

Doctoral Thesis

Stress, appraisals, and well-being of staff working with adults with intellectual disabilities
and challenging behaviour

Nicola Brame

Primary supervisor: Professor David Peck

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Abstract

Aim This study undertook a preliminary investigation of the staff well-being model with support staff working with adults with intellectual disabilities and challenging behaviour. The staff well-being model was conceptualised from Lawton et al.'s (1991) two-factor model of caregiving appraisal and psychological well-being, Lazarus and Folkman's (1984) transactional model of stress, and research literature investigating staff stress and burnout. The proposed staff well-being model was used to explore hypothesised relationships between staff stressors, resources, appraisals, and outcome.

Method A cross-sectional online survey was completed by 47 support staff working in intellectual disability community services, with non-parametric tests of means and correlational analysis undertaken to explore nine relationships. Appraisals of emotional exhaustion and personal accomplishment, measured by the Maslach Burnout Inventory, were compared with staff perceptions of intellectual disability, challenging behaviour, and organisational demands (stressors), organisational support, social support, wishful thinking, and practical coping (resources), positive feelings and negative feelings (outcomes).

Results Five significant relationships were found ($p < .001$). Appraisals of emotional exhaustion were positively associated with organisational demands, wishful thinking coping, and negative feelings, and negatively associated with organisational support. Appraisals of personal accomplishment were positively associated with positive feelings.

Conclusions This preliminary exploration of the staff well-being model found five significant relationships between staff stressors, resources, appraisals and outcome. The results are discussed in light of the methodological limitations of this study including the

small sample size, multiple comparisons and correlational design. Further exploration of the model is suggested in light of its explicit conceptualisation from theories of stress, appraisal and well-being, with the potential for structural equation modelling to be undertaken with a larger sample.

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Finally, I would like to dedicate this thesis to the memory of my friend Danny Lynham (1982-2012), a real scientist who affectionately teased me and sadly won't get to see me finally finish being a student.

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Chapter 1: Introduction

1.1. Chapter Introduction

This chapter introduces the reader to what a clinical psychologist might need to know about the system surrounding an individual with intellectual disabilities and challenging behaviour supported by a community service. After a brief exploration of historical perspectives, current definitions of intellectual disability and challenging behaviour are provided with information about current social care provision. The focus then turns to exploring the role of support staff and research literature investigating core constructs of staff who support adults with intellectual disabilities. Current understanding about staff well-being is provided through a brief description of stress and work stress theory and a systematic literature review of research conducted into staff burnout. A lack of theory driven hypothesis testing research in this area is identified and a theoretical model of caregiving appraisal and psychological well-being used in other populations described. The final section of the chapter looks at how this theoretical model may be applied to investigate intellectual disability staff stress, appraisals and well-being.

1.2. The Role of Clinical Psychologists in Intellectual Disability Services

Clinical psychologists undertaking assessment or intervention with individuals with intellectual disabilities are required to think systemically about all the factors in the individual's environment and the interaction between these. As shown in Figure 1.1, a clinical psychologist would try to understand the individual in their immediate environment, in this example a residential service. Thinking about the individual's interactions with staff, service users, and family, and interrelations between the staff, service users, and family. With recognition that residential services are commissioned by care managers in local authority social services, according to Government policy and legislation on social care and influenced by society and economics.

The system must be viewed as a whole, with a problem at one level impacting on others. It is necessary to understand how an intervention undertaken with an individual must be considered within the staff team and community service. Furthermore a clinical psychologist might undertake interventions at the level of the staff team to make sense of or improve interactions between staff and an individual, or within the staff team and service.

