional Reaction (depression/anger)	$Z = 0.7462$	$P = 0.4556$ not signif.
Wishful thinking and Emotional Reaction (fear/anxiety)	$Z = 1.4259$	$P = 0.1539$ not signif.

These findings suggest that the correlation between Neuroticism and psychological distress is significantly greater than the correlation between work-related stressors and psychological distress. However, no significant differences were found when comparing the correlation between Neuroticism and psychological distress with the correlation between Wishful

thinking and psychological distress. No significant differences were found when comparing the correlation between wishful thinking (depression/anger & fear/anxiety) and psychological distress with the correlation between emotional reaction and distress. These findings do in part support the proposed psychological model, insofar as the correlation between Neurotic personality and psychological distress is greater than that between work-related stressor and psychological distress, however the differences in correlation between the other variables and psychological distress were not found to be significant.

Regression analyses were used to further examine the relationship between these variables and psychological distress.

3.5 Relationships between Personality, Coping Strategies, Emotional Reactions and Staff Stress – Multiple Regressions

To investigate in more detail relationship between personality, sources of stress, coping styles, emotional reactions and staff stress (work stressor and psychological distress as measured by the GHQ 28) multiple regression analyses were carried out (see appendix 6). Variables correlating significantly with psychological distress ($p < 0.005$) were entered into a

hierarchical stepwise multiple regression (used to ensure that the smallest possible set of predictor variables are included in the model) with psychological distress (as measured by the GHQ) as the dependent variable and EPQ Neuroticism, Work-related stressors, Ways of Coping and Emotional Reactions to challenging behaviours as the independent variables.

A significant model ($p < 0.001$) emerged with two significant predictors. Ways of coping – wishful thinking, and Emotional reactions – depression/anger. (Collinearity statistics give Tolerance values of 0.616, which are acceptable measures of correlation between predictor variables.) Significant predictor variables in this model were as follows (see table 4).

Table 4. Multiple Regression with GHQ as dependent variable

Predictor Variable	Beta	t	p
Ways of coping - wishful thinking	0.524	5.486	< 0.001
Emotional reaction – depression/anger	0.354	3.710	< 0.001
(Adjusted R Square = 0.618; $F(2,68) = 56.097$; significance $p < 0.001$).			
Independent variables not in the final equation: EPQ – Neuroticism; Emotional reaction fear/anxiety; Work-related stressors			

When considering the adjusted R square values, it is seen that model 1, which included only Ways of Coping – Wishful Thinking accounted for 55% of the variance in GHQ score (Adjusted R

square = 0.546). The inclusion of Emotional Reaction – depression/anger into model 2 resulted in an additional 7% of the variance being explained (R square change = 0.077). The final model (model 2 – Ways of Coping – Wishful Thinking and Emotional Reaction – depression/anger) accounted for 62% of the variance in the GHQ score. Whilst this is a significant finding, it does suggest that there may be other significant factors that may be influencing psychological distress not included within this psychological model under investigation. Factors that may be significant could include self-efficacy (Hastings & Brown, 2002) and this will be discussed in section 4.9 ‘Future Directions for Research’.

The findings suggest that high levels of psychological distress were associated with high levels of wishful thinking and high ratings of negative emotional reaction (depression/anger) to challenging behaviour. The strongest predictor for psychological distress was found to be wishful thinking.

Given that there was a difference in the scores across the different sub scales of the GHQ, further stepwise multiple regression analyses were carried out using each of the sub-scales as a separate dependant variable to determine if there was any difference in the predictor variables (see appendix 7).

The results were as follows (see table 5):

Table 5. Multiple Regressions using GHQ Sub-scales as dependent variables

<i>Dependent Variable - Somatic</i>			
Predictor Variable	Beta	t	p
EPQ – Neuroticism	0.400	3.493	< 0.001
Emotions – depression/anger	0.344	3.007	< 0.001
(Adjusted R square = 0.426; F(1,68) = 26.227; p < 0.001)			
<i>Dependent Variable – Anxiety & Insomnia</i>			
Predictor Variable	Beta	t	p
Ways of coping - wishful thinking	0.746	9.178	< 0.001
(Adjusted R square = 0.550; F(1,68) = 84.242; p < 0.001).			
<i>Dependent Variable – Social Dysfunction</i>			
Predictor Variable	Beta	t	p
Ways of coping - wishful thinking	0.678	7.548	< 0.001
(Adjusted R square = 0.452; F(1,68) = 56.976; p < 0.001).			
<i>Dependent Variable – Severe Depression</i>			
Predictor Variable	Beta	t	p
EPQ – Neuroticism	0.458	4.224	< 0.001
Emotions depression/anger	0.331	3.055	< 0.001
(Adjusted R square = 0.485; F(1,68) = 33.059; p < 0.001).			

These findings suggest that Ways of coping – Wishful thinking is a significant predictor of high levels of psychological stress as measured by sub-scales of Anxiety and Insomnia and Social Dysfunction and that there is a joint effect, between a high Neuroticism score and a high level of Negative emotions – depression/anger, which is a significant predictor of psychological distress as measured by sub-scales of Somatic and Severe Depression.

It should be noted that Adjusted R square values for each of the Regressions range from 0.426 (Somatic) to 0.550 (Anxiety & Insomnia). This suggests that whilst there is a significant model to explain the variance in each of the GHQ sub-scale scores only approximately half of the variance is explained by the variables under consideration. Whilst this is a significant finding, it does suggest that there may be other significant factors that may be influencing the different sub-scale measures of psychological distress not included within this psychological model under investigation (see section 4.9 for further discussion).

3.6 Summary of Results

To summarise, it has been found that direct care staff working within this community-based service for adults with learning disabilities and challenging behaviours report significant levels of psychological distress. A highly significant association has been found between External stressors, Neurotic personality type, the use of wishful thinking coping strategies, a negative emotional reaction (depression/anger) to challenging behaviours and greater levels of psychological distress.

Evidence has been obtained to suggest some support for the proposed psychological model of staff stress. The findings suggest that Ways of coping – Wishful thinking is a highly significant predictor of high levels of psychological distress as measured by sub-scales of Anxiety and Insomnia and Social Dysfunction and that a joint effect between a high Neuroticism score and a high level of Negative emotional reaction – depression/anger, is a highly significant predictor of psychological distress as measured by sub-scales of Somatic and Severe Depression. This would suggest that there may be two different psychological processes occurring that influence different aspects of psychological distress. It is suggested that psychological distress has multiple components and may be multiply caused.

4 DISCUSSION

4.1 Main Findings from the Study

This study has identified a number of factors, that are associated with staff stress, that confirm and extend the findings of previous research, whilst also raising further questions concerning both the measurement of stress as well as the association with other factors, for example personality.

The study has found that direct care staff working within this community-based service for adults with learning disabilities and challenging behaviours report very high levels of psychological distress. The results indicated that 45% of the direct care staff reported symptoms that suggest evidence of potential psychological disorder that would warrant referral to psychiatric services. Overall, the item rated as most highly stressful to staff was the client-related stressor item - 'violent behaviour (to self, others or property)'. The work related item related as most stressful by staff was 'low salary' followed in descending order by 'conflict of work with family or personal demands', and 'concerns for personal safety'. The client related items rated as most stressful by staff were 'violent behaviour', followed in descending order by 'unpleasant habits (e.g. loudness, night wandering, anti-social behaviours)', 'an unwillingness to function

up to ability' and 'a low level of self care (e.g. poor hygiene, toileting)'.

The findings suggested that there was a strong association between perceived level of external stressor and level of psychological stress, both in terms of self-reported level of psychological distress as well as self-reported number of days off work for stress-related problems. Higher levels of external stressor, and in particular work-related stressors, were associated with greater psychological distress.

A significant association has been found between neurotic personality type, the use of wishful thinking coping strategies, a negative emotional reaction (depression/anger) to challenging behaviours and greater levels of psychological distress. Based on these findings, support has been given to the proposed psychological model for stress, however, whilst there may be an association between these different factors, the exact nature of this relationship is complex and requires further investigation.

A strong association has been found between Neuroticism and a staff member's negative emotional reaction to challenging behaviour and between Neuroticism and greater levels of distress.

The findings suggested that there was a strong association between wishful-thinking as a coping strategy and greater levels of psychological distress.

The use of a wishful-thinking coping strategy was found to be strongly correlated with negative emotional reactions to challenging behaviours.

The findings suggested that having a negative emotional reaction to a challenging behaviour was associated with greater level of psychological distress.

The correlation between wishful thinking and psychological distress was found to be the greatest. The findings suggested that the association between psychological distress and Work-related stressors was weaker than that between Neuroticism and distress, which was weaker than that between Wishful thinking and distress. However the correlation between Wishful thinking and distress was greater than that between negative emotional reactions and distress. This finding does in part support the proposed psychological model, however the association between negative emotional reaction and psychological distress was weaker than predicted.

The study failed to find an association between practical coping and staff distress.

No association was found between knowledge of behavioural principles and emotional reactions to challenging behaviours.

No association has been found between extrovert personality type and the use of practical-thinking coping strategies.

In order to investigate in more detail the relationships, regression analyses were carried out. A significant model was identified that suggested that the use of wishful thinking coping strategies was a highly significant predictor of high levels of psychological distress as indicated by sub-scales measuring Anxiety and Insomnia and Social Dysfunction and that a joint effect between a high Neuroticism score and a high level of Negative emotional reaction – depression/anger was a highly significant predictor of psychological distress as measured by sub-scales of Somatic and Severe Depression. This would suggest that psychological distress has multiple components, represented by the different symptoms of distress experienced, and two different psychological processes appear to be taking place that influence the different components of psychological distress.

Before considering each of these findings in more detail it is important to recognise some of the limitations of the present study.

4.2 Limitations of this Study

There are a number of limitations to the study to be considered prior to discussing the theoretical and practical implications of these findings in more detail.

4.2.1 Participant Issues

There are a number of participant issues that must be considered regarding the generalisation of the results. Firstly, whilst the demographic characteristics appear to be typical of staff working in services and comparable to the characteristics of staff participating in other studies (e.g. Hatton, Emerson, Rivers, Mason, Mason, Swarbrick, Kiernan, Reeves & Alborz, 1999) the present study used a relatively small number of direct-care staff.

Secondly, the staff members were all working within one specialised organisation. This was an advantage in terms of identifying a relatively similar and homogenous population, however it does impose limitations and future studies would benefit from investigating differences across different agencies (e.g. NHS and local authority services, voluntary organisations and private sector).

Thirdly, whilst the study had a respectable response rate (62%), comparable to similar studies (e.g. Rose, 1999), the issue of sampling arises. There is a possibility that non-respondents differed significantly from respondents. All staff were given the opportunity to participate and were provided with a copy of the questionnaire, however it is possible that staff who were experiencing greater levels of distress chose to participate. Conversely, it is also possible that staff who were experiencing the greatest levels of distress found the expectation of completing a questionnaire an additional stressor and were simply 'too stressed' to participate and failed to complete a questionnaire.

4.2.2 Measures Used

There are a number of factors relating to the measures used, which are relevant to the interpretation of the results. Other studies have used a wide range of outcome measures, including general stress or distress (e.g. Hatton, Brown, Caine & Emerson, 1995); mental health, (e.g. Jenkins, Rose & Lovell, 1997); specific measures of burnout (e.g. Blumenthal, Lavender & Hewson, 1998); measures of work satisfaction (e.g. Dyer & Quine, 1998) and specific job strain (e.g. Power & Sharp, 1988). Consequently, a number of different measures of stress have been used in these other studies, including the Maslach Burnout

Inventory (MBI), Hospital Anxiety and Depression Scale (HAD) and The Thoughts and Feelings Index (TFI), as well as the General Health Questionnaire (GHQ). The present study was concerned with general psychological stress as an outcome measure and consequently used the GHQ, due to its widespread use as an outcome measure of stress and its good reliability and validity data. However, whilst the GHQ has been validated on a number of occupational groups, there are no normative data for staff working with people with learning disabilities, and it may be that the GHQ is capturing feelings of stress associated with general well-being, a consequence of non-work stressors, and not specific to the work situation. Alternative measures that could have been used that directly address work place stress include the six item measure of work stress – Job Strain as used by Borrill, Wall, West, Hardy, Shapiro, Carter, Golya & Haynes (1996), or the 16 item scale to measure Work Satisfaction as developed by Hackman & Oldman, (1975).

Whilst there may be debate as to the most appropriate model or theory of personality, there is relevance in using a model and personality assessments to describe and measure individual differences. The EPQ – R was used in this study as a measure of personality due to its widespread use, simplicity of administration and also because it has been used in other studies exploring the relationship between personality type and

stress (e.g. Bolger & Zuckerman, 1995; Bishop, 1999). However, with the re-emergence of interest in the Big Five taxonomy of personality, the use of a measure based on a five factor theory such as the NEO-PI (McCrae & Costa, 1985) may be appropriate to use in future research.

4.2.3 Procedural Issues

There are a number of procedural issues to consider. Whilst general data regarding the level of challenge posed by residents to staff was collected (i.e. ABS-RC:2 Part Two Domain scores) and it was evident that residents in all homes presented with severely challenging behaviours, it is possible that during the time of the data collection, there may have been differences across the homes in individual staff member's exposure to challenging behaviour. No measure of individual staff exposure to challenging behaviour was collected and due to the design of the study, ensuring the anonymity of participants, it was not possible to link individual responses to specific homes. Future research should consider the use of the Exposure to Challenging Behaviours Scale (Hastings & Brown, 2002) in which staff report their exposure to (witnessing, or being the target of) challenging behaviours during the preceding month to address this methodological problem.

There is a possibility that some of the staff responses were influenced by a social desirability response. The inclusion of the Marlowe-Crowne Social Desirability Scale (Strahan & Gerbasi, 1972) would have been beneficial to address this issue.

Finally, the study conducted a number of correlational analyses of associations between specific factors and outcomes, the potential limitations of correlational designs are well documented (e.g. Coolican, 1994; Minium, King & Bear, 1993) and emphasise the important consideration that correlation does not imply causation. In any correlation there may be a third variable which explains the apparent association between the two variables that were measured. In order to address this issue, the present study also used regression analyses to determine which factors were most strongly associated with the outcome measures. Regression analysis as a statistical technique also has a number of limitations and there will be difficulties in drawing inferences about the relative influences of different predictor (independent) variables if there is high correlation between these variables. In this study collinearity diagnostics reported a tolerance value (the measure of correlation between predictor variables) of 0.616, which is acceptable (Brace, Kemp & Snelgar, 2000).

Bearing in mind these potential limitations and qualifications, the main findings will be discussed in more detail.

4.3 Stress Levels reported by Care Staff

Results found that 45% of staff reported symptoms of distress that suggested evidence of potential psychological disorder, with the overall average score for the total sample falling above the cut off threshold. The overall findings are comparable to Shepherd, Muijen, Dean & Cooney (1996) investigating stress in community and institutional staff using the GHQ – 28, who found 40% of staff met the threshold for minor psychiatric disorder. This is higher than the findings from a large scale study carried out by Hatton, Emerson, Rivers Mason Swarbrick, Kiernan, Reeves & Alborz (1999), using the GHQ – 12. They found evidence of significant psychological distress in 32% of staff working in community-based services for people with learning disabilities across the UK. A study by Wall, Bolden, Borilla, Carter, Golya, Hardy, Haynes, Rick, Shapiro and West (1997) investigating stress in NHS trust staff, using the GHQ, reported that 26.8% of respondents showed evidence of stress, indicative of a minor psychiatric disorder. A comparative population from a large scale national survey – the British Household Panel Survey (BHPS; Taylor, Brice & Buck, 1995) based on GHQ data from five thousand employed adults from a representative sample of British households found 17.8% showing evidence of

stress indicative of a minor psychiatric disorder. It may be concluded that direct care staff working in residential services for people with challenging behaviours show substantially higher levels of psychological distress than the general population.