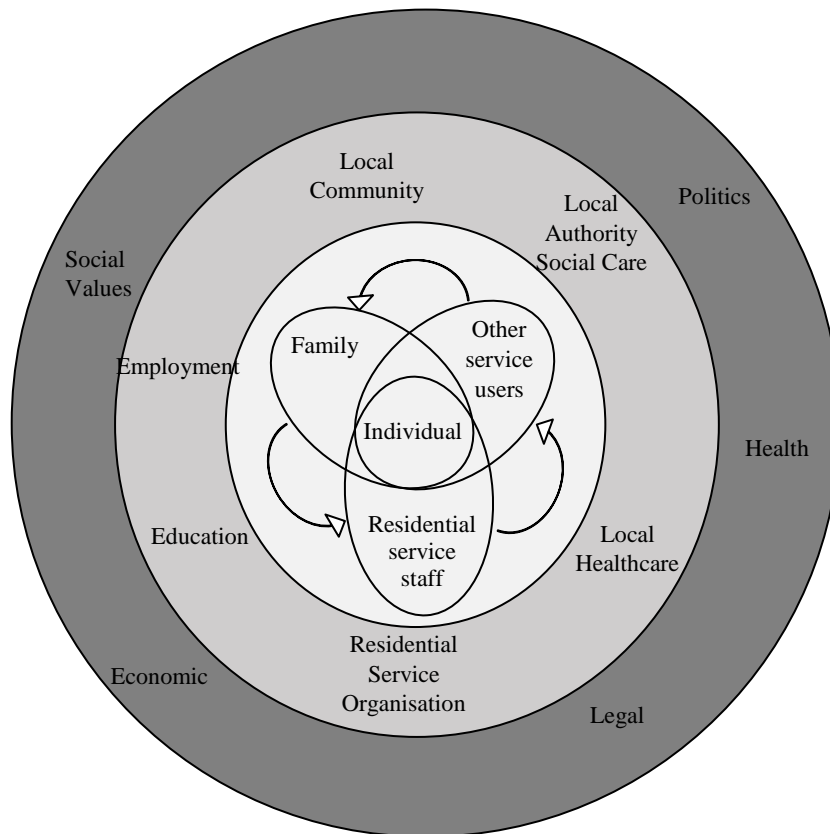


Figure 1.1. Systemic factors for an individual living in a residential service.

This study is focussing on the staff, specifically the psychological well-being of staff who support adults with intellectual disabilities and challenging behaviour in community services. Understanding concepts of stress and burnout can help clinical psychologists to develop and implement interventions to reduce distress. It could be hypothesised that interventions at this level of the system could improve staff interrelations and interactions with services users.

1.3. Adults with Intellectual Disabilities and Challenging Behaviour.

The concepts of ‘intellectual disability’ and ‘challenging behaviour’ have developed over time. Both terms are socially constructed and have changed with society alongside legal, political and medical perspectives. A brief insight into the history of these terms can aid our understanding of present day perspectives (for a detailed inspection see Wright & Digby, 1996).

1.3.1. Historical perspective on intellectual disability and community services. In medieval times the Crown had the responsibility for protecting the person and property of ‘fools’ and ‘idiots,’ who were understood to have irrecoverable conditions that disabled them from birth (Neugebauer, 1996). Originally linked with profit, the welfare aspect significantly expanded during the 17th and 18th century through the Poor Law, with parishes paying relatives or nurse/landlords to care for those described as ‘innocent,’ ‘natural’ and ‘simple’ (Andrews, 1996; Rushton, 1996). In Victorian England there was increasing reference to scholastic attainment with families conceptualising deficiencies with their children and attempting to impart basic knowledge and skills (Wright, 1996). Under the Lunatics Amendment Act the legal definition of ‘insane’ included ‘idiots’ and ‘imbeciles,’ people could be labelled with Certificates of Insanity, and families sought asylum care due to issues of poverty (Wright, 1996).

Five voluntary institutions emphasising moral training, task-centred learning, health, and habits of discipline, were created from the 1840s by the Charity for the Asylum for Idiots (Gladstone, 1996). By 1881, 3% of the estimated 29,542 ‘idiot’ inmates of institutions were in special ‘idiot’ asylums, with increasing interest in containment. Concern for the cause and symptoms of ‘feeble-mindedness’ grew, with perception of ‘mental defectives’ as a burden to society and a criminal and genetic threat (Jackson, 1996). The 1913 Mental Deficiency Act

empowered the state to detain ‘mental defectives’ and economic pressure forced families to find statutory care through guardianships (Thomson, 1996).

The introduction of the National Health Service in 1948 meant institutions became hospitals and the detained became ‘patients with health problems’ (Gone, Hatton & Caine, 2012). In the 1950s 60-64,000 people were living in long-stay hospitals (Felce, 1996a), with 100,000 under the care and control of the Mental Deficiency Act (Tredgold, 1952, as cited by Race, 2002). After eugenic ideas were discredited, *The Seebohm Report* (Seebohm, 1968) recommended social services departments were set up in local authorities (Donnison, 1969). The White Paper, *Better services for the mentally handicapped* (Department of Health and Social Security, 1971) subsequently suggested the development of community-based services (Gone et al., 2012).

Government committees were set up after scandals of institutional abuse and ideas of ‘normalisation’ led to the publication of *An Ordinary Life* (King’s Fund, 1980) describing people living in ordinary homes, in ordinary houses, in ordinary streets, and using ordinary facilities (Thomas & Woods, 2003). Normalisation was the way people were treated, talked to, called, activities they had access to, and the building people lived in; it was not giving treatment, trying to change the individuals, or making people normal (Thomas & Woods, 2003). Residential, day and family support services increased through the 1980s and 1990s (Gone et al., 2012), and the last long-stay ‘mental handicap’ hospital, Orchard Hill, closed in May 2009 (Sutton Guardian, 2009). The White Papers *Valuing People* (Department of Health, 2001) and *Valuing People Now* (Department of Health, 2009) identified how people with learning disabilities should have the same rights, choices, dignity, respect, chances, responsibilities and hopes as everyone else. Community intellectual disability teams were outlined to provide support to social care providers: to embed principles of personalisation

and offer interventions and training with paid and family carers of people with intellectual disabilities (Department of Health, 2008, 2010).

At present, the review *Transforming care: A national response to Winterbourne View Hospital* (Department of Health, 2012) recognises how staff whose job it is to care for and help people can instead mistreat, neglect and abuse; highlighting continuing weaknesses in how adults with intellectual disabilities and challenging behaviours are cared for.

1.3.2. Intellectual disability. The World Health Organisation (2010), American Psychiatric Association (2013) and American Association for Mental Retardation (Luckasson et al., 2002) specify different diagnostic criteria and classification of intellectual disability (the term learning disability is used outside of academia). Three core criteria must be met for a person to be considered to have an intellectual disability: significant impairment of intellectual functioning, significant impairment of adaptive/social functioning, and age of onset before adulthood (Ball, Bush & Emerson, 2004).

Level of intellectual functioning is based on the normal distribution of general intelligence and tested through psychometric assessment. Significant impairment would be defined as performance on the assessment more than two standard deviations below the population mean (British Psychological Society, 2000). Level of adaptive/social functioning impairment is determined through comparison of the person with the standards expected for the person's age by cultural group. Included in this comparison are: communication, self-care, home living, social-interpersonal skills, use of community resources, self-direction, functional academic skills, work, leisure, and health and safety (American Psychiatric Association, 2013). Describing limitations within these areas helps to develop a profile of the support a person might need, with the belief that limitations often coexist with strengths, and appropriate support over time will improve life functioning (Luckasson et al., 2002). The International Classification of Diseases-10 (ICD 10, World Health Organisation, 2010)

classifies four levels of intellectual disability: Mild, moderate, severe, and profound. These are shown in Table 1.1 and are classified by intelligence quotient (IQ) and the support an individual requires.

Table 1.1

Classification of intellectual disability in ICD-10 (World Health Organisation, 2010)

| Category of Intellectual Disability | Mild | Moderate | Severe | Profound |
|-------------------------------------|--|--|---|--|
| IQ | 50 - 69 | 35 - 49 | 20 - 34 | Below 20 |
| Support as adults | Able to work, maintain good social relationships and contribute to society | Need varying degrees of support to live in the community | Likely to result in continuous need for support | Severe limitation in self-care, continence, communication and mobility |

Note: IQ = Intelligence Quotient.

The prevalence of intellectual disability in community populations is between 1% and 3%: with 85% classified as mild, 10% moderate, 3% to 4% severe, and 1% profound (American Psychiatric Association, 2013). The number of adults with intellectual disabilities in England was recently estimated as 908,000, with 22% of these known to intellectual disability services (Emerson et al., 2012). Prevalence rates for mental illness in people with intellectual disability were found to be higher than the general population at 35.2% to 40.9% depending on diagnostic criteria (Cooper et al., 2007). The prevalence of challenging behaviour has been identified as between 6% and 10% (Emerson et al., 2001; Kiernan & Qureshi, 1993; Lowe et al., 2007).

1.3.3. Challenging behaviour. Challenging behaviours are recognised as behaviours that *challenge* services, as opposed to the appearance of psychopathological processes (Felce & Emerson, 1996). A good definition is:

Behaviour can be described as challenging when it is of such intensity, frequency or duration as to threaten the quality of life and/or the physical safety of the individual or others, and is likely to lead to responses that are restrictive, aversive or result in

exclusion. (Royal College of Psychiatrists, British Psychological Society, and Royal College of Speech and Language Therapists, 2007, p. 14).

Challenging behaviour is difficult to define due to the breadth of behaviours that can be termed challenging. Emerson and Einfield (2011), combined the results of prevalence studies for challenging behaviours and reported rates of *physical aggression* at 2.1%, *self-injury* 1.3%, *property destruction* 1.3%, and 3.4% for *other* forms of challenging behaviour. These *other* behaviours include generalized noncompliance, temper tantrums, repetitive pestering, screaming, and stealing. Behaviours termed aggressive include hitting others with hands or objects, verbal aggression and cruelty. Self-injurious behaviour covers hitting body with hand or against objects, scratching or pinching self, and hair pulling. A recent total population screening study found an indication of co-morbid psychiatric disorders in 17% of adults with intellectual disabilities and challenging behaviour (Allen, Lowe, Matthews, & Anness, 2012).