Analysis of the sub-scale scores (somatic symptoms, anxiety and insomnia, social dysfunction and severe depression), derived from the GHQ 28, indicated that there was a difference in scores, suggesting that the staff were experiencing different dimensions of the symptoms of distress. Highest scores were obtained on the somatic scale, with staff reporting a higher than usual experience of symptoms such as 'feeling ill', 'feeling run-down and out of sorts', 'feeling in need of a good tonic' and 'getting pains in the head'. This would suggest that staff experiencing these symptoms may not perform as well at work or take days off work 'feeling ill' and not necessarily associate this with 'feeling stressed'. High scores were also obtained on the social dysfunction scale, with staff reporting feeling they were 'doing things much less well than usual', 'playing a much less useful part in things', 'taking much longer than usual to do things' and 'much less capable of making decisions than usual'. This would suggest that the experience of social dysfunction symptoms of psychological distress would potentially have a direct impact on the work performance of staff.

Self-reported levels of time off for stress-related illness appeared to be relatively high; the mean number of days off was 1.65 days, with 37% of staff attributing between one and six days off for stress-related illness. Levels of time off for illness indicated that 81% of staff had up to nine days off for illness, with the mean number of days off, self-reported to be 6.57 days. It should be noted that none of the comparable research studies (e.g. Hatton, Emerson, Rivers, Mason, Mason, Swarbrick, Kiernan, Reeves & Alborz, 1999) reported days off for illness statistics and this is an area warranting further investigation.

Overall it may be concluded that the staff in this present study were clearly showing significantly high levels of psychological distress. The association between stress and the other variables will be considered separately.

4.4 The Impact of External stressors

The study found that there was a strong association between external stressors and greater levels of stress, confirming and extending the findings of previous research. Stressors such as the difficulty of combining the demands of work and other areas of a person's life (Allen, Pahl & Quine, 1990), the personal emotional impact of working with people with learning disabilities (Halliday, Potts, Howard & Wright, 1992), and unpleasant habits (e.g. loudness, wandering) of service users (Hatton, Brown,

Caine & Emerson, 1995) have all been documented in previous research studies as influences on staff stress. The stressor which gained highest rating of stressfulness was violent service user behaviour (to self, others or property) which was also found to be the top stressor in other studies (e.g. Hatton, Brown, Caine & Emerson, 1995).

Factors associated with the limited functional abilities of service users, including a low level of self care, lack of basic social skills and an unwillingness to function up to ability, were found to be significant stressors, reflecting findings from other research that a major source of staff dissatisfaction was linked to residents' level of functioning (Zaharia & Baumeister, 1978), which was in turn linked to residents' progress. Bromley & Emerson (1995) reported that some of the most significant sources of stress associated with caring for someone with challenging behaviour were the 'daily grind' of caring, the unpredictability of the resident's behaviour and the apparent absence of a way forward.

A constructional approach (Zarkowska & Clements, 1988; 1996) emphasises the use of effective and well researched approaches to reducing inappropriate behaviour such as teaching functionally equivalent skills (e.g. Carr, Robinson, Taylor & Carlson, 1990) and the use of differential reinforcement procedures (e.g. O'Brien & Repp, 1990) and there are many

texts available dealing with skills assessment and service-user skills development (e.g. Donnellan, LaVigna, Negri-Shoultz & Sassbender, 1988). The findings of this research study would suggest that, given the association between external stressors and staff stress and the finding that significant sources of stress are associated with the service users' challenging behaviours, limited functional abilities and a lack of basic skills, training and supporting staff in service user skills development may not only have an impact on the severity of challenging behaviour but may also be important in reducing the high levels of stress associated with direct care staff work.

4.5 The Interaction between Coping Strategies and Stress

The results of this study identified a number of issues concerning the relationship between coping strategies and stress-related outcomes for staff. The findings suggested that the use of wishful-thinking coping strategies was found to be strongly correlated with negative emotional reactions to challenging behaviours and that there was a strong association between wishful-thinking as a coping strategy and greater psychological distress. This confirms earlier research (Hatton, Brown, Caine & Emerson, 1995) which showed the association between wishful-thinking and stress in direct care staff working with people with learning disabilities, a link also found in studies of parents of children with disabilities (e.g. Knussen, Sloper,

Cunningham & Turner, 1992). The link between wishful-thinking and emotional reactions supports the suggestion made by Hatton, Brown, Caine & Emerson (1995) that wishful-thinking is more strongly associated with the emotional aspects of stress. This is consistent with the cognitive-behavioural theory of coping and stress (Folkman & Lazarus, 1995) which identifies emotion focussed coping, as measured by the wishful-thinking sub-scale, as the attempt to alter stressful emotions concerning the stressful situation rather than attempting to alter the situation itself.

The strong association between work-related stressors and the use of wishful-thinking coping strategies was also found by Hatton, Emerson, Rivers, Mason, Swarbrick, Mason, Kiernan, Reeves & Alborz (2001). In their study, they found that high job strain (comparable to 'work-related' stressors) was associated with high use of wishful-thinking and that specific job strain, rather than general stress, was the most important predictor for intended staff turnover. This suggests a mechanism of action in which the greater the level of work-related stressor on the staff member, the more likely the person is to 'wish' that events would improve and result in them focussing on the emotional aspects of the situation, i.e. how they are feeling, as opposed to identifying practical action plans to deal with the stressors. In order to be effective, organisational effort should be addressed at both attempting to reduce work-related stressors, (e.g.

clarifying staff roles, increasing support available to staff, streamlining bureaucratic procedures and encouraging a positive commitment to the organisation) as well as encouraging staff to adopt more appropriate and adaptive coping strategies, as opposed to the use of wishful-thinking. Whilst this study failed to find any association between practical coping and staff stress, (also a finding of Hatton & Emerson (1995)), it has been recognised that wishful-thinking and practical-coping represent two distinct and opposed coping strategies (Hatton, Brown, Caine & Emerson, 1995) and therefore supporting staff to adopt practical-coping would be predicted to be of benefit. This would involve staff training in the use of a problem-focussed approach to dealing with the challenges of the job, directly addressing the sources of the stress so as to bring about change with a positive outcome.

Regression analyses found that the use of wishful-thinking coping strategies was the most highly significant predictor of psychological distress. Analysis of the components of psychological distress found that the use of wishful thinking coping strategies was the most significant predictor for 'anxiety and insomnia' symptoms and 'social dysfunction' symptoms, but was not a significant predictor for 'somatic' symptoms or 'severe depression' symptoms (these were predicted by an interaction between high Neuroticism scores and a negative emotional

reaction – depression/anger). This finding is important as it provides evidence that psychological distress has multiple components, represented by the different symptoms of distress experienced. Furthermore, there appear to be two different psychological processes taking place that influence the different components of psychological distress i.e. the use of wishful thinking resulting in stress symptoms of anxiety and insomnia and social dysfunction and an interaction between high Neuroticism and a negative emotional reaction (depression/anger) resulting in somatic symptoms and severe depression. This has direct clinical implications for the ways in which care staff should be supported.

4.6 The Association between Personality type and Stress

The study found that high Neuroticism was strongly associated with greater levels of psychological distress. This finding confirms previous research (Newbury-Birch & Kamali, 2001) which found that neuroticism was a predisposing factor for stress in junior doctors. Furthermore, a strong association between Neuroticism and a staff member's negative emotional reaction to challenging behaviour was also found. This is a significant finding as, to date, there has been relatively little known about factors which may be associated with, or predict, staff's emotional reaction (Hastings & Brown, 2002).

The relationship between personality and stress may be understood in terms of the personality characteristic of Neuroticism being associated with the person being anxious, worrying, moody and frequently depressed (Eysenck & Eysenck, 1975), and the typical high Neuroticism scorer finding that their strong emotional reactions interfere with their actions leading them to act in irrational ways, finding it difficult to settle back to their normal routine after an emotionally arousing event.

Regression analyses found that Neuroticism (in association with a negative emotional reaction – depression/anger) was a highly significant predictor of two of the sub-scales of the GHQ – ‘Somatic symptoms’ and ‘Severe Depression’. Neuroticism has been described as a marker of ‘psychobiological vulnerability’ in the aetiology of depression (Ormel & Wohlfarth, 1991; Duggan, Sham, Lee, Minne & Murray, 1995) and according to the ‘stress-vulnerability’ model (Brown & Harris, 1989) may increase the risk of onset of depressive episodes by the generation of stressful life events (mediation) and the amplification of their effects (modification). A number of studies in the general population support these assumptions (Fergusson & Horwood, 1987; Bolger & Schilling, 1991).

Research suggests that certain personality profiles appear to increase vulnerability to post-traumatic stress disorder - PTSD (Hyer, Braswell, Albrecht, Boyd, Boudewyns & Talbert, 1994).

High Neuroticism and low Extraversion is reported to be associated with vulnerability to PTSD (Davidson, Kudler & Smith, 1987). Whilst the concept of PTSD as a distinct disorder was primarily developed in relation to combat and wartime atrocities, it has been documented that the disorder can occur in response to traumatic events experienced by individuals in the general population (e.g. Helzer, Robins & McEvoy, 1987). Core features of the diagnosis of PTSD (taken from the DSM-IV, American Psychiatric Association, 1994) are that the person has been exposed to a traumatic event in which the person experienced or witnessed events that involved serious injury or a threat to the physical integrity of self or other; that the person's response involved intense fear, helplessness or horror and that the event is persistently re-experienced in terms of recurring intrusive recollections or dreams with acute psychological distress. There is an emerging body of research that suggests that exposure to episodes of severe challenging behaviours may result in the development of PTSD for a small number of individuals. Further research is needed to explore the potential association between personality type and vulnerability to PTSD. Research could incorporate measures of PTSD e.g. the PTSD Inventory (Solomon, Weisenberg, Schwarzwald & Mikulincer, 1987) or the Impact of Events Scale (Horowitz, Wilner & Alvarez, 1979).

This study would suggest that working with people with challenging behaviours is potentially highly emotionally-arousing and therefore, the response of the high Neuroticism individual may potentially be emotional, irrational and consequently ineffective. This may lead to additional stressors on the individual and therefore greater levels of stress after an episode of challenging behaviour. If the individual continues to be exposed to challenging behaviours this may increase their longer-term vulnerability to depression and other psychological disorders.

4.7 The Link between Emotional reactions and Stress

The findings of this study suggested that having a negative emotional reaction to a challenging behaviour was associated with greater level of psychological distress. This study has extended the findings of previous studies which have described the negative emotional reaction associated with working with people who present with challenging behaviours (e.g. Dagnan, Trower & Smith, 1998; Hastings & Remington, 1995) by identifying an association between the negative emotional reaction of staff and their experience of stress and added further evidence to the assertion that challenging behaviours are generally associated with negative emotions and rarely with positive feelings (Chavira, Lopez, Blacher & Shapiro, 2000). Care staff emotional reactions are important to identify in

relation to the potential interaction between the staff's emotional response and the action that they take. Sharrock, Day, Qazi & Brewin (1990) found that negative emotion was inversely related to optimism about being able to change behaviour, which was in turn a significant predictor of helping behaviour. Dagnan, Trower & Smith (1998) found that negative emotion was significantly related to attributions of controllability, when staff rated behaviour as controllable they reported fewer negative emotions. Therefore, from both an emotional and a behavioural perspective an understanding of the emotional dimensions of dealing with challenging behaviours can increase the understanding of the potential vulnerability of staff in a potentially stressful situation.

4.8 Behavioural Knowledge, Causal Explanations and Stress

Whilst this study failed to find a significant association between knowledge of behavioural principles and emotional reactions to challenging behaviours, it must be concluded that this remains an area requiring further investigation. The measure included in this study to assess staff member's knowledge used an adapted version of an assessment initially developed to assess knowledge of behaviour principles as applied to children, using a number of scenarios based on children's behaviours or aspects of their development. The questionnaire was shortened and scenarios adapted to apply to an adult population (Bennett,

1995) and consequently did not have reliability and validity data. It may be concluded that a better validated, more reliable instrument may have been more appropriate to use.

Hastings & Brown (2002) used the short version of this instrument (Furtkamp, Giffort & Shiers (1982)), but did not need to make any adaptations as this was used within an educational context with teaching staff. They suggested having higher levels of behavioural knowledge was associated with less of a likelihood of reporting negative emotional reactions, however surprisingly staff endorsing behavioural causal models for challenging behaviours reported more negative emotional reactions – the reverse relationship would have been predicted if such beliefs were associated with increased knowledge. This is an area warranting further investigation to examine this relationship, given the established association between negative emotional reactions and stress, and the efforts currently in place in services to train direct care staff in the behavioural management of challenging behaviours emphasising behavioural models of causality (e.g. Zarkowska & Clements, 1996).

4.9 Future Directions for Research

This discussion has identified a number of ways in which the proposed model could be developed, based on the potential

inter-relationship between the variables studied. For example, further investigation into the relationship between personality variables and stress related outcomes; research introducing measures of staff exposure to challenging behaviours as an independent variable and examining the interaction between exposure, coping strategies and stress outcomes; further evaluation of the influence of knowledge and causal beliefs using a more reliable measure to explore the question as to whether it is the staff member's knowledge or their perceptions of challenging behaviour that are most significant in influencing stress outcomes.

Future research could also examine variables not included within this model which could potentially exert an influence. The concept of self-efficacy has been researched in the general psychological literature as a significant predictor of well-being (e.g. Bandura, 1977, Bandura, Adams, Hardy & Howell, 1980). Bandura (1977) proposed that self-efficacy is the psychological process incorporating the individual's motivation, cognitive resources and courses of action needed to exercise control over situational events. An explanation was formulated to explain the complex inter-relationship between beliefs, perceptions, attitudes and overt behaviour. Bandura's (1977) theory emphasised that changes in behaviour or improvement in psychological well-being was best understood in terms of there being an increase in the person's self-efficacy – the belief that

they can successfully perform the desired behaviour in the specific context. Self-efficacy expectancies are proposed to have determined the initial decision to perform a behavioural act, the effort made, and the continued persistence in the face of challenging or difficult environmental demands. Bandura (1977) proposed that it was mainly a perceived 'inefficacy' to cope with potentially aversive events that made them anxiety provoking and potentially resulted in stress. People with a high sense of self-efficacy believe in their own abilities in the face of adversity, interpret problems more as challenges than as threats, experience less negative emotional arousal when engaged in challenging tasks and persevere in difficult situations. Positive self-efficacy was proposed to be associated with better psychological well-being and negative self-efficacy associated with poorer psychological well-being and greater psychological stress (Bandura, 1977).

A range of self-efficacy treatment procedures (Bandura, 1982) have been developed to help individuals with low self-efficacy. The procedures are designed to change behaviours, including stress responses as target behaviour, by altering personal mastery and success. This approach would have much relevance to supporting staff working in services for people with challenging behaviours.

The concept of self-efficacy has very recently been considered as a key factor in understanding staff responses to challenging behaviours. Hastings & Brown (2002) have investigated the significance of self-efficacy in predicting staff well-being and found that staff beliefs about their lack of self-efficacy in dealing with challenging behaviour made them vulnerable to experiencing negative emotional reactions, implying that self-efficacy was an important variable in affecting staff outcomes. However, in their study, the authors did not explore the interactions between self-efficacy, exposure to challenging behaviours and psychological stress – a potential area for future research.