People with intellectual disabilities showing challenging behaviours have a greater likelihood of being placed into a residential care service (Hastings, 1997). Staff working with clients who show challenging behaviour have been found to be more anxious, feel less supported, to have lower job satisfaction, and report stronger emotional reactions and make more critical remarks towards clients (Jenkins, Rose & Lovell, 1997; Weigel, Langdon, Collins & O'Brien., 2006). The quality of support offered in services to people with challenging behaviour has been described as inadequate, with low levels of staff engagement and high levels of service user inactivity (Carnaby, Roberts, Lang, & Nielsen, 2010).

Individuals showing challenging behaviours are also at greater risk of abuse by care givers and are less likely to receive effective psychological support (Emerson, 2001), with high levels of antipsychotic prescriptions for behavioural problems not related to mental disorder (Okorie & Connaughton, 2011) and an overreliance on restraint (Jones, 2013).

1.3.4. Intellectual disability social care provision. The majority of adults with learning disabilities do not use social services (Emerson et al., 2012). Depending on need,

local authorities may provide adults with intellectual disabilities with social care packages including accommodation, community services, home care, and professional support, or they can provide direct payments and personal budgets. The most common form of accommodation in 2010/2011 of the 138,995 people with intellectual disabilities known to local authorities was living permanently with family or friends (29%), followed by registered care homes (16.9%), supported accommodation/supported group homes (12.7%), and some form of tenancy (12.5%, Emerson et al., 2011).

In 2011/2012 independent sector residential care was the most common form of residential support for adults with intellectual disabilities (31,960 adults), with a smaller number in adult placements (3,960), local authority staffed residential homes (2,315), or nursing care (2,035, Emerson et al., 2012). Adults with learning disabilities using local authority community services numbered 113,505, with 51,710 adults using day services.

1.4. Supporting Adults with Intellectual Disabilities in Community Services.

Support staff within community services have a range of responsibilities. Research studies have been conducted to investigate hypothesised links between staff variables and staff behaviour.

1.4.1. The role of staff who support adults with intellectual disabilities. Support staff are responsible for translating national and organisational policies into practical day to day support for adults with intellectual disabilities. Staff working in community services are required to support adults with intellectual disabilities depending on their individual care plan, which details personal needs and wants. This may be with independent living skills of personal care, administering medication, cooking, cleaning, and undertaking hobbies within the home, and community activities such as study activities, paid or voluntary work, entertainment, leisure and shopping. Staff may support one or many individuals at once, and they may work alone or in large teams undertaking irregular shift patterns over a 24-hour

period. Alongside this the staff are required to undertake administrative tasks of record keeping and report writing, and organisational tasks of health and safety, training, meetings and supervision.

Windley and Chapman (2010), using a qualitative approach, reported the perceptions of support workers working with adults with intellectual disabilities. Staff reported wanting to maximise service user quality of life with access to meaningful activities, improving skill levels and autonomy. Being caring, empathic and having a good relationship with service users was considered important for effective support. Role conflict was identified within teams, with requests for managers to be more proactive, and staff reported stressors of the job impacting on home life and sense of well-being. Windley and Chapman (2010) highlighted how support worker skills were often developed through trial and error, and how staff may not be equipped to explain the reason behind their practice or challenge poor practice. Training which facilitated personal skill development like assertiveness, communication skills, stress and time management were felt to be life skills that could be practiced in and outside of work to enable staff coping strategies to be more effective and transferable (Windley and Chapman, 2010).

1.4.2. Research conducted with support staff. A diverse range of research has been conducted with staff supporting adults with intellectual disabilities. The core constructs of staff research identified by Hatton, Rose and Rose (2004) and some hypothesised links between them are shown in Figure 1.2. Firstly, it is hypothesised that staff behaviour has a direct impact on people with intellectual disabilities through interactions between them. Secondly, it is hypothesised that staff behaviour has an indirect impact on people with intellectual disabilities through factors like absenteeism and turnover that affect an organisation's ability to deliver support packages. Thirdly, it is hypothesised that staff behaviour is influenced by 1) service user variables of characteristics and behaviour, and the

cognitive and emotional staff reactions to these, 2) organisation variables of resources, support, and salary, and 3) staff variables of skills, values, morale and well-being, and other characteristics (Hatton et al., 2004).

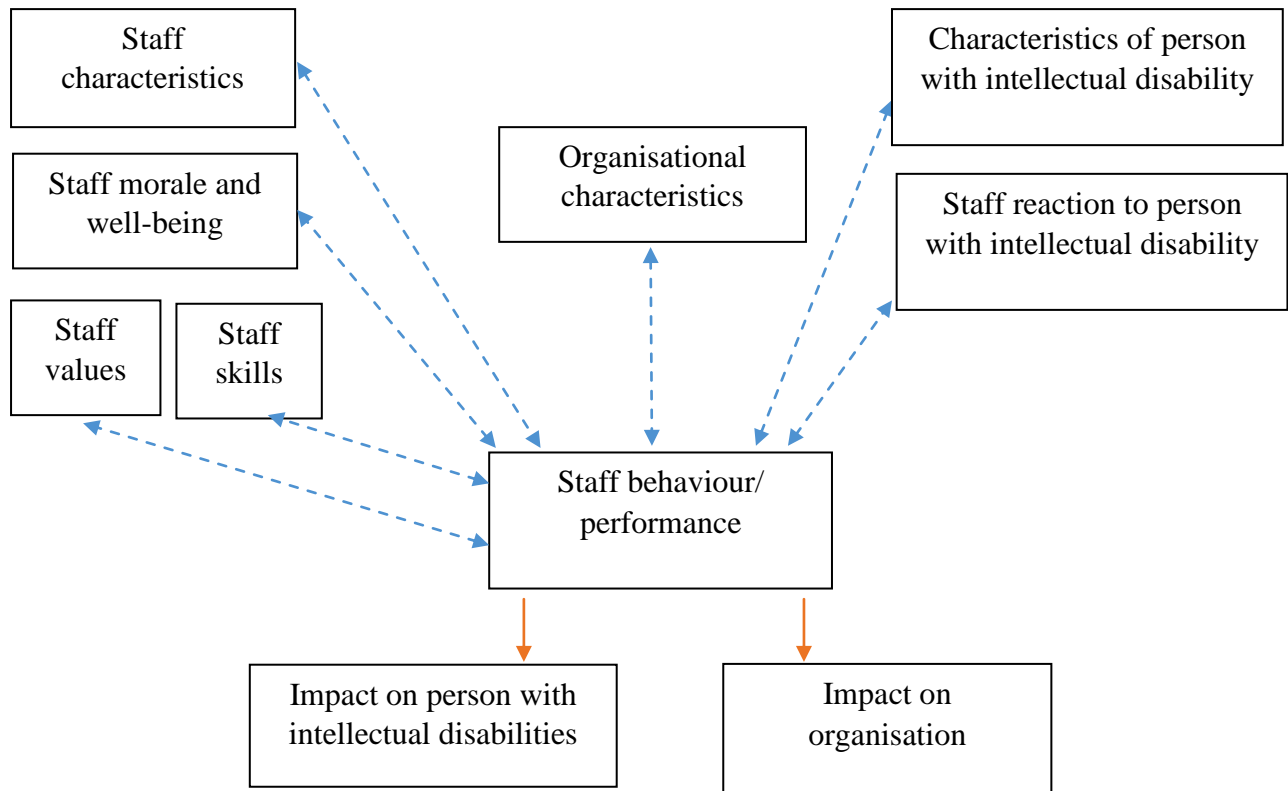


Figure 1.2. Core constructs of staff research and hypothesised links between them (Hatton, Rose & Rose, 2004).

Weiner's (1980, 1985) cognitive (attribution) – emotion – action model of motivated behaviour has been used extensively to explore staff attributions, emotional reactions, and propensity to help clients with intellectual disabilities and challenging behaviour (Bailey, Hare, Hatton, & Limb, 2006; Dagnan, 2012; Hastings, Tombs, Monzani, & Boulton, 2003; Lucas, Collins, & Langdon, 2009; Noone, Jones, & Hastings, 2006; Stanley & Standen, 2000; Wanless & Jahoda, 2002; Weigel et al., 2006). There is some evidence that training can lead to change in staff cognitive variables, with a key aspect of this the development of a formulation of specific client behaviour (Williams, Dagnan, Rodgers, & McDowell, 2012).

Research literature investigating Weiner's theory has been described as 'inconsistent' and criticised for the varied and limited methodologies used (Willner & Smith, 2008). In particular, the use of vignette methodology has been criticised, with significant differences found between staff responses to real and hypothetical scenarios depicting challenging behaviour (Lucas, Collins, & Langdon, 2009; Wanless & Jahoda, 2002). After reviewing the literature on attribution theory applied to helping behaviour, Willner and Smith (2008) advised that alternative theoretical approaches could be used for understanding helping behaviour through staff coping styles, staff training, job satisfaction and burnout.

The area of focus in this study is the third hypothesised framework for researching staff behaviour looking at the influence of service user variables, organisational variables, and staff variables. This study is not intended to directly investigate problem staff behaviour and its aetiology. The study will instead explore the staff variable of 'well-being' through theories of stress and burnout. In staff research literature the words *stress* and *burnout* are often used in combination without a clear explanation of what the terms represent. Maslach (1982), a leader in the research of burnout, described *burnout* as one type of job *stress*. A brief description of stress and work stress theory in relation to staff in intellectual disability services will be given, before a systematic review of the research literature on burnout.