A second area worthy of investigation, relevant to, but not included within this research study, is that of attributions of helping behaviour. Attributional models have been suggested for helping behaviour (Weiner, 1986) but have not been systematically applied to carers of people with learning disabilities. According to Weiner (1980, 1986), the attributions of 'controllability' (whether the person has control over the cause of the behaviour) and 'stability' (whether the cause was likely to be the same each time the behaviour occurs) will determine the emotional reactions of sympathy or anger in the observer and consequently advance or reduce the possibility of the observer offering help. Applying this cognitive-emotional model to challenging behaviours, it may be suggested that a carer would

be more sympathetic and more helpful if the cause of someone's challenging behaviour was seen to be outside of that person's control, (for example, as a result of epilepsy). Furthermore, a carer would be more angry and less helpful if the cause of the person's challenging behaviour was seen to be within that person's control (for example, they are believed to be manipulating the situation).

Sharrock, Day, Qazi & Brewin (1990), in a study in a medium secure unit for mentally disordered offenders, found that both stability and controllability were negatively related to optimism, which was positively related to predicted helping behaviour, but found no evidence of a mediating effect for emotional response. In a study (Dagnan, Trower & Smith, 1998) in a community based service for people with learning disabilities and challenging behaviours, it was found that attributions and emotions reported by carers in response to challenging behaviours were consistent with Weiner's cognitive-emotional model of helping behaviour. A significant correlation was found between attribution of controllability to the cause of challenging behaviour, negative emotion, a lower level of optimism and less willingness to offer extra help. Helping behaviour was found to be most predicted by level of optimism, optimism inversely predicted by negative emotions and negative emotions predicted by the attribution of controllability to the cause of behaviour.

Stanley & Standen (2000) applying Weiner's model to staff working in challenging behaviour settings, found the more independent and outer-directed the challenging behaviour, the greater the carers' attribution of control and negative affect and the less propensity to help. The more self-directed and dependent the client's challenging behaviour, the greater the carer's attributions of stability, positive affect and propensity to help.

Weiner's cognitive-emotional model offers an explanation for staff member's responses to challenging behaviours and the possibility to explore factors which may interact with such responses to contribute to the development and maintenance of challenging behaviours. This links into the present research study and offers a conceptual model to further explore the relationship between the behavioural responses of staff, their attributions, emotional responses, and stress related outcomes.

The psychological model of staff stress, as proposed in the present study is worthy of further research. A significant relationship has been found between external stressors, neurotic personality type, wishful thinking and psychological stress. Negative emotional reactions to challenging behaviours were also found to be associated with psychological distress. Of interest would be further examination of this model,

incorporating a measure of staff exposure to challenging behaviours and a more reliable measure of knowledge of behavioural principles. The use of the GHQ 28 provided a more detailed measure of the relative significance of the different components of the psychological distress experienced by care staff. Future research studies should not only ensure that the conceptualisation of stress is made explicit but also ensure that the tool used to measure stress takes into consideration the different components or symptoms of stress. Future use of the GHQ 28 is recommended as a relevant measure.

4.10 Clinical Practice Implications of this Study

There are a number of clinical implications for practice arising from this research study. An acknowledgement of the significant levels of stress experienced by staff working in challenging behaviour services, should lead to a greater need to understand the factors that influence staff stress and would be of considerable benefit in supporting direct care staff in their work.

A greater clinical recognition and understanding of the experience of stress is needed by staff supporting direct care workers, including service managers as well as other professionals (e.g. community team members).

The model proposed in this study would suggest that there are potentially highly vulnerable groups of staff working in challenging behaviour services. These vulnerabilities may be as a result of personal factors, i.e. high neuroticism personality type, individual coping style, i.e. use of wishful-thinking coping strategies or their reaction to challenging episodes, i.e. negative emotional reaction. Identification of individual vulnerabilities and support to directly address their consequences (e.g. specific stress management, training, supervision, peer support) would be predicted to be more effective than a general (non-specific) stress management programme (e.g. Cooper & Payne, 1988).

Service managers and supervisors have a role working with their staff team (supported by Clinical Psychologists) to identify potential sources of stress and develop strategies for personal and collective responsibility to deal with those stressors. This may include identifications of specific coping strategies, assertiveness training, development of stress management skills, time management and teaching the person problem solving skills (Hawton & Kirk, 1989). It would also be appropriate to consider the specific symptoms of psychological distress experienced by the care staff being supported and ensure that the stress management strategies provided to staff directly address these. For example, if the staff member is showing significant symptoms of severe depression, a cognitive

behavioural approach used to treat depression (Beck, 1976; Beck & Greenberg, 1974) may be adapted and implemented.

In some circumstances changing specific administrative and organisational factors may be of benefit in reducing external stressors. For example, a significant benefit may be gained from reducing or rationalising paperwork and form-filling,

Work-based or off-work counselling services (Rabin, Feldman & Kaplan, 1999) either on an individual or group basis, may serve to directly address sources of stress, coping strategies and improve the overall well-being of the work force through enhancing the general well-being of workers.

When service-users challenge services, the services need to be robust to deal with the challenges and learn from their experiences. A range of elements are required to achieve a strong service: service structures, resources, training, supervision and recruiting, supporting and retaining staff. Services have struggled to identify the person skills specification needed in challenging needs services to reflect service-user need (Hill-Tout & Lowe, 1995) and person specifications are generally written including items on experience, practical and intellectual abilities and knowledge and interests. Felce (1994) suggested also focussing on aspects including living locally, good written and verbal skills and a clean driving licence. Hill-

Tout & Lowe (1995) designed a person specification that expanded upon these ideas to include not only the skills but also the personal attributes required to work with people who challenge, including "Can evaluate situations in a calm manner when under pressure, and can pursue a logical course of action"; "able to be assertive in the face of unreasonable opposition and demonstrate skills of diplomacy in difficult situations"; "Able to talk about personal feelings as they relate to their work, when appropriate". The development of such person specifications (whilst not advocating the use of personality or psychometric assessments) could be informed by the results of this research study to include attributes that reflect practical coping styles, a stable, non-neurotic personality and the abilities to deal successfully with the stressors to which they are exposed.

5. REFERENCES

Aitken, C.J., Tone, E.J., Smith, J.A., Wright, S., Schloss, J.A., & Plant, K.M. (1993). Behavioural knowledge amongst staffing groups for the care of the intellectually disabled. *Behavioral Residential Treatment*, 8, 1-8.

Allen, D., McDonald, L., Dunn, C., & Doyle, T. (1997). Changing care 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*, 18, 101-112.

Allen, P., Pahl, J., & Quine, L. (1990). *Care Staff in transition*. London: H.M.S.O.

American Psychiatric Association (1994). *Diagnostic and Statistical Manual of Mental Disorders, 4th Edition*. Washington D.C.: American Psychiatric Association.

Appley, M. H., & Trumbull, R. (Eds.) (1967). *Psychological stress*. NY: Appleton-Century-Crofts.

Bandura, A.(1977). Self-efficacy: Toward a unifying theory of behavioural change. *Psychology Review*, 84, 191-215.

Bandura, A. (1982). Self-efficacy in human agency. *American Psychologist*, 37, 122-147.

Bandura, A., Adams, N.E., Hardy, A.B., & Howell, G.N. (1980). Tests of the generality of self-efficacy theory. *Cognitive Therapy and Research*, 3, 39-66.

Bau, C.H. & Salzano, F.M. (1995). Alcoholism in Brazil – the role of personality and susceptibility to stress. *Addiction*, 90, 693-698.

Baumeister, A.A. & Zaharia, E.S. (1986). Withdrawal and commitment of basic care staff in residential programs. In, S. Landesman, P.M. Vietze & M.J. Begab (eds.), *Living Environments and mental retardation* (pp. 229-267). Washington DC: American Association on Mental Retardation.

Beck, A.T. (1976). *Cognitive therapy and the emotional disorders*. New York: International Universities Press.

Beck, A.T. & Greenberg, R.L. (1974) *Coping with depression*. Available from: The Center for Cognitive Therapy, Room 602, 133 South 36th Street, Philadelphia, PA, 19104, USA.

Bennett, C. (1996). *A study into the acceptability and effectiveness of interventions for challenging behaviour in people with learning disabilities*. Unpublished MSc dissertation.

Bernard, L.C, & Krupat, E. (1994). *Health Psychology: Biopsychosocial Factors in Health and Illness*. New York: Norton.

Berryman, J., Evans, I.M., & Kalbag, A. (1994). The effects of training in non-aversive behaviour management on the attitudes and understanding of direct care staff. *Journal of Behaviour Therapy and Experimental Psychiatry*, 25, 241-250.

Bersani, H.A. & Heifetz, L.J. (1985) Perceived stress and satisfaction of direct care staff members in community residences for mentally retarded adults. *American Journal of Mental Deficiency*, 90, 289-295.

Bishop, M.M. (1999). *Incorporating dispositional attributes into stress and coping theory; A test of the relations among personality, appraisal and coping*. Unpublished dissertation.

Blumenthal, S., Lavender, T., & Hewson, S. (1998). Role clarity, perception of the organization, and burnout amongst support workers in residential homes for people with intellectual disabilities: A comparison between a National Health Service Trust and a charitable company. *Journal of Intellectual Disability Research*, 42, 409-417.

Blunden, R. & Allen, D. (1987). *Facing the Challenge: An Ordinary Life for People with Learning Difficulties and Challenging Behaviours*. London: Kings Fund.

Bolger, N. & Schilling, E.A. (1991). Personality and the problems of every-day life: the role of neuroticism in exposure and reactivity to daily stressors. *Journal of Personality*, 59, 355-386.

Bolger, N. & Zuckerman, A. (1995). A framework for studying personality in the stress process. *Journal of Personality and Social Psychology*, 69, 890-902.

Borrill, C., Wall, T.D., West, M.A., Hardy, G.E., Shapiro, D.A., Carter, A., Golya, D.A., & Haynes, C.E. (1996). *Mental health workforce in NHS Trusts: Phase 1 final report*. Sheffield: Institute of Work Psychology.

Brace, N., Kemp, R., & Snelgar, R. (2000) *SPSS for Psychologists: A Guide to Data Analysis using SPSS for Windows*. London: Macmillan.

Breakwell, G.M., Hammond, S. & Fife-Shaw, C. (1995). *Research Methods in Psychology*. London: Sage.

Briner, R. & Reynolds, S. (1993). *Bad theory and practice in occupational stress*. SAPU memo no. 1405. Dept of Psychology, Sheffield University, Sheffield.

Bromley, J. & Emerson, E. (1995). Beliefs and emotional reactions of care staff working with people with challenging behaviour. *Journal of Intellectual Disability Research*, 39, 341-352.

Brown, G.W. & Harris, T.O. (eds.). (1989). *Life Events and Illness*. London: Unwin Hyman.

Browner, C.H., Ellis, K.A., Ford, T., Silsby, J., Tampoya, J., & Yee, C. (1987). Stress, social support and health of psychiatric technicians in a state facility. *Mental Retardation*, 25, 131-138.

Buckhalt, J.A., Marchetti, A., & Bearden, L.J. (1990). Sources of job satisfaction reported by direct care staff of large residential mental retardation facilities. *Education and Training in Mental Retardation*, 25, 344-351.

Carson, J., Leary J., Villiers, N., Fagin, L. & Radmall, J. (1995). Stress in mental health nurses: comparison of ward and community staff. *British Journal of Nursing* 4, 579-582.

Carr, E.G., Robinson, S., Taylor, J.C., & Carlson, J.I. (1990). *Positive approaches to the treatment of severe behaviour problems in persons with developmental disabilities: A review and analysis of reinforcement and stimulus-based procedures*. Monograph of the Association for Persons with Severe Handicaps, No 4. Seattle, WA: TASH.

Chavira, V., Lopez, S.R., Blacher, J., & Shapiro, J. (2000). Latina mothers' attributions, emotions, and reactions to the problem behaviors of their children with developmental disabilities. *Journal of Child Psychology and Psychiatry*, 41, 245-252.

Chung, M.C. & Corbett, J., (1998). The Burnout of nursing staff working with challenging behaviour clients in hospital based bungalows and a community unit. *International Journal of Nursing Studies*, 35, 56-64.

Chung, M.C., Corbett, J., & Cumella, S. (1995). Relating burnout to clients' challenging behaviour in people with a learning difficulty: Pilot study 2. *European Journal of Psychiatry*, 10, 155-165.

Coolican, H. (1994). *Research Methods and Statistics in Psychology*. London: Hodder & Stoughton.

Cooper, C.L. & Payne, R. (1988). *Causes, coping and consequences of stress at work*. Chichester: Wiley.

Corrigan, P.W. (1993). Staff stressors at a developmental centre and state hospital. *Mental Retardation*, 31, 234-238.

Cottle, M., Kuipers, L., Murphy, G., & Oakes, P. (1995). Expressed emotion, attributions, and coping in staff who have been victims of violent incidents. *Mental Handicap Research*, 8, 168-183.

Dagnan, D., Trower, P., & Smith, R. (1998). Care staff responses to people with learning disabilities and challenging behaviour: A cognitive-emotional analysis. *British Journal of Clinical Psychology*, 37, 59-68.

Davidson, J., Kudler, H., & Smith, R. (1987). Personality in chronic post-traumatic stress disorder: A study of the Eysenck inventory. *Journal of Anxiety Disorders*, 1, 295-300.

Department of Health (2001). *Valuing People: A New Strategy for Learning Disability for the 21st Century*. London: H.M.S.O.

Donnellan, A.M., LaVigna, G.W., Negri-Shoultz, N., & Sassbender, L.L. (1988). *Progress without Punishment: Effective Approaches for Learners with Behaviour Problems*. New York: Teachers College Press.

Duggan, C., Sham, P., Lee, A., Minne, C., & Murray, R. (1995). Neuroticism: a vulnerability marker for depression: evidence from a family study. *Journal of Affective Disorders*, 35, 139-143.

Dyer, S. & Quine, L. (1998). Predictors of job satisfaction and burnout amongst direct care staff of a community learning disability service. *Journal of Applied Research in Intellectual Disabilities*, 11, 320-332.

Emerson, E. (1995). *Challenging behaviour: Analysis and intervention in people with learning disabilities*. Cambridge: Cambridge University Press.

Emerson, E. & Hatton, C. (1994). *Moving out: The impact of relocation from hospital to community on the quality of life of people with learning disabilities*. Cambridge: Cambridge University Press.

Emerson, E. & Hatton, C. (1996). *Residential provision for people with learning disabilities: An analysis of the 1991 census*. Manchester: Hester Adrian Centre, University of Manchester.

Emerson, E. & McGill, P. (1993). Developing services for people with severe learning disabilities and challenging behaviours: South East Thames Regional Health Authority, 1985-1991. In, I. Fleming & B. Stenfort Kroese (eds.). *People with Learning Disability and Severe Challenging Behaviour: New Developments in Services and Therapy*. Manchester: Manchester University Press.

Emerson, E., Robertson, J., Gregory, N., Hatton, C., Kessissoglou, S., Hallam, A., Knapp, M., Jarbrink, K., Netten, A., & Walsh, P.N.

(1999). The Quality and Costs of Residential Supports for People with Learning Disabilities. Summary and Implications. L.S.E., University of Manchester and University College Dublin.

Eysenck, H.J. & Eysenck, S.B. (1975). *Manual of the Eysenck Personality Questionnaire*. London: Hodder and Stoughton.

Felce, D., de Kock, U., & Repp, A. (1986). An eco-behavioural analysis of small community-based houses and traditional large hospitals for severely and profoundly mentally handicapped adults. *Applied Research in Mental Retardation*, 7, 393-408.

Felce, D., Lowe, K., & Beswick, J. (1993). Staff turnover in ordinary housing services for people with severe or profound mental handicaps. *Journal of Intellectual Disability Research*, 37, 143-152.

Felce, D., Lowe, K., & de Paiva, (1995). Ordinary housing for people with severe learning disabilities and challenging behaviours. In, E. Emerson, P. McGill and J. Mansell (eds.). *Severe Learning Disabilities and Challenging Behaviour: Designing High Quality Services*. London: Chapman and Hall.

Felce, D., Lowe, K., Perry, J., Baxter, H., Jones, E., Hallam, A., & Beecham, J. (1998). Service support to people in Wales with severe intellectual disability and the most severe challenging behaviours: processes outcomes and costs. *Journal of Intellectual Disability Research*, 42, 390-408.

Felce, D. & Perry, J. (1995). The extent of support for ordinary living in staffed housing: The relationship between staffing levels, resident dependency, staff/resident interactions and resident activity pattern. *Social Science and Medicine*, 40, 799-810.

Fergusson, D.M. & Horwood, L.J. (1987). Vulnerability to life events exposure. *Psychological Medicine*, 17, 739-749.

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

Fletcher, B.C. (1991). *Work, Stress, Disease and Life Expectancy*. Chichester: Wiley.

Florian, V., Mikulincer, M., & Taubman, O. (1995). Does hardiness contribute to mental health during a stressful real-life situation? The role of appraisal and coping. *Journal of Personality and Social Psychology*, 68, 687-695.

Folkman, S. & Lazarus, R.S. (1985). If it changes it must be a process: Study of emotion and coping during the three stages of a college examination. *Journal of Personality and Social Psychology*, 48, 150-170.

Freeman, M. (1994). The differential impact on carers dealing with clients with challenging behaviours. *Journal of Community and Applied Social Psychology*, 4, 181-87.

Fryers, T. (1993). Epidemiological thinking in mental retardation: issues in taxonomy and population frequency. In, N.W. Bray, *International Review of Research in Mental Retardation, Volume 19*. San Diego: Academic Press.

Furtkamp, E., Gifford, D., & Schiers, W. (1982). In-class evaluation of behaviour modification knowledge: parallel tests for use in applied settings. *Journal of Behaviour Therapy and Experimental Psychiatry*, 13, 131-134.

Goldberg, D.P. & Hillier, V.F. (1979). A scaled version of the General Health Questionnaire. *Psychological Medicine*, 9, 139-145.

Goldberg, D.P. & Williams, P. (1988). *A users guide to the General Health Questionnaire*. Windsor: NFER-Nelson.

Guppy, A. & Gutteridge, T. (1991). Job satisfaction and occupational stress in UK general hospital nursing staff. *Work and Stress*, 5, 315-323.

Hackman, J. R. & Oldman, G. R. (1975). Development of the Job Diagnostic Survey. *Journal of Applied Psychology* 60, 159-70.

Hall S. & Oliver, C. (1992). Differential effects of self-injurious behaviour on the behaviour of others. *Behavioural Psychotherapy* 20, 355-66.

Halliday, S., Potts, M., Howard, A., & Wright, J. (1992). Caring for people with severe learning difficulties in ordinary housing. *Mental Handicap*, 20, 137-143.

Hastings, R.P. (1995). Understanding factors that influence staff responses to challenging behaviours: An exploratory interview study. *Mental Handicap Research*, 8, 296-320.

Hastings, R.P. (1997). Staff beliefs about the challenge behaviours of children and adults with mental retardation. *Clinical Psychology Review*, 17, 775-790.

Hastings, R.P. & Brown, T. (2002). Behavioural knowledge, causal beliefs and self-efficacy as predictors of special educators' emotional reactions to challenging behaviours. *Journal of Intellectual Disability Research*, 46, 144-150.

Hastings, R.P. & Remington, B. (1994). Rules of engagement: Towards an analysis of staff responses to challenging behaviour. *Research in Developmental Disabilities*, 15, 279-298.

Hastings, R.P. & Remington, B. (1995). The emotional dimension of working with challenging behaviours. *Clinical Psychology Forum*, 79, 11-16.

Hastings, R.P., Remington, B., & Hatton, C. (1995). Future directions for research on staff performance in services for people with learning disabilities. *Mental Handicap Research*, 8, 330-339.

Hatton, C., Brown, R., Caine, A., & Emerson, E. (1995). Stressors, coping strategies and stress-related outcomes among direct care staff in staffed houses for people with learning disabilities. *Mental Handicap Research*, 8, 252-271.

Hatton, C. & Emerson, E. (1993). Organisational predictors of staff stress, satisfaction and intended turnover in a service for people with multiple disabilities. *Mental Retardation*, 31, 388-395.

Hatton, C. & Emerson, E. (1995). The development of a shortened 'ways of coping' questionnaire for use with direct care staff in learning disability services. *Mental Handicap Research*, 8, 237-251.

Hatton, C., Emerson, E., Robertson, L., Henderson, D. & Cooper, J. (1995). *An Evaluation of the Quality and Costs of Services for Adults with Severe Learning Disabilities and Sensory Impairments*. Hester Adrian Research Centre, Manchester University, Manchester.

Hatton, C., Rivers, R., Mason, H., Mason, L., Kiernan, C., Emerson, E., Alborz, A. & Reeves, D. (1999). Staff stressors and staff outcomes in services for people with intellectual disabilities: The Staff Stressor Questionnaire. *Research in Developmental Disabilities*, 20, 269-85.

Hatton, C., Emerson, E., Rivers, M., Mason, H., Mason, L., Swarbrick, R., Kiernan C., Reeves, D., & Alborz, A. (1999). Factors associated with staff stress and work satisfaction in services for people with intellectual disability. *Journal of Intellectual Disability Research*, 43, 253-267.

Hatton, C., Emerson, E., Rivers, M., Mason, H., Swarbrick, R., Mason, L., Kiernan, C., Reeves, D., & Alborz, A. (2001). Factors associated with intended staff turnover and job search behaviour in services for people with intellectual disability. *Journal of Intellectual Disability Research*, 45, 258-270.

Hawton, K. & Kirk, J. (1989). Problem Solving. In, K. Hawton, P.M. Salkovskis, J. Kirk, & D.M. Clark, (eds.). *Cognitive Behaviour Therapy for Psychiatric Problems: A Practical Guide*. Oxford: Oxford Medical Publications.

Helzer, J.E., Robins, L.N., & McEvoy, L. (1987). Post-traumatic stress disorder in the general population. *New England Journal of Medicine*, 317, 1630-1634.

Hill-Tout, J. (1992) Challenging Behaviour and the service organisation: who gets punished for failure? *Clinical Psychology Forum*, 49, 2-7.

Hill-Tout, J. & Lowe, K. (1995) Challenging behaviour: a person specification for hands-on care staff. *Clinical Psychology Forum*, 79, 3-5.

Hyer, L., Braswell, L., Albrecht, B., Boyd, S., Boudewyns, P., & Talbert, S. (1994). Relationship of the NEO-PI to personality styles and severity of trauma in chronic PTSD victims. *Journal of Clinical Psychology*, 50, 699-707.

Imai, K. & Nakachi, K. (2001). Personality types, lifestyle and sensitivity to mental stress in association with NK activity. *International Journal of Hygiene and Environmental Health*, 204, 67-73.

Jenkins, C., Baxter, L., Downton, J., Gibbs, C., & Partridge, J. (1999). When staff training isn't enough: An evaluation of a collaborative approach. *International Journal of Language and Communication Disorders*, 33, 409-414.

Jenkins, R., Rose, J. & Lovell, C. (1997) Psychological well-being of staff working with people who have challenging behaviour. *Journal of Intellectual Disability Research*, 41, 502-511.

John, O.P. (1990) The 'Big Five' factor taxonomy: Dimensions of personality in the natural language and in questionnaires. In L.A.Pervin (ed.), *Handbook of Personality: Theory and Research*. New York: Guildford.

Joyce, T., Ditchfield, H., & Harris, P. (2001). Challenging behaviour in community services. *Journal of Intellectual Disability Research*, 45, 130-138.

Kanfer, R. & Zeiss, A.M. (1983). Depression, interpersonal standard setting, and judgements in self-efficacy. *Journal of Abnormal Psychology*, 92, 319-329.

Knussen, C., Sloper, P., Cunningham C. C. & Turner S. (1992) The use of Ways of Coping (Revised) questionnaire with parents of children with Down's syndrome. *Psychological Medicine*, 22, 775-86.

Lazarus, R.S. (1966). *Psychological stress and the coping process*. N.Y.: McGraw-Hill.

Lazarus, R.S., Averill, J.R., & Opton, E.M. (1974). The psychology of coping: issues of research and assessment. In, G.V.Coelho, D.A.Hamburg & J.E. Adams (eds.). *Coping and Adaption*. New York: Basic Books.

Lazarus, R.S. & Folkman, S. (1984). *Stress, appraisal and coping*. New York; McGraw-Hill.

Livingston, M. & Livingston, H. (1984). Emotional distress in nurses at work. *British Journal of Medical Psychology*, 57, 291-294.

Lowe, K. & Felce, D. (1995). How do carers assess the severity of challenging behaviour? A total population study. *Journal of Intellectual Disability Research*, 39, 117-127.

MacNair, R.B. & Elliot, T.R. (1992). Self-perceived problem solving ability, stress appraisal and coping over time. *Journal of Research in Personality*, 26, 150-164.

Mansell, J., Hughes, H., & McGill, P. (1994). Maintaining local residential placements. In, E. Emerson, P. McGill, & J. Mansell (eds.). *Severe Learning Disabilities and Challenging Behaviours: Designing High Quality Services*. London: Chapman Hall.

Maslach, C. & Jackson, S.E. (1981). *Manual: Maslach Burnout Inventory*, 2nd edition. New York: John Wiley & Sons.

Maslach, C., Jackson, S. E. & Leiter, M. P. (1996). *The Maslach Burnout Inventory Manual 3rd edition*. Palo alto, C.A.: Consulting Psychologists Press.

McCrae, R. R., & Costa, P. T., Jr. (1996). Toward a new generation of personality theories: Theoretical contexts for the five-factor model. In J. S. Wiggins (Ed.), *The five-factor model of personality: Theoretical perspectives*. New York: Guilford.

McGrath, A., Reid, N., & Boore, J. (1989). Occupational stress in nursing. *International Journal of Nursing Studies*, 26, 343-358.

McLaren, J. & Bryson, S.E. (1987). Review of recent epidemiological studies of mental retardation: prevalence, associated disorders and etiology. *American Journal of Mental Retardation*, 92, 243-254.

Minium, E.W., King, B.M., & Bear, G. (1993). *Statistical Reasoning in Psychology and Education*. New York: John Wiley & Sons.

Mitchell, G. & Hastings, R.P. (1998). Learning disability care staff's emotional reactions to aggressive behaviours: Development of a measurement tool. *British Journal of Clinical Psychology*, 37, 441-449.

Mitchell, G. & Hastings, R.P. (2001). Coping, burnout, and emotion in staff working in community services for people with challenging behaviours. *American Journal on Mental Retardation*, 106, 448-459.

Molassiotis, A., van den Akker, O.B., & Boughton, B.J. (1995). Psychological stress in nursing and medical staff on bone marrow transplant units. *Bone Marrow Transplantation*, 15, 449-454.

Morgan, G.M. & Hastings, R.P. (1998). Special educators' understanding of challenging behaviours in children with learning disabilities: Sensitivity to information about behavioural function. *Behavioural and Cognitive Psychotherapy*, 26, 43-52.

Moroi, K. (1999). Burnout among human service workers in special nursing homes for the elderly. *Japanese Journal of Experimental Social Psychology*, 39, 75-85.

Murray, G.C., Sinclair, B., Kidd, G. R. & Quigley, A. (1999). The relationship between staff sickness levels and client assault levels in a health service in a health service unit for people with an intellectual disability and severely challenging behaviour. *Journal of Applied Research in Intellectual Disabilities*, 12, 263-268.

Newbury-Birch, D. & Kamali, F. (2001) Psychological stress, anxiety, depression, job satisfaction and personality characteristics in pre-registration house officers. *Postgraduate Medical Journal*, 77, 109-111.

Newman, I. & Emerson, E., (1991) Specialised treatment units for people with challenging behaviours. *Mental Handicap* 19, 113-119.

Nihara, K., Leland, H., & Lambert, N. (1993). *AAMR Adaptive Behavioural Scale-Residential and Community*, 2nd edn. Austin, Texas: Pro-Ed.

O'Brien, J. (1987). A guide to life style planning: Using the Activities Catalogue to integrate services and natural support systems. In B. Wilcox & G.T. Bellamy (eds.). *The Activities Catalogue: An Alternative Curriculum for Youth and Adults with Severe Disabilities*. Baltimore, MD: Paul H. Brookes.

O'Brien, S. & Repp, A.C. (1990). Reinforcement-based reductive procedures: a review of 20 years of their use with persons with severe or profound mental retardation. *Journal of the Association for Persons with Severe Handicaps*, 15, 148-159.

O'Brien, J. & Tyne, A. (1981). *The Principle of Normalisation: A Foundation for Effective Services*. London: CMHERA.

O'Dell, S.L., Tarler-Benlolo, L. & Flynn, J.M. (1979). An instrument to measure knowledge of behavioural principles as applied to

children. *Journal of Behaviour Therapy and Experimental Psychiatry*, 10, 29-34.

Oliver, C. (1995). Self-injurious behaviour in children with learning disabilities: recent advances in assessment and intervention. *Journal of Child Psychology and Psychiatry*, 36, 909-927.

Ormel, J. & Wohlfarth, T.D. (1991). How neuroticism, long-term difficulties and changes in quality of life affect psychological distress: a longitudinal approach. *Journal of Personality and Social Psychology*, 60, 744-755.

Parkes, K.R. (1987). Coping in stressful episodes: The role of individual differences, environmental factors, and situational characteristics. *Journal of Personality and Social Psychology*, 51, 1277-1292.

Pervin L.A. (1990). *Handbook of Personality: Theory and Research*. New York: Guildford.

Potts M., Halliday S., Plimley C., Wright K. & Cuthbertson A., (1995). Staff stress in small staffed houses in the community: 1. *British Journal of Nursing*, 4, 452-458.

Power, K. G. & Sharp, G.R, (1988) A comparison of nursing stress and job satisfaction among mental handicap and hospice nursing staff. *Journal of Advanced Nursing*, 13, 726-732.

Prosser, D., Johnson, S., Kuipers, E., Szmuckler, G., Bebbington, P., & Thornicroft, G. (1996). Mental health, 'burnout' and job satisfaction among hospital and community-based mental health staff. *British Journal of Psychiatry*, 169, 334-337.

Rabin, S., Feldman, D., & Kaplan, Z. (1999). Stress and intervention strategies in mental health professionals. *British Journal of Medical Psychology*, 72, 159-169.

Razza, N.J., (1993). Determinants of direct care staff turnover in group homes for individuals with mental retardation. *Mental Retardation*, 8, 284-291.

Resnick, H.S., Kilpatrick, D. G., Dansky, B.S., Saunders, B. E. & Best, C. L. (1993). Prevalence of civilian trauma and post- traumatic stress disorder in a representative national sample of women. *Journal of Consulting Clinical Psychology*, 61, 984-991.

Rose, J. (1995). Stress and staff in residential settings: Towards an integration of research. *Mental Handicap Research*, 8, 220-236.

Rose, J. (1997). Stress and stress management training. *Tizard Learning Disability Review*, 2, 8-15.

Rose, J. (1999). Stress and residential staff who work with people who have an intellectual disability; a factor analytic study. *Journal of Intellectual Disability Research*, 43, 268-278.

Rose, J., Jones, F., & Fletcher, C.B. (1998). Investigating the relationship between stress and worker behaviour. *Journal of Intellectual Disability Research*, 42, 163-172.

Rose, J. & Schelewa-Davies, D. (1997). Staff stress and team climate. *Journal of Learning Disabilities*, 1, 19-24.

Schoonjans, F. (1993). MedCalc Version 7.0.1.1.
<http://www.medcalc.be>.

Selye, H. (1956). *The Stress of Life*. N. Y.: McGraw-Hill.