1.5. Stress.

The word stress can be used in a number of different ways. It may signify something that puts someone under pressure, as in a stressor, seen as a stimulus or input in a particular situation (Grimshaw, 1999). It can also describe the outcome of that pressure causing us strain, potentially leading to symptoms of anxiety or low mood. Therefore pressure is normal, unavoidable, a motivator to get us to complete tasks, learn new skills, seek excitement and achievement. The pressure though could be too much to manage leading to strain, negative emotional consequences, and less capacity to complete tasks to the best of our ability.

Cordes and Dougherty (1993) cite the work of McGrath (1976) and Schuler (1980) in their conceptualisation of job stress, and consequently burnout, as a type of stress. Stress is defined as ‘a dynamic condition in which an individual is confronted with an opportunity, constraint, or demand on being/having/doing what one desires and for which resolution is perceived to have uncertainty but which will lead to important outcomes’ Cordes and Dougherty (1993, pp. 625). Burnout is described as a particular type of job stress in which a pattern of strains results from a variety of work demands, notably interpersonal stressors (Cordes and Dougherty, 1993).

The terms stress and burnout are often used interchangeably within intellectual disability research. Hastings, Horne and Mitchell. (2004) and Skirrow and Hatton (2007) elaborate suggesting that burnout can be understood as a process in which initial feelings of stress lead to longer-term feelings of fatigue or exhaustion and finally to attitudinal and behavioural change. Rose (2009) identified that with staff the wider area of psychological well-being is usually encompassed within the word ‘stress,’ whilst ‘burnout’ is used to describe specific outcome measures used in intellectual disability research. Burnout as a measure supports investigations of the long-term impact of stress on staff as it incorporates aspects of emotional, behavioural and attitudinal change (Hastings et al., 2004).

Hodgkins, Rose and Rose (2005) provided staff with space to discuss difficulties they faced in their jobs. Recurring themes across services were: excessive work pressure, demands of new initiatives and the implementation of person-centred planning, lack of communication between staff and management, challenging behaviour of some residents, poor support during and after incidents of challenging behaviour, and relationships between staff and clients’ relatives (Hodgkins et al., 2005). Rose, Jones and Fletcher (1998) report that staff in ‘high stress’ homes with higher levels of challenging behaviour have fewer positive interactions with clients than staff in ‘low stress’ homes, though Rose & Rose (2005) found high stress

levels were not found to relate to staff thoughts and feelings about propensity to help clients with challenging behaviours.

It would be interesting to explore how this process of stress, as an input and an output, has been approached within staff research, and to think about how this might be relevant to a clinical psychologist working within intellectual disability services. With this in mind the next section will explore what theoretical models have been put forward to help understand stress and how it affects staff.

1.5.1. Models of work stress used to understand staff stress. Devereux, Hastings and Noone., (2009) reviewed work stress theories applied to research staff burnout and found the research offered only limited support for the predictions derived from those theories.

1.5.1.1. Personal environment. The person-environment theory proposes a discrepancy between staff needs or abilities and their working environment causing role overload, role ambiguity and role conflict, leading to burnout. In support of this, Hatton, Rivers et al. (1999) found that a greater difference between real and ideal organizational culture was associated with greater job strain, alienation from the organisation, intention to leave and reduced work satisfaction. Staff experiencing high levels of burnout were found to be more likely to be absent or leave their employment (Rose, 1995), with Hatton and Emerson (1998) reporting actual turnover associated with satisfaction with public respect for the job and practical support from supervisors.

1.5.1.2. Demand-support. The demand-support-constraint model (Payne, 1978, as cited by Rose, Jones & Fletcher, 1998) proposes there is a greater risk of staff stress when job demand is high and staff perceive job control and support as low. Rose et al. (1998) investigated how changing the working environment can have a direct impact on psychological well-being by conducting focused, assessment-based stress management programmes. Staff anxiety was found to be significantly reduced in the intervention group

compared with the control, but the effect size was not significant through the small sample size lacking power (Rose et al., 2008).

1.5.1.3. Cognitive behavioural. Staff stress has been examined within cognitive behavioural theory and the Lazarus and Folkman (1984) model of stress, appraisal and coping. The theory proposes that the relationship between potential stressors and their outcome is not direct. Instead, people make primary appraisals about whether the stressful situation is a threat or a challenge. Appraisals are believed to be influenced by environmental variables such as demands, constraints, opportunity, and culture, and by personal variables like goals, beliefs about self and world, and personal resources (Lazarus, 1999). If a person does not think they have the resources to change the stressful situation they may appraise it to be a threat, however if the person thinks they have the resources to improve the situation they may appraise it to be a challenge.

Subsequently secondary appraisals are made. Secondary appraisals are described as a cognitive-evaluative process that focuses on what can be done to cope with the stressful person-environment relationship (Lazarus, 1999). People are thought to use different coping strategies depending on primary appraisals: either problem-focused coping associated with challenges and positive outcomes, or emotion-focused coping associated with appraisals of threat and negative outcomes. Stressful situations, appraisals and coping strategies can all influence one another and change over time, so the process is termed transactional and dynamic (Lazarus & Folkman, 1984).

Challenging behaviour, the emotional impact of work, conflict of work with personal or family demands, uncertainty around job tasks and limited opportunities for personal advancement have all been identified as staff stressors (Hatton, Brown, Caine, & Emerson, 1995). Emotion-focused coping strategies (e.g. wishful thinking) are associated with higher levels of staff burnout, and have been reported to mediate the relationship between work

demands and level of burnout (Hatton et al., 1995; Hatton, Emerson et al., 1999; Mitchell & Hastings, 2001). Howard, Rose and Levenson (2009) suggested staff's self-efficacy or perception of their ability to manage challenging behaviour may mediate between the stressor and burnout. No difference was found between level of burnout in groups of staff in residential community settings with low levels of challenging behaviour and staff in secure settings with high levels of challenging behaviours, but staff in secure settings reported higher levels of self-efficacy in comparison to community settings (Howard et al., 2009).

1.5.1.4. Emotional overload. Similarly the emotional overload theory suggests job demands and interpersonal demands of staff-client relationships overload emotional resources leading to burnout. Associations have been found between job demands of challenging behaviour and low levels of organisational support with greater emotional reactions and anxiety (Jenkins et al., 1997; Weigel et al., 2006).

1.5.1.5. Equity. Equity theory and social-exchange theory propose that staff perception of inequity within staff-client relationships can lead to burnout when staff do not receive expected rewards compared with the effort they put into the relationship. Schaufeli, Van derendonck, and Van Gorp (1996) found that staff who invest more into their relationship with clients, and their relationship with their organization, than they received back were more likely to report symptoms of burnout. Disley, Hatton, and Dagnan (2009) reviewed the intellectual disability staff research literature and found six studies where staff felt under-benefitted in their relationships with service users, with these perceptions associated with outcomes of burnout, absenteeism and intention to leave.

1.5.1.6. Summary. Devereux, Hastings and Noone (2009) identify three common themes through these five work stress theories: jobs exert pressure on workers, workers draw upon resources to meet the demands, and there is a cognitive process that interacts between these. Overall intellectual disability research conducted using these five work stress theories

have offered limited support, with Devereux, Hastings and Noone (2009) criticising a lack of clarity about how research questions and hypotheses have been drawn from each theoretical model. Another criticism was the lack of research into positive outcomes of stressful events as found by Folkman (1997) with caregivers, with evidence of staff positive perceptions of intellectual disabilities (Bell & Espie, 2002; Hastings & Horne, 2004) not explored further. The limited support for these theories hinders the development of clinical interventions to reduce staff stress and burnout, with future focus directed at interventions directed at the organisation and support for staff, with potential techniques to enhance psychological resilience (Devereux, Hastings & Noone, 2009).

1.6. Burnout

Burnout. The word evokes images of a final flickering flame, of a charred and empty shell, of dying embers and cold, gray ashes.....All of them were once fired up about their involvement with other people – excited, full of energy, dedicated, willing to give tremendously of themselves for others. And they *did* give....and give, and give until finally there was nothing left to give anymore. The teapot was empty, the battery was drained, the circuit was overloaded – they had burned out. (Maslach, 1982, p. 3)

Burnout is described by Christina Maslach, one of the first psychologists to explore the phenomena, as “a syndrome of emotional exhaustion, depersonalization, and reduced personal accomplishment that can occur among individuals who do “people work” of some kind” (Maslach, 1982, p. 3). Maslach considered burnout to be one type of job stress, arising specifically from the social interaction between helper and recipient. In this sense burnout was a response of dealing with other people, particularly the chronic emotional strain of working with people who had difficulties (Maslach, 1982).

Maslach’s (1982) explorations into the syndrome identified how three factors of burnout might develop over time. A helper may become emotionally overinvolved with their recipients. Feeling overwhelmed by the emotional demands imposed by recipients onto them, could result in the first factor of burnout: emotional exhaustion. This may lead to the helper feeling unable to give anymore, withdrawing from involvement with recipients and detaching

themselves psychologically. When this detachment is balanced with genuine caring for recipients it can be an effective way to handle the emotional strain of the work. The detachment, however, may develop into cold and callous disregard for recipient's feelings and the second factor of burnout: depersonalization. The helper may begin to actively dislike the recipients, expecting the worst from them. A process of dehumanisation may occur leading a helper to verbally put recipients down or treat them unkindly. Helpers may fail to provide the appropriate care or service to recipients. Helper's behaviours may potentially become harmful, degrading and abusive. The helper's behaviour toward recipients may cause them to feel inadequate, guilty and a failure, leading to the third factor of burnout: reduced personal accomplishment.