Selye, H. (1982). History and present status of the stress concept. In L. Goldberger & S. Breznitz, eds. *Handbook of Stress: Theoretical and Clinical Aspects*. New York: The Free Press.

Selye, H. (1985). History and present status of the stress concept. In A. Monat & R.S.Lazarus, eds. *Stress and Coping*, 2nd edition. New York: Columbia University.

Shaddock, A. J, Hill, M. & van Limbeek, C. (1998). Factors associated with burnout in workers in residential for people with an intellectual disability. *Journal of Intellectual and Development Disabilities*, 23, 309-318.

Sharrard, H. E. (1992). Feeling the strain: job stress and satisfaction of direct care staff in the mental handicap service. *British Journal of Mental Subnormality*, 38, 32-38.

Sharrock, R., Day, A., Qazi, F., & Brewin, C.R. (1990). Explanations by professional care staff, optimism, and helping behaviour: An application of attribution theory. *Psychological Medicine*, 20, 849-855.

Shepherd, G., Muijen, M., Dean, R., & Cooney, M. (1996). Residential care in hospital and in the community – Quality of care and quality of life. *British Journal of Psychiatry*, 168, 448-456.

Sloper, P., Knussen, C, Turner, S. & Cunningham, C. C. (1991). Factors related to stress and satisfaction with life in families of children with Down's syndrome. *Journal of Child Psychology and Psychiatry*, 32, 655-676.

Sloper, P. & Turner, S. (1991). *Adaptation and Help Seeking Strategies in Families of Children with Physical Disabilities*. Hester Adrian Research Centre, University of Manchester:

Solomon, Z., Weisenberg, M., Schwarzwald, J., & Mikulincer, M. (1987). Post-traumatic stress disorder among frontline soldiers with combat stress reaction: the 1982 Israeli experience. *American Journal of Psychiatry*, 144, 448-454.

Stanley, B. & Standen, P.J. (2000). Carers' attributions for challenging behaviour. *British Journal of Clinical Psychology*, 39, 157-168.

Strahan R. & Gerbasi K. C. (1972). Short homogeneous version of the Marlowe-Crown Social Desirability Scale. *Journal of Clinical Psychology*, 28, 191-193.

Stenfort Kroese, B. & Fleming, I. (1992). Staff's attitudes and working conditions in community-based group homes of people with mental handicaps. *Mental Handicap Research*, 5, 82-91.

Taylor, M., Brice, J., & Buck, N. (1995). *British Household Panel Survey User Manual*. Colchester: University of Essex.

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

Tomaka J, Blascovich J, Kelsey R. M. & Leitten C. L., (1993) Subjective, physiological, and behavioural effects of threat and challenge appraisal. *Journal of Personality and Social Psychology* 65, 248-280.

Tyler, P. & Cushway, D. (1992). Stress, coping and mental well-being in hospital nurses, *Stress Medicine*, 8, 91-98.

Wall, T.D., Bolden, R.I., Borilla, C.S., Carter, A.J., Golya, D.A., Hardy, G.E., Haynes, C.E., Rick, J.E., Shapiro, D.A., & West, M.A.

(1997). Minor psychiatric disorder in NHS trust staff: occupational and gender differences. *British Journal of Psychiatry*, 171, 519-523.

Warr, P. (1987) *Work, Unemployment and Mental Health*. Oxford: Oxford University Press.

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* 30,1142-62.

Wolfensberger, W. (1972). *The Principle of Normalization in Human Services*. Toronto: National Institute on Mental Retardation.

Wright, S.P. (1992). Adjusted P-values for simultaneous inference. *Biometrics*, 48, 1005-1013.

Zaharia, E.S. & Baumeister, A.A. (1978). Technician turnover and absenteeism in public residential facilities. *American Journal of Mental Deficiency*, 82, 580-593.

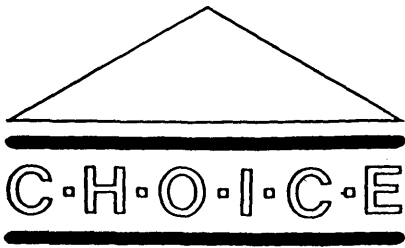
Zarkowska, E. & Clements, J. (1988). *Problem Behaviour and People with, Severe Learning Disabilities: A Practical Guide to a Constructional Approach*. London: Croom Helm.

Zarkowska, E. & Clements, J. (1996). *Problem Behaviour and People with Severe Learning Disabilities The Star approach*. London: Chapman & Hall.

6. APPENDICES

APPENDIX 1: CONFIRMATION LETTER OF ETHICAL APPROVAL

ORIENTATION
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THE BOOK.



Spinnaker House, 48 High Street
Bagshot, Surrey. GU19 5AW
Tel: 0276 452554 Fax: 0276 452242

Our Ref: PG/DA

12th May 1998

To Whom It May Concern:

Dear Sirs

**Re: Research Study Conducted by Roman Raczka
University of Leicester**

The proposal to conduct a research study by Roman Raczka into the relationship between working with people with challenging behaviours and staff stress has been read and reviewed by the Company Ethics Committee and our advisors. We have been assured that participation is voluntary and that names or other identifying features of staff are not to be included or reported in the study.

Ethical approval has been granted to Roman Raczka to conduct this research as detailed in the proposal. Any significant alterations to the proposal should be forwarded to myself on behalf of the Ethics Committee for further discussion and review.

Yours faithfully

**Paul Gold
Managing Director**

APPENDIX 2: STAFF INFORMATION SHEET

**An Investigation in to the Experience of Caring for People with
Learning Disabilities and Challenging Behaviours.**

Letter of Consent for Participants

I am carrying out a research study as part of a degree at the University of Leicester. I would like your participation in this study and am interested in your experiences of caring for people with learning disabilities and challenging behaviours. Your participation is entirely voluntary.

If you agree to participate, you will need to complete the Questionnaire pack which should take between 30 and 40 minutes of your time. You will be asked general questions about yourself as well as questions that will indicate your understanding and approaches to working with people with disabilities.

You do not need to fill in your name or any other identifying features on the questionnaire pack. Personal information will not be viewed by anyone else other than myself and I will have no way of associating this information with any specific staff members. Your anonymity is guaranteed. Results of this study will not include the names of any staff or any other identifying details.

Completion and return of the questionnaire (in the stamp addressed envelope attached) will be taken as you giving your consent to be included as a participant in the study. You may withdraw you participation at any time, however you should remember that once you have returned the questionnaire in the sealed envelope there will be no way of identifying your individual questionnaire.

If you have any questions about the research study please contact me, Roman Raczka on mobile telephone number 0860588532.

Thankyou

A handwritten signature in black ink, appearing to read 'R Raczka', with a long horizontal flourish extending to the right.

Roman Raczka
Clinical Psychologist

APPENDIX 3: STAFF DEMOGRAPHIC INFORMATION

Descriptives

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Age in years	69	20	54	29.54	8.82
Time in home in years	69	.08	9.50	1.9380	1.8169
Time in care in years	69	.16	30.00	5.1642	5.7220
EPQ - Extraversion versus Introversion	69	1	11	6.97	2.66
EPQ - Neuroticism	69	0	12	5.65	3.80
Ways of Coping - Wishful Thinking	69	7	27	15.77	4.96
Ways of Coping- Practical Thinking	69	15	28	23.03	3.17
Behavioural Knowledge	69	2	11	6.23	2.04
Work Stress	69	29	71	50.17	12.69
Client Stress	69	15	44	26.38	7.84
emotions depression anger	69	0	14	5.00	3.81
emotions fear anxiety	69	0	14	3.87	3.54
Illness in days	69	0	90	6.57	11.84
Stress days off	69	0	7	1.65	2.29
STRESS AT WORK	69	2	7	4.14	1.52
GHQ	69	4	63	23.94	14.52
GHQ - somatic	69	0	16	7.96	4.56
GHQ - anxiety and insomnia	69	0	18	6.52	5.38
GHQ - social dysfunction	69	2	21	7.77	3.75
GHQ - severe depression	69	0	9	1.68	2.67
GHQ case scoring	69	0	23	6.10	6.57
Valid N (listwise)	69				

Frequencies

Statistics

		AGE	GENDER	STATUS	ETHNIC MINORITY	TIME IN HOME	TIME IN CARE PROFESSION
N	Valid	69	69	69	69	69	69
	Missing	0	0	0	0	0	0

Statistics

		ILLNESS	ILLNESS DUE TO STRESS
N	Valid	69	69
	Missing	0	0

Frequency Table

AGE

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	18-24	31	44.9	44.9	44.9
	25-34	19	27.5	27.5	72.5
	35-44	15	21.7	21.7	94.2
	45-54	4	5.8	5.8	100.0
	Total	69	100.0	100.0	

GENDER

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	female	42	60.9	60.9	60.9
	male	27	39.1	39.1	100.0
	Total	69	100.0	100.0	

STATUS

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	single	24	34.8	34.8	34.8
	living with partner	45	65.2	65.2	100.0
	Total	69	100.0	100.0	

ETHNIC MINORITY

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid non ethnic minority	60	87.0	87.0	87.0
ethnic minority	9	13.0	13.0	100.0
Total	69	100.0	100.0	

TIME IN HOME

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid LESS THAN 3 MTHS	5	7.2	7.2	7.2
3 MTHS - 1 YR	30	43.5	43.5	50.7
1YR - 3 YRS	23	33.3	33.3	84.1
3 YRS - 6 YRS	10	14.5	14.5	98.6
6 YRS +	1	1.4	1.4	100.0
Total	69	100.0	100.0	

TIME IN CARE PROFESSION

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid LESS THAN 3MTHS	2	2.9	2.9	2.9
3 MTHS - 1YR	13	18.8	18.8	21.7
1 YR - 3 YRS	22	31.9	31.9	53.6
3 YRS - 6 YRS	17	24.6	24.6	78.3
6 YRS +	15	21.7	21.7	100.0
Total	69	100.0	100.0	

ILLNESS

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 0 DAYS	8	11.6	11.6	11.6
1 - 3 DAYS	25	36.2	36.2	47.8
4 - 6 DAYS	18	26.1	26.1	73.9
7 - 9 DAYS	5	7.2	7.2	81.2
10 +	13	18.8	18.8	100.0
Total	69	100.0	100.0	

ILLNESS DUE TO STRESS

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 0 DAYS	43	62.3	62.3	62.3
1 - 3 DAYS	7	10.1	10.1	72.5
4 - 6 DAYS	19	27.5	27.5	100.0
Total	69	100.0	100.0	

APPENDIX 4: KOLMOGOROV-SMIRNOV TEST RESULTS

NPar Tests

One-Sample Kolmogorov-Smirnov Test

		EPQ - Extraversion versus Introversion
N		69
Normal Parameters ^{a,b}	Mean	6.97
	Std. Deviation	2.66
Most Extreme Differences	Absolute	.148
	Positive	.113
	Negative	-.148
Kolmogorov-Smirnov Z		1.227
Asymp. Sig. (2-tailed)		.098

a. Test distribution is Normal.

b. Calculated from data.

NPar Tests

One-Sample Kolmogorov-Smirnov Test

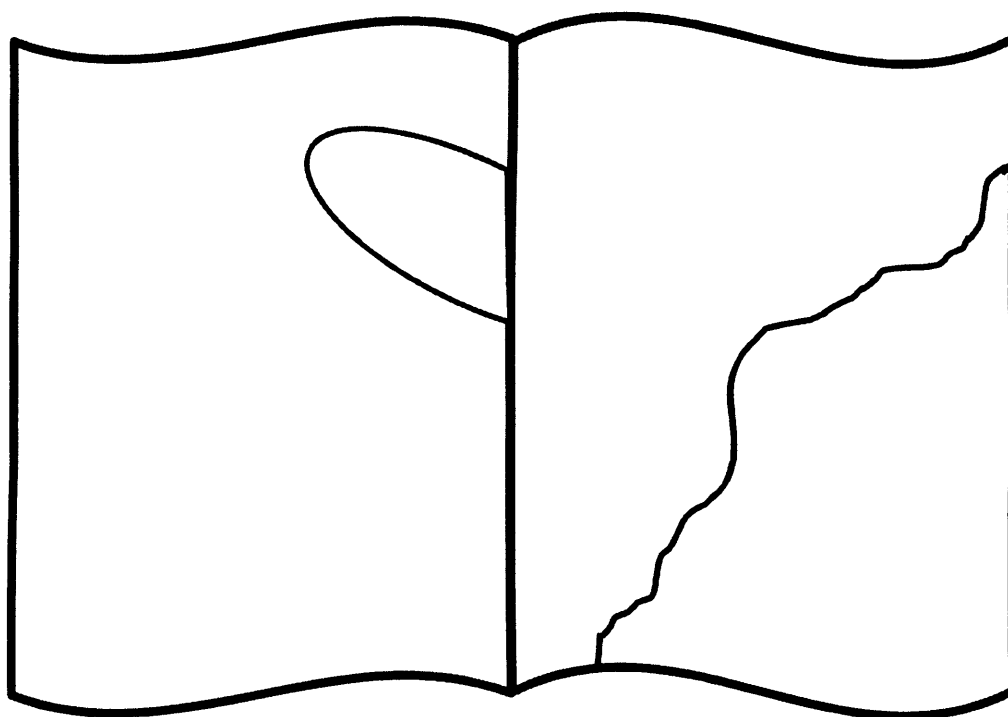
		EPQ - Neuroticism
N		69
Normal Parameters ^{a,b}	Mean	5.65
	Std. Deviation	3.80
Most Extreme Differences	Absolute	.149
	Positive	.149
	Negative	-.101
Kolmogorov-Smirnov Z		1.235
Asymp. Sig. (2-tailed)		.094

a. Test distribution is Normal.

b. Calculated from data.

NPar Tests

SPECIAL NOTICE



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One-Sample Kolmogorov-Smirnov Test

		Work Stress
N		69
Normal Parameters ^{a,b}	Mean	50.17
	Std. Deviation	12.69
Most Extreme Differences	Absolute	.099
	Positive	.092
	Negative	-.099
Kolmogorov-Smirnov Z		.826
Asymp. Sig. (2-tailed)		.502

a. Test distribution is Normal.

b. Calculated from data.

NPar Tests

One-Sample Kolmogorov-Smirnov Test

		Client Stress
N		69
Normal Parameters ^{a,b}	Mean	26.38
	Std. Deviation	7.84
Most Extreme Differences	Absolute	.120
	Positive	.120
	Negative	-.082
Kolmogorov-Smirnov Z		1.001
Asymp. Sig. (2-tailed)		.269

a. Test distribution is Normal.

b. Calculated from data.

NPar Tests

One-Sample Kolmogorov-Smirnov Test

		Ways of Coping - Wishful Thinking
N		69
Normal Parameters ^{a,b}	Mean	15.77
	Std. Deviation	4.96
Most Extreme Differences	Absolute	.119
	Positive	.119
	Negative	-.069
Kolmogorov-Smirnov Z		.989
Asymp. Sig. (2-tailed)		.282

a. Test distribution is Normal.

b. Calculated from data.

One-Sample Kolmogorov-Smirnov Test

		Work Stress
N		69
Normal Parameters ^{a,b}	Mean	50.17
	Std. Deviation	12.69
Most Extreme Differences	Absolute	.099
	Positive	.092
	Negative	-.099
Kolmogorov-Smirnov Z		.826
Asymp. Sig. (2-tailed)		.502

a. Test distribution is Normal.

b. Calculated from data.

NPar Tests

One-Sample Kolmogorov-Smirnov Test

		Client Stress
N		69
Normal Parameters ^{a,b}	Mean	26.38
	Std. Deviation	7.84
Most Extreme Differences	Absolute	.120
	Positive	.120
	Negative	-.082
Kolmogorov-Smirnov Z		1.001
Asymp. Sig. (2-tailed)		.269

a. Test distribution is Normal.

b. Calculated from data.

NPar Tests

One-Sample Kolmogorov-Smirnov Test

		Ways of Coping - Wishful Thinking
N		69
Normal Parameters ^{a,b}	Mean	15.77
	Std. Deviation	4.96
Most Extreme Differences	Absolute	.119
	Positive	.119
	Negative	-.069
Kolmogorov-Smirnov Z		.989
Asymp. Sig. (2-tailed)		.282

a. Test distribution is Normal.

b. Calculated from data.

One-Sample Kolmogorov-Smirnov Test

		Ways of Coping- Practical Thinking
N		69
Normal Parameters ^{a,b}	Mean	23.03
	Std. Deviation	3.17
Most Extreme Differences	Absolute	.124
	Positive	.072
	Negative	-.124
Kolmogorov-Smirnov Z		1.031
Asymp. Sig. (2-tailed)		.238

a. Test distribution is Normal.

b. Calculated from data.

NPar Tests

One-Sample Kolmogorov-Smirnov Test

		emotions fear anxiety
N		69
Normal Parameters ^{a,b}	Mean	3.87
	Std. Deviation	3.54
Most Extreme Differences	Absolute	.139
	Positive	.139
	Negative	-.137
Kolmogorov-Smirnov Z		1.153
Asymp. Sig. (2-tailed)		.140

a. Test distribution is Normal.

b. Calculated from data.

NPar Tests

One-Sample Kolmogorov-Smirnov Test

		Behavioural Knowledge
N		69
Normal Parameters ^{a,b}	Mean	6.23
	Std. Deviation	2.04
Most Extreme Differences	Absolute	.125
	Positive	.125
	Negative	-.121
Kolmogorov-Smirnov Z		1.038
Asymp. Sig. (2-tailed)		.231

a. Test distribution is Normal.

b. Calculated from data.

One-Sample Kolmogorov-Smirnov Test

		GHQ
N		69
Normal Parameters ^{a,b}	Mean	23.94
	Std. Deviation	14.52
Most Extreme Differences	Absolute	.137
	Positive	.137
	Negative	-.108
Kolmogorov-Smirnov Z		1.139
Asymp. Sig. (2-tailed)		.150

a. Test distribution is Normal.

b. Calculated from data.

APPENDIX 5: PEARSON'S CORRELATION RESULTS

Correlations

Correlations

		EPQ - Extraversion versus Introversion	EPQ - Neuroticism	Work Stress	Client Stress
EPQ - Extraversion versus Introversion	Pearson Correlation Sig. (1-tailed) N	1.000 . 69	-.463** .000 69	-.368** .001 69	-.175 .075 69
EPQ - Neuroticism	Pearson Correlation Sig. (1-tailed) N	-.463** .000 69	1.000 . 69	.404** .000 69	.403** .000 69
Work Stress	Pearson Correlation Sig. (1-tailed) N	-.368** .001 69	.404** .000 69	1.000 . 69	.665** .000 69
Client Stress	Pearson Correlation Sig. (1-tailed) N	-.175 .075 69	.403** .000 69	.665** .000 69	1.000 . 69
Ways of Coping - Wishful Thinking	Pearson Correlation Sig. (1-tailed) N	-.490** .000 69	.766** .000 69	.517** .000 69	.436** .000 69
Ways of Coping- Practical Thinking	Pearson Correlation Sig. (1-tailed) N	.298** .006 69	-.321** .004 69	-.180 .070 69	-.322** .003 69
emotions depression anger	Pearson Correlation Sig. (1-tailed) N	-.149 .110 69	.597** .000 69	.276* .011 69	.307** .005 69
emotions fear anxiety	Pearson Correlation Sig. (1-tailed) N	-.233* .027 69	.652** .000 69	.402** .000 69	.408** .000 69
GHQ	Pearson Correlation Sig. (1-tailed) N	-.408** .000 69	.714** .000 69	.355** .001 69	.288** .008 69
Behavioural Knowledge	Pearson Correlation Sig. (1-tailed) N	-.088 .236 69	.060 .312 69	-.079 .258 69	-.134 .137 69

Correlations

		Ways of Coping - Wishful Thinking	Ways of Coping- Practical Thinking	emotions depression anger	emotions fear anxiety
EPQ - Extraversion versus Introversion	Pearson Correlation Sig. (1-tailed) N	-.490** .000 69	.298** .006 69	-.149 .110 69	-.233* .027 69
EPQ - Neuroticism	Pearson Correlation Sig. (1-tailed) N	.766** .000 69	-.321** .004 69	.597** .000 69	.652** .000 69
Work Stress	Pearson Correlation Sig. (1-tailed) N	.517** .000 69	-.180 .070 69	.276* .011 69	.402** .000 69
Client Stress	Pearson Correlation Sig. (1-tailed) N	.436** .000 69	-.322** .003 69	.307** .005 69	.408** .000 69
Ways of Coping - Wishful Thinking	Pearson Correlation Sig. (1-tailed) N	1.000 .000 69	-.315** .004 69	.620** .000 69	.666** .000 69
Ways of Coping- Practical Thinking	Pearson Correlation Sig. (1-tailed) N	-.315** .004 69	1.000 .000 69	-.308** .005 69	-.392** .000 69
emotions depression anger	Pearson Correlation Sig. (1-tailed) N	.620** .000 69	-.308** .005 69	1.000 .000 69	.762** .000 69
emotions fear anxiety	Pearson Correlation Sig. (1-tailed) N	.666** .000 69	-.392** .000 69	.762** .000 69	1.000 .000 69
GHQ	Pearson Correlation Sig. (1-tailed) N	.743** .000 69	-.220* .035 69	.679** .000 69	.610** .000 69
Behavioural Knowledge	Pearson Correlation Sig. (1-tailed) N	.099 .210 69	.158 .097 69	-.072 .278 69	-.244* .022 69

Correlations

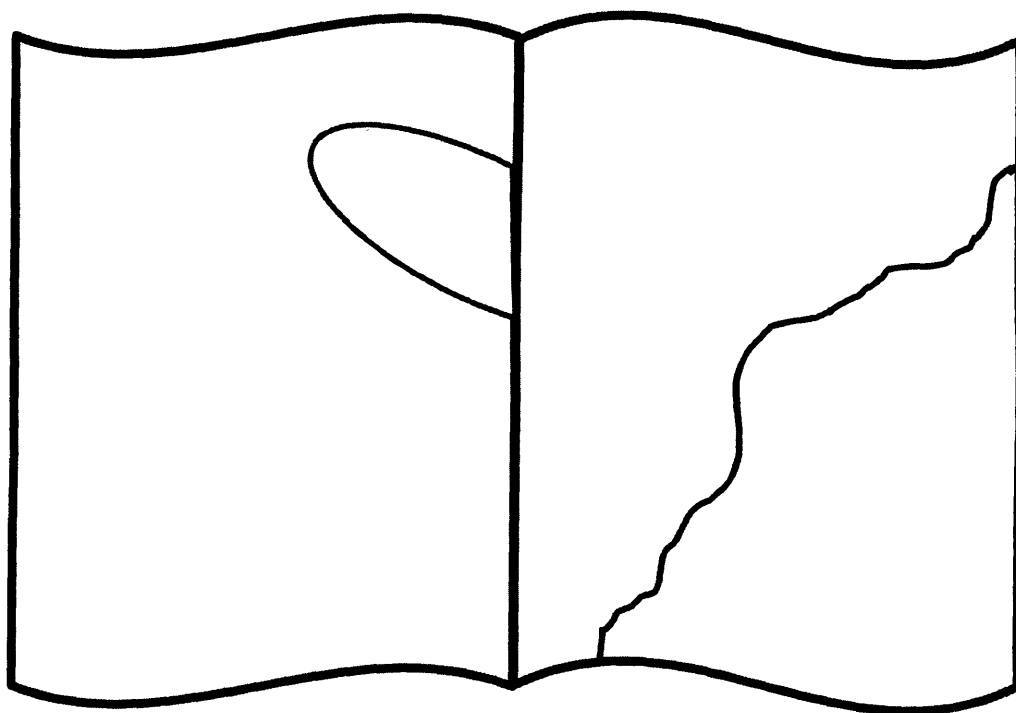
		GHQ	Behavioural Knowledge
EPQ - Extraversion versus Introversion	Pearson Correlation	-.408**	-.088
	Sig. (1-tailed)	.000	.236
	N	69	69
EPQ - Neuroticism	Pearson Correlation	.714**	.060
	Sig. (1-tailed)	.000	.312
	N	69	69
Work Stress	Pearson Correlation	.355**	-.079
	Sig. (1-tailed)	.001	.258
	N	69	69
Client Stress	Pearson Correlation	.288**	-.134
	Sig. (1-tailed)	.008	.137
	N	69	69
Ways of Coping - Wishful Thinking	Pearson Correlation	.743**	.099
	Sig. (1-tailed)	.000	.210
	N	69	69
Ways of Coping- Practical Thinking	Pearson Correlation	-.220*	.158
	Sig. (1-tailed)	.035	.097
	N	69	69
emotions depression anger	Pearson Correlation	.679**	-.072
	Sig. (1-tailed)	.000	.278
	N	69	69
emotions fear anxiety	Pearson Correlation	.610**	-.244*
	Sig. (1-tailed)	.000	.022
	N	69	69
GHQ	Pearson Correlation	1.000	.080
	Sig. (1-tailed)	.	.257
	N	69	69
Behavioural Knowledge	Pearson Correlation	.080	1.000
	Sig. (1-tailed)	.257	.
	N	69	69

** . Correlation is significant at the 0.01 level (1-tailed).

* . Correlation is significant at the 0.05 level (1-tailed).

**APPENDIX 6: MULTIPLE REGRESSION ANALYSES WITH GHQ AS
DEPENDENT VARIABLE**

SPECIAL NOTICE



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Regression

Variables Entered/Removed^a

Model	Variables Entered	Variables Removed	Method
1	Ways of Coping - Wishful Thinking		Stepwise (Criteria: Probability-of-F-to-enter ≤ .005, Probability-of-F-to-remove ≥ .050).
2	emotions depression anger		Stepwise (Criteria: Probability-of-F-to-enter ≤ .005, Probability-of-F-to-remove ≥ .050).

a. Dependent Variable: GHQ

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.743 ^a	.552	.546	9.79
2	.793 ^b	.630	.618	8.97

Model Summary

Model	Change Statistics				
	R Square Change	F Change	df1	df2	Sig. F Change
1	.552	82.685	1	67	.000
2	.077	13.761	1	66	.000

a. Predictors: (Constant), Ways of Coping - Wishful Thinking

b. Predictors: (Constant), Ways of Coping - Wishful Thinking, emotions depression anger

ANOVA^c

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	7918.991	1	7918.991	82.685	.000 ^a
	Residual	6416.777	67	95.773		
	Total	14335.768	68			
2	Regression	9026.058	2	4513.029	56.097	.000 ^b
	Residual	5309.710	66	80.450		
	Total	14335.768	68			

a. Predictors: (Constant), Ways of Coping - Wishful Thinking

b. Predictors: (Constant), Ways of Coping - Wishful Thinking, emotions depression anger

c. Dependent Variable: GHQ

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-10.371	3.953		-2.623	.011
	Ways of Coping - Wishful Thinking	2.176	.239	.743	9.093	.000
2	(Constant)	-6.988	3.736		-1.870	.066
	Ways of Coping - Wishful Thinking	1.533	.280	.524	5.486	.000
	emotions depression anger	1.350	.364	.354	3.710	.000

Coefficients^a

Model		Collinearity Statistics	
		Tolerance	VIF
1	(Constant) Ways of Coping - Wishful Thinking	1.000	1.000
2	(Constant) Ways of Coping - Wishful Thinking emotions depression anger	.616 .616	1.624 1.624

a. Dependent Variable: GHQ

Excluded Variables^c

Model		Beta In	t	Sig.	Partial Correlation
1	EPQ - Neuroticism	.349 ^a	2.891	.005	.335
	Work Stress	-.040 ^a	-.416	.678	-.051
	emotions depression anger	.354 ^a	3.710	.000	.415
	emotions fear anxiety	.207 ^a	1.930	.058	.231
2	EPQ - Neuroticism	.260 ^b	2.226	.029	.266
	Work Stress	-.019 ^b	-.211	.833	-.026
	emotions fear anxiety	-.023 ^b	-.182	.856	-.023

Coefficients^a

Model		Collinearity Statistics	
		Tolerance	VIF
1	(Constant) Ways of Coping - Wishful Thinking	1.000	1.000
2	(Constant) Ways of Coping - Wishful Thinking emotions depression anger	.616 .616	1.624 1.624

a. Dependent Variable: GHQ

Excluded Variables^c

Model		Beta In	t	Sig.	Partial Correlation
1	EPQ - Neuroticism	.349 ^a	2.891	.005	.335
	Work Stress	-.040 ^a	-.416	.678	-.051
	emotions depression anger	.354 ^a	3.710	.000	.415
	emotions fear anxiety	.207 ^a	1.930	.058	.231
2	EPQ - Neuroticism	.260 ^b	2.226	.029	.266
	Work Stress	-.019 ^b	-.211	.833	-.026
	emotions fear anxiety	-.023 ^b	-.182	.856	-.023

Excluded Variables^c

		Collinearity Statistics		
		Tolerance	VIF	Minimum Tolerance
1	EPQ - Neuroticism	.413	2.420	.413
	Work Stress	.733	1.364	.733
	emotions depression anger	.616	1.624	.616
	emotions fear anxiety	.556	1.797	.556
2	EPQ - Neuroticism	.389	2.570	.372
	Work Stress	.730	1.370	.486
	emotions fear anxiety	.359	2.789	.359

- a. Predictors in the Model: (Constant), Ways of Coping - Wishful Thinking
b. Predictors in the Model: (Constant), Ways of Coping - Wishful Thinking, emotions depression anger
c. Dependent Variable: GHQ

Collinearity Diagnostics^a

		Eigenvalue	Condition Index	Variance Proportions		
				(Constant)	Ways of Coping - Wishful Thinking	emotions depression anger
1	1	1.955	1.000	.02	.02	
	2	4.544E-02	6.558	.98	.98	
2	1	2.752	1.000	.01	.01	.03
	2	.215	3.580	.12	.01	.67
	3	3.367E-02	9.040	.87	.98	.31

- a. Dependent Variable: GHQ

**APPENDIX 7: MULTIPLE REGRESSION ANALYSES WITH GHQ
SUB-SCALES AS DEPENDENT VARIABLES**

Regression

Variables Entered/Removed^a

Model	Variables Entered	Variables Removed	Method
1	EPQ - Neuroticism		Stepwise (Criteria: Probability-of-F-to-enter <= .005, Probability-of-F-to-remove >= .050).
2	emotions depression anger		Stepwise (Criteria: Probability-of-F-to-enter <= .005, Probability-of-F-to-remove >= .050).

a. Dependent Variable: GHQ - somatic

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.605 ^a	.366	.357	3.66
2	.665 ^b	.443	.426	3.46

Model Summary

Model	Change Statistics				
	R Square Change	F Change	df1	df2	Sig. F Change
1	.366	38.759	1	67	.000
2	.076	9.043	1	66	.004

a. Predictors: (Constant), EPQ - Neuroticism

b. Predictors: (Constant), EPQ - Neuroticism, emotions depression anger

ANOVA^c

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	519.261	1	519.261	38.759	.000 ^a
	Residual	897.608	67	13.397		
	Total	1416.870	68			
2	Regression	627.425	2	313.712	26.227	.000 ^b
	Residual	789.445	66	11.961		
	Total	1416.870	68			

a. Predictors: (Constant), EPQ - Neuroticism

b. Predictors: (Constant), EPQ - Neuroticism, emotions depression anger

c. Dependent Variable: GHQ - somatic

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.846	.794		4.844	.000
	EPQ - Neuroticism	.727	.117	.605	6.226	.000
2	(Constant)	3.177	.782		4.061	.000
	EPQ - Neuroticism	.481	.138	.400	3.493	.001
	emotions depression anger	.413	.137	.344	3.007	.004

Coefficients^a

Model		Collinearity Statistics	
		Tolerance	VIF
1	(Constant)		
	EPQ - Neuroticism	1.000	1.000
2	(Constant)		
	EPQ - Neuroticism	.644	1.553
	emotions depression anger	.644	1.553

a. Dependent Variable: GHQ - somatic

Excluded Variables^c

Model		Beta In	t	Sig.	Partial Correlation
1	Work Stress	.140 ^a	1.323	.190	.161
	Ways of Coping - Wishful Thinking	.243 ^a	1.625	.109	.196
	emotions depression anger	.344 ^a	3.007	.004	.347
	emotions fear anxiety	.200 ^a	1.577	.120	.191
2	Work Stress	.126 ^b	1.257	.213	.154
	Ways of Coping - Wishful Thinking	.119 ^b	.788	.433	.097
	emotions fear anxiety	-.037 ^b	-.241	.811	-.030

Excluded Variables^c

Model		Collinearity Statistics		
		Tolerance	VIF	Minimum Tolerance
1	Work Stress	.836	1.196	.836
	Ways of Coping - Wishful Thinking	.413	2.420	.413
	emotions depression anger	.644	1.553	.644
	emotions fear anxiety	.575	1.739	.575
2	Work Stress	.835	1.198	.582
	Ways of Coping - Wishful Thinking	.372	2.688	.372
	emotions fear anxiety	.359	2.785	.359

a. Predictors in the Model: (Constant), EPQ - Neuroticism

b. Predictors in the Model: (Constant), EPQ - Neuroticism, emotions depression anger

c. Dependent Variable: GHQ - somatic

Collinearity Diagnostics^a

Model	Dimension	Eigenvalue	Condition Index	Variance Proportions		
				(Constant)	EPQ - Neuroticism	emotions depression anger
1	1	1.832	1.000	.08	.08	
	2	.168	3.300	.92	.92	
2	1	2.662	1.000	.03	.03	.03
	2	.207	3.588	.85	.04	.38
	3	.131	4.507	.11	.94	.59

a. Dependent Variable: GHQ - somatic

Regression

Variables Entered/Removed^a

Model	Variables Entered	Variables Removed	Method
1	Ways of Coping - Wishful Thinking		Stepwise (Criteria: Probability-of-F-to-enter <= .005, Probability-of-F-to-remove >= .050).

a. Dependent Variable: GHQ - anxiety and insomnia

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.746 ^a	.557	.550	3.61

Model Summary

Model	Change Statistics				
	R Square Change	F Change	df1	df2	Sig. F Change
1	.557	84.242	1	67	.000

a. Predictors: (Constant), Ways of Coping - Wishful Thinking

ANOVA^b

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1096.854	1	1096.854	84.242	.000 ^a
	Residual	872.363	67	13.020		
	Total	1969.217	68			

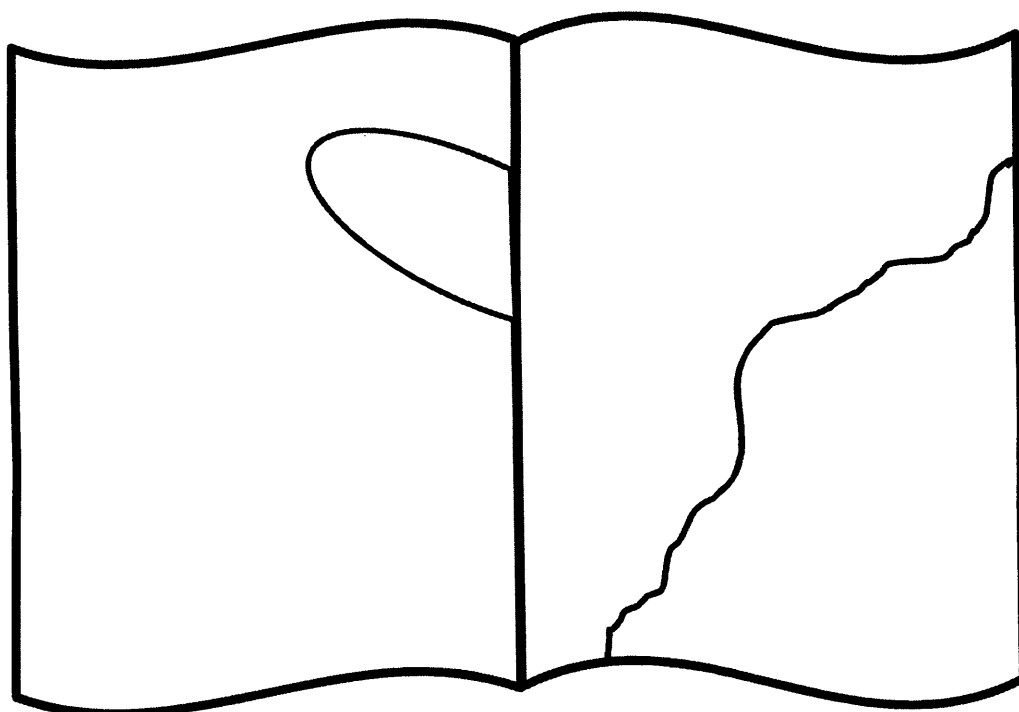
a. Predictors: (Constant), Ways of Coping - Wishful Thinking

b. Dependent Variable: GHQ - anxiety and insomnia

Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	-6.248	1.458		-4.287	.000
Ways of Coping - Wishful Thinking	.810	.088	.746	9.178	.000

SPECIAL NOTICE



DAMAGED TEXT - INCOMPLETE IMAGE

Coefficients^a

Model		Collinearity Statistics	
		Tolerance	VIF
1	(Constant) Ways of Coping - Wishful Thinking	1.000	1.000

a. Dependent Variable: GHQ - anxiety and insomnia

Excluded Variables^b

Model		Beta In	t	Sig.	Partial Correlation
1	EPQ - Neuroticism	.287 ^a	2.340	.022	.277
	Work Stress	.025 ^a	.266	.791	.033
	emotions depression anger	.258 ^a	2.594	.012	.304
	emotions fear anxiety	.179 ^a	1.663	.101	.201

Excluded Variables^b

Model		Collinearity Statistics		
		Tolerance	VIF	Minimum Tolerance
1	EPQ - Neuroticism	.413	2.420	.413
	Work Stress	.733	1.364	.733
	emotions depression anger	.616	1.624	.616
	emotions fear anxiety	.556	1.797	.556

a. Predictors in the Model: (Constant), Ways of Coping - Wishful Thinking

b. Dependent Variable: GHQ - anxiety and insomnia

Collinearity Diagnostics^a

Model Dimension		Eigenvalue	Condition Index	Variance Proportions	
				(Constant)	Ways of Coping - Wishful Thinking
1	1	1.955	1.000	.02	.02
	2	4.544E-02	6.558	.98	.98

a. Dependent Variable: GHQ - anxiety and insomnia

Regression

Variables Entered/Removed^a

Model	Variables Entered	Variables Removed	Method
1	Ways of Coping - Wishful Thinking		Stepwise (Criteria: Probability-of-F-to-enter $\leq$.005, Probability-of-F-to-remove $\geq$.050).

a. Dependent Variable: GHQ - social dysfunction

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.678 ^a	.460	.452	2.78

Model Summary

Model	Change Statistics				
	R Square Change	F Change	df1	df2	Sig. F Change
1	.460	56.976	1	67	.000

a. Predictors: (Constant), Ways of Coping - Wishful Thinking

ANOVA^b

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	439.485	1	439.485	56.976	.000 ^a
	Residual	516.805	67	7.714		
	Total	956.290	68			

a. Predictors: (Constant), Ways of Coping - Wishful Thinking

b. Dependent Variable: GHQ - social dysfunction

Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1					
(Constant)	-.315	1.122		-.281	.780
Ways of Coping - Wishful Thinking	.513	.068	.678	7.548	.000

Coefficients^a

Model		Collinearity Statistics	
		Tolerance	VIF
1	(Constant) Ways of Coping - Wishful Thinking	1.000	1.000

a. Dependent Variable: GHQ - social dysfunction

Excluded Variables^b

Model		Beta In	t	Sig.	Partial Correlation
1	EPQ - Neuroticism	.103 ^a	.736	.464	.090
	Work Stress	-.174 ^a	-1.683	.097	-.203
	emotions depression anger	.283 ^a	2.570	.012	.302
	emotions fear anxiety	.095 ^a	.789	.433	.097

Excluded Variables^b

Model		Collinearity Statistics		
		Tolerance	VIF	Minimum Tolerance
1	EPQ - Neuroticism	.413	2.420	.413
	Work Stress	.733	1.364	.733
	emotions depression anger	.616	1.624	.616
	emotions fear anxiety	.556	1.797	.556

a. Predictors in the Model: (Constant), Ways of Coping - Wishful Thinking

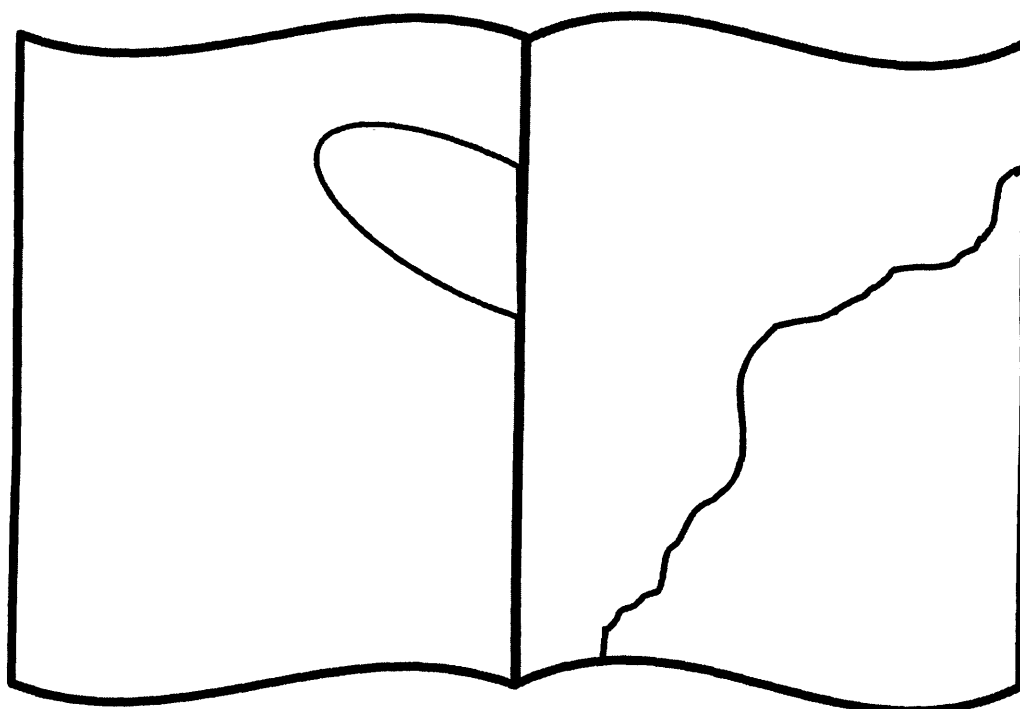
b. Dependent Variable: GHQ - social dysfunction

Collinearity Diagnostics^a

Model Dimension		Eigenvalue	Condition Index	Variance Proportions	
				(Constant)	Ways of Coping - Wishful Thinking
1	1	1.955	1.000	.02	.02
	2	4.544E-02	6.558	.98	.98

a. Dependent Variable: GHQ - social dysfunction

SPECIAL NOTICE



DAMAGED TEXT - INCOMPLETE IMAGE

Regression

Variables Entered/Removed^a

Model	Variables Entered	Variables Removed	Method
1	EPQ - Neuroticism		Stepwise (Criteria: Probability-of-F-to-enter ≤ .005, Probability-of-F-to-remove ≥ .050).
2	emotions depression anger		Stepwise (Criteria: Probability-of-F-to-enter ≤ .005, Probability-of-F-to-remove ≥ .050).

a. Dependent Variable: GHQ - severe depression

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.656 ^a	.430	.421	2.03
2	.707 ^b	.500	.485	1.92

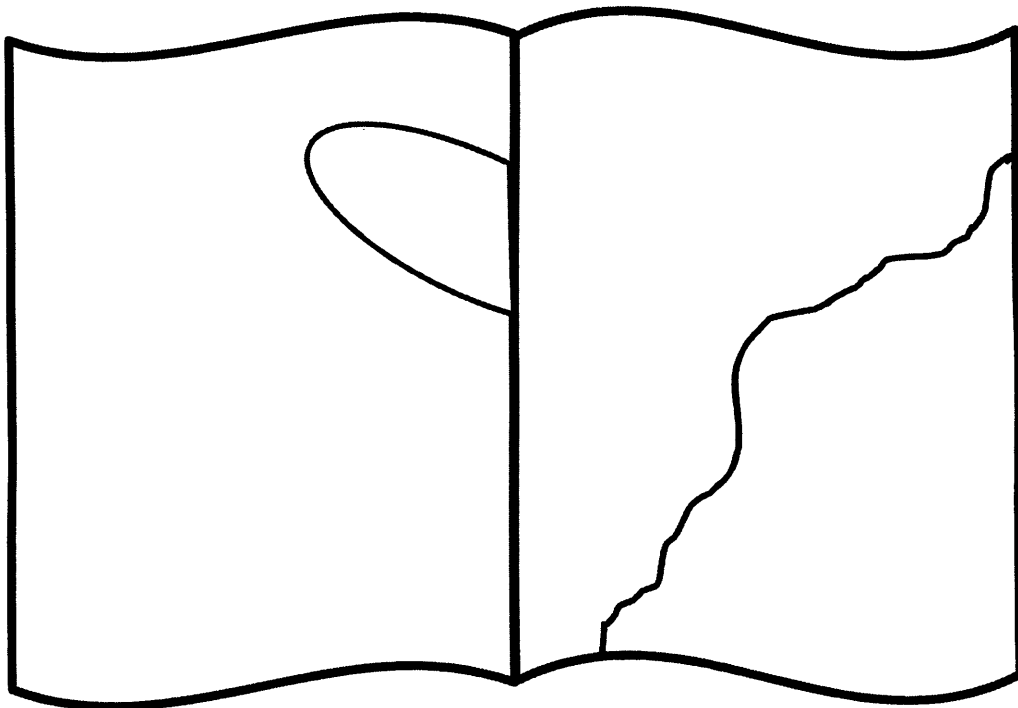
Model Summary

Model	Change Statistics				
	R Square Change	F Change	df1	df2	Sig. F Change
1	.430	50.501	1	67	.000
2	.071	9.335	1	66	.003

a. Predictors: (Constant), EPQ - Neuroticism

b. Predictors: (Constant), EPQ - Neuroticism, emotions depression anger

SPECIAL NOTICE



DAMAGED TEXT - INCOMPLETE IMAGE

ANOVA^c

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	208.443	1	208.443	50.501	.000 ^a
	Residual	276.542	67	4.127		
	Total	484.986	68			
2	Regression	242.709	2	121.355	33.059	.000 ^b
	Residual	242.276	66	3.671		
	Total	484.986	68			

a. Predictors: (Constant), EPQ - Neuroticism

b. Predictors: (Constant), EPQ - Neuroticism, emotions depression anger

c. Dependent Variable: GHQ - severe depression

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-.923	.441		-2.096	.040
	EPQ - Neuroticism	.461	.065	.656	7.106	.000
2	(Constant)	-1.300	.433		-2.999	.004
	EPQ - Neuroticism	.322	.076	.458	4.224	.000
	emotions depression anger	.232	.076	.331	3.055	.003

Coefficients^a

Model		Collinearity Statistics	
		Tolerance	VIF
1	(Constant)		
	EPQ - Neuroticism	1.000	1.000
2	(Constant)		
	EPQ - Neuroticism	.644	1.553
	emotions depression anger	.644	1.553

a. Dependent Variable: GHQ - severe depression

Excluded Variables^c

Model		Beta In	t	Sig.	Partial Correlation
1	Work Stress	-.109 ^a	-1.083	.283	-.132
	Ways of Coping - Wishful Thinking	.268 ^a	1.902	.062	.228
	emotions depression anger	.331 ^a	3.055	.003	.352
	emotions fear anxiety	.181 ^a	1.504	.137	.182
2	Work Stress	-.123 ^b	-1.299	.198	-.159
	Ways of Coping - Wishful Thinking	.152 ^b	1.070	.289	.132
	emotions fear anxiety	-.054 ^b	-.366	.715	-.045

Excluded Variables^c

		Collinearity Statistics		
		Tolerance	VIF	Minimum Tolerance
1	Work Stress	.836	1.196	.836
	Ways of Coping - Wishful Thinking	.413	2.420	.413
	emotions depression anger	.644	1.553	.644
	emotions fear anxiety	.575	1.739	.575
2	Work Stress	.835	1.198	.582
	Ways of Coping - Wishful Thinking	.372	2.688	.372
	emotions fear anxiety	.359	2.785	.359

- a. Predictors in the Model: (Constant), EPQ - Neuroticism
b. Predictors in the Model: (Constant), EPQ - Neuroticism, emotions depression anger
c. Dependent Variable: GHQ - severe depression

Collinearity Diagnostics^a

		Eigenvalue	Condition Index	Variance Proportions		
				(Constant)	EPQ - Neuroticism	emotions depression anger
1	1	1.832	1.000	.08	.08	
	2	.168	3.300	.92	.92	
2	1	2.662	1.000	.03	.03	.03
	2	.207	3.588	.85	.04	.38
	3	.131	4.507	.11	.94	.59

- a. Dependent Variable: GHQ - severe depression

**APPENDIX 8: QUESTIONNAIRE BOOKLET CONTAINING
MEASURES USED**

**ORIENTATION
OF PAGE IS AS
PER THE
ORIGINAL IN
THE BOOK.**

STRICTLY CONFIDENTIAL

WORKING WITH CHALLENGING BEHAVIOURS Staff Questionnaires Pack

Thank you for participating in this important research study and for taking the time to complete this set of questionnaires.

The research study is being carried out by Roman Raczka and is concerned with the experiences of staff working with people who challenge.

All information provided will be treated in strictest confidence. No information will be used or reported which allows identification of the individual by name or any other recognisable identifier. The results should directly influence both residents care and also assist in future staff training and staff support.

The questionnaires should take approximately 30 - 40 minutes to complete. It is important not to discuss your responses with colleagues.

It is important to complete the SELF ASSESSMENT FORM soon after you have been involved in an incident when a service user has been aggressive towards you.

Completion and return of this questionnaire will be taken as your agreement to be included as a participant in this study. Reports of this study will ensure that no names or other recognisable details of participants will be published.

Your participation is voluntary. Thank you for taking the time to complete the questionnaire.

PLEASE ENSURE THAT ALL SECTIONS ARE COMPLETED.

If you have any questions regarding the Staff Questionnaires Pack or the Study please contact Roman A. Raczka on 0860 588 532.

WHEN COMPLETED PLEASE RETURN IN THE STAMP ADDRESSED ENVELOPE.
THANK YOU!

STRICTLY CONFIDENTIAL

Code No: _____

BACKGROUND INFORMATION

1. What is your age? _____
2. What is your gender? _____
3. What is your partnership status? (please tick one)
Single _____
married/living with partner _____
divorced/separated/widowed _____
4. Do you regard yourself as belonging to an ethnic minority group? _____
If Yes, Please specify _____
5. How long have you been working in this home? _____
6. How long have you been working in the caring professions? _____
7. What is your current job title? _____
8. What qualifications do you have (eg GCSE, A-Levels, NVQ, Degree, other) ?
Please specify _____
9. Please list any training courses (in-service or external) attended in last year
10. How many days have you been off work in the last year due to :
illness _____
stress-related problems _____
11. To what extent do you think you have been under stress as a result of your work? (circle one)
not stressed very stressed
1 2 3 4 5 6 7

STRICTLY CONFIDENTIAL

Code No: _____

The following have been found to be sources of stress at work for residential care staff. Please respond by ticking the number which represent the extent to which each item applies to you (represents a source of stress for you).

Work-related stress

	does <u>not</u> apply to me			does apply to me	
	1	2	3	4	
1. too much work to do	—	—	—	—	
2. deficiencies in other staff eg incompetence, turnover	—	—	—	—	
3. job monotony eg too much routine, too little variation	—	—	—	—	
4. personal embarrassment from being with residents in public	—	—	—	—	
5. size of service eg number of people, size of buildings	—	—	—	—	
6. insufficient privacy eg space and time	—	—	—	—	
7. limited chance for professional advancement	—	—	—	—	
8. not having enough authority	—	—	—	—	
9. poor physical working conditions eg lack of work space	—	—	—	—	
10. lack of recognition of my work (from supervisor, family etc)	—	—	—	—	
11. job unpredictability, too much variation, not enough routine	—	—	—	—	
12. management changes within the organisation	—	—	—	—	
13. limited chance for personal advancement eg training	—	—	—	—	
14. having too much responsibility	—	—	—	—	
15. the personal emotional impact of the work	—	—	—	—	
16. concerns for personal health eg physical exhaustion	—	—	—	—	
17. ease of travel to work	—	—	—	—	
18. uncertainty of what to do	—	—	—	—	
19. filling in forms, reports, diaries	—	—	—	—	
20. low salary	—	—	—	—	
21. meetings with supervisors	—	—	—	—	
22. conflict of work with family or personal demands	—	—	—	—	
23. the organisations rules and regulations	—	—	—	—	
24. concerns for personal safety eg physical danger	—	—	—	—	

client-related stress

	1	2	3	4
1. general poor health	—	—	—	—
2. a refusal to take medication	—	—	—	—
3. violent behaviour (to self, others or property)	—	—	—	—
4. unpleasant habits eg loudness, night wandering, anti-social	—	—	—	—
5. unwillingness to live up to potential abilities	—	—	—	—
6. low level of self care eg poor hygiene, toileting	—	—	—	—
7. difficulties with independent mobility	—	—	—	—
8. reckless carelessness	—	—	—	—
9. an inability to be left unattended or unsupervised	—	—	—	—
10. a lack of basic social skills	—	—	—	—
11. emotional immaturity	—	—	—	—
12. poor communication skills	—	—	—	—

STRICTLY CONFIDENTIAL

Code No: _____

Please indicate by circling the appropriate number which of the following you have used to help you deal with any difficulties you may have experienced.

	never 1	rarely 2	sometimes 3	often 4
1. I daydream or imagine a better time or place than this one	—	—	—	—
2. I draw on my past experiences	—	—	—	—
3. I think up a couple of different solutions to problems	—	—	—	—
4. I wish that I could change how I feel	—	—	—	—
5. I try to come out of the experiences better than when I went in	—	—	—	—
6. I wish that I could change what has happened	—	—	—	—
7. I try to analyse the situation in order to understand it better	—	—	—	—
8. I usually know what has to be done so I keep up my efforts to make things work	—	—	—	—
9. I take it out on other people	—	—	—	—
10. I avoid being with people in general	—	—	—	—
11. I have fantasies or wishes about how things might turn out	—	—	—	—
12. I stand my ground and fight for what I want	—	—	—	—
13. I wish that the situation would go away or somehow be over with	—	—	—	—
14. I make a plan of action and follow it	—	—	—	—

STRICTLY CONFIDENTIAL

QUESTIONNAIRE

Read the following questions and each of the four possible answers. Decide which answer is the **best** response to the question. Sometimes more than one answer may be correct in certain situations, however you should select the **best** answer or that which is most **generally** true. Place a tick beside that answer.

1. Desirable and Undesirable behaviour are most alike in that they are:-
 - a. The result of emotions and feelings
 - b. Habits and therefore difficult to change
 - c. Ways a person uses to express themselves
 - d. The results of learning
2. Probably the most important ideas to keep in mind when first changing behavior is:-
 - a. To use both reward and punishment
 - b. To reward every time the behaviour occurs
 - c. To be flexible about whether you should reward
 - d. To be sure the person understands why you want the behaviour to change
3. When should a person who is just learning to dress herself be praised for the first time?
 - a. When she gets her hand into the sleeve
 - b. When she gets her cardigan completely on
 - c. When she asks to do it herself
 - d. When she has completely finished dressing herself
4. Three of the following responses refer to forms of punishment which are mild and effective. Which one is not?
 - a. Ignoring the undesirable behaviour
 - b. Sending someone to a dull room for a few minutes
 - c. Taking away something the person likes
 - d. Shouting at the person
5. Which of the following is the most effective form of punishment in the long run for reducing a person's undesirable behaviour?
 - a. Scolding him every time he does it
 - b. Occasionally shouting at him when he does it
 - c. Sending him to his room for five minutes every time he does it
 - d. Sending him to his room all afternoon every time he does it
6. If a person gradually receives rewards less and less often for a behaviour, what is most likely to happen?
 - a. She will stop the behaviour
 - b. She will be more likely to behave in that way for a long time
 - c. She will not trust the person giving the rewards
 - d. None of the above
7. To record, graph and note the direction of the change of the behaviour is:-
 - a. A minor optional step in a behaviour change programme
 - b. An important step in a behaviour change programme
 - c. A procedure only employed by psychologists for research purposes
 - d. Time consuming and complicated, and should only be used in special cases

8. A major problem has been getting John to bed in the evening. Care staff have decided to change this and want to measure the relevant behaviours. Which is the best way for them to do this?
- Each evening, record whether or not he goes to bed on time.
 - Chart his behaviour all day long, up to and including bedtime to try to find out what causes his not wanting to go to bed.
 - Each week, make a note of how easy or difficult it has been to get him to bed.
 - Ask John to keep his own record each week of how easy or difficult it has been to go to bed.
9. The first step in changing a problem behaviour is to:-
- Reward the person when they are behaving nicely.
 - Punish the person for misbehaviour.
 - Carefully observe the behaviour.
 - Seek help from a psychologist.
10. In changing a behaviour it is most important to use:-
- Methods which have been tested by others.
 - Consequences which are rewarding to the person.
 - Consequences which are punitive to the person.
 - Rewards which do not bribe the person.
11. Jane is doing a number of things that greatly disturb her carers. It would be best for them to:-
- Try to quickly eliminate all of these undesirable behaviours at once.
 - Select just a few behaviours to deal with at first.
 - Select the single behaviour they find most disruptive and concentrate on changing that.
 - Wait for about a month before beginning to try to change her behaviour to make certain that they are stable and persistent.
12. If you want to make a behaviour a long lasting habit, you should:-
- Reward it every time.
 - First reward it every time and then reward it occasionally.
 - Promise something that the person wants very much.
 - Give several reasons why it is important and remind the person of the reasons often.
13. Which of the following is probably most important in helping a person behave in desirable ways?
- To teach him the importance of self discipline.
 - To help him understand right and wrong.
 - Providing consistent consequences for his behaviour.
 - Understanding his moods and feelings as a unique person.
14. How often a behaviour occurs is probably mostly controlled by:-
- The person's attitude about her behaviour.
 - What happens to her at same time the behaviour occurs.
 - What happens to her just before the behaviour occurs.
 - What happens to her just after the behaviour occurs.

STRICTLY CONFIDENTIAL

Please answer each question by putting a circle around the 'YES' or 'NO' following the question. There are no right or wrong answers and no 'trick' questions. Work quickly and do not think too long about the exact meaning of the questions.

PLEASE REMEMBER TO ANSWER EACH QUESTION

1	Does your mood go up and down?	YES NO
2	Do you take too much notice of what people think?	YES NO
3	Are you a talkative person?	YES NO
4	If you say you will do something, do you always keep your promise no matter how inconvenient it might be?	YES NO
5	Do you ever feel 'just miserable' for no reason?	YES NO
6	Would being in debt worry you?	YES NO
7	Are you rather lively?	YES NO
8	Were you ever greedy by helping yourself to more than your fair share of anything?	YES NO
9	Are you an irritable person?	YES NO
10	Would you take drugs which may have strange or dangerous effects?	YES NO
11	Do you enjoy meeting new people?	YES NO
12	Have you ever blamed someone for doing something you knew was really your fault?	YES NO
13	Are your feelings easily hurt?	YES NO
14	Do you prefer to go your own way rather than act by the rules?	YES NO
15	Can you usually let yourself go and enjoy yourself at a lively party?	YES NO
16	Are all your habits good and desirable ones?	YES NO
17	Do you often feel 'fed up'?	YES NO
18	Do good manners and cleanliness matter much to you?	YES NO
19	Do you usually take the initiative in making new friends?	YES NO
20	Have you ever taken anything (even a pin or button) that belonged to someone else?	YES NO
21	Would you call yourself a nervous person?	YES NO
22	Do you think marriage is old-fashioned and should be done away with?	YES NO
23	Can you easily get some life into a rather dull party?	YES NO
24	Have you ever broken or lost something belonging to someone else?	YES NO
25	Are you a worrier?	YES NO
26	Do you enjoy cooperating with others?	YES NO
27	Do you tend to keep in the background on social occasions?	YES NO
28	Does it worry you if you know there are mistakes in your work?	YES NO
29	Have you ever said anything bad or nasty about anyone?	YES NO
30	Would you call yourself tense or 'highly-strung'?	YES NO
31	Do you think people spend too much time safeguarding their future with savings and insurance?	YES NO
32	Do you like mixing with people?	YES NO
33	As a child were you ever cheeky to your parents?	YES NO
34	Do you worry too long after an embarrassing experience?	YES NO
35	Do you try not to be rude to people?	YES NO
36	Do you like plenty of bustle and excitement about you?	YES NO
37	Have you ever cheated at a game?	YES NO
38	Do you suffer from nerves?	YES NO
39	Would you like other people to be afraid of you?	YES NO
40	Have you ever taken advantage of someone?	YES NO
41	Are you mostly quiet when you are with other people?	YES NO
42	Do you often feel lonely?	YES NO
43	Is it better to follow society's rules than go your own way?	YES NO
44	Do other people think of you as being very lively?	YES NO
45	Do you always practice what you preach?	YES NO
46	Are you often troubled about feelings of guilt?	YES NO
47	Do you sometimes put off until tomorrow what you ought to do today?	YES NO
48	Can you get a party going?	YES NO

PLEASE CHECK THAT YOU HAVE ANSWERED ALL THE QUESTIONS

THE GENERAL HEALTH QUESTIONNAIRE

GHQ 28- David Goldberg

Please read this carefully.

We should like to know if you have had any medial 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 rundown 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	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

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 the 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				
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	

Self Assessment Form

Code No:

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

Please complete this after you have been involved in an incident when a service user has been physically aggressive towards you.

	No, never	Yes, but Infrequently	Yes frequently	Yes, very frequently
SHOCKED	0	1	2	3
BETRAYED	0	1	2	3
GUILTY	0	1	2	3
HOPELESS	0	1	2	3
AFRAID	0	1	2	3
ANGRY	0	1	2	3
INCOMPETENT	0	1	2	3
SAD	0	1	2	3
FRUSTRATED	0	1	2	3
HELPLESS	0	1	2	3
DISGUSTED	0	1	2	3
NERVOUS	0	1	2	3
RESIGNED	0	1	2	3
FRIGHTENED	0	1	2	3
HUMILIATED	0	1	2	3