Cordes and Dougherty (1993) describe burnout as a unique stress phenomenon with emotional exhaustion a traditional stress variable. Depersonalisation is identified as a new construct and the dimension of personal accomplishment was identified as related to concepts of self-efficacy. When conceptualised for intellectual disability staff emotional exhaustion and depersonalisation focus on relationships with or feelings towards service users, whilst personal accomplishment is a general satisfaction scale focussed on feelings about one's job (Rose, Horne, Rose, & Hastings, 2004). From a clinical psychologist's perspective it is of interest to find out what demands are associated with staff burnout in order to find out how interventions might reduce them.

1.6.1. Measuring burnout. The Maslach Burnout Inventory-Human Services Survey (MBI-HSS. Maslach et al., 1996) is considered the most established measure of burnout and has provided normative data for use in assessing burnout within services for adults with intellectual disabilities (Skirrow & Hatton, 2007). The measure consists of three subscales measuring emotional exhaustion (9 items), depersonalization (5 items) and personal accomplishment (8 items). It is completed by rating experience of each item on a 7-point

frequency scale (0 = never, up to 7 = everyday). Higher scores on each subscale relate to greater reported feelings of each construct, with high scores of emotional exhaustion and depersonalisation and low scores of personal accomplishment associated with burnout.

Hastings, Horne and Mitchell (2004) conducted a factor analysis on the MBI-HSS to consider how the three burnout dimensions of the measure applied specifically to the intellectual disability staff population compared with other human services workers. The three dimensions were found to have good construct validity with 19 out of 22 items loading above 0.4 on the appropriate factor and less than 0.4 on the other factors. Comparable with other populations of human services workers, the three dimensions were found to have fair to good levels of reliability as measured by Cronbach's alpha: emotional exhaustion $\alpha = 0.87$, depersonalisation $\alpha = 0.68$, and PA $\alpha = 0.76$ (Hastings et al., 2004). These findings suggest the MBI-HSS is a suitable tool to assess dimensions of burnout in staff working in intellectual disability services, and its continued popularity as a measure of burnout in this research field is reason for this one measure to be the target for a systematic literature review.

The MBI-HSS has been criticised on several grounds: being circular and restrictive in its ability to be tested with non-human service populations; an unclear relationship between the measure and the concept of burnout; containing a mixture of an individual state, coping strategy and an effect; using unacceptable Americanised questions that would not translate into other cultures; and not being in the public domain (Kristensen, Borritz, Villadsen & Christensen, 2005).

Kristensen et al. (2005) developed a new measure The Copenhagen Burnout Inventory (CBI) which has three sub-dimensions: personal burnout, work burnout, and client/customer burnout. This 19-item measure was developed for a large-scale project investigating burnout, motivation and job satisfaction in Denmark. The CBI was tested with

participants working in a psychiatric prison, social welfare offices, a general health hospital, a psychiatric hospital, institutions for the severely disabled, and home care services. The CBI has demonstrated satisfactory reliability and validity, with Cronbach's alphas reported between .85 and .87 and test-retest ability as .51 for all subscales (Kristensen et al., 2005). The CBI is used more frequently to measure burnout within intellectual disability staff populations in non-English speaking countries (recently Kozak et al., 2013; Lin & Lin, 2013).

1.6.2. How does burnout affect intellectual disability staff? Skirrow and Hatton (2007) investigated the levels of burnout of intellectual disability staff as measured by the MBI-HSS through a systematic literature review and meta-analytic comparison of the average scores found on the three dimensions. A detailed appraisal of the fourteen studies identified and their findings is provided in this review and therefore won't be replicated here. It is of interest, however, to see how burnout and intellectual staff variables had been investigated up to the point of the review (conducted in 2004). In particular, what significant and interesting non-significant results had been found (on any of the dimensions of burnout) and what conclusions could be drawn at that time.

Service user characteristics and burnout were investigated. Burnout was associated with coping responses and emotional reactions to challenging behaviour (Mitchell & Hastings, 2001), and with staff members perception of their relationship with service users (Van Dierendonck, Schaufeli, Buunk, 1996, as cited in Skirrow & Hatton, 2007). No relationship was found between burnout and level of service user disability or the presence of challenging behaviour (Chung & Corbett, 1998).

Organisational variables and burnout had been explored. Staff member's view of the organisation, feeling rewarded or in need of further support and training were associated with burnout (Blumenthal, Lavender, & Hewson, 1998; Chung & Corbett, 1998; Van Dierendonck et al., 1996). Both significant (Gill-Monte & Peiro, 1998) and non-significant associations

(Caton, Grossnickle, Cope, Long, & Mitchell, 1988, as cited in Skirrow & Hatton, 2007) were found between burnout and supervisory support. Differences between levels of burnout of staff in community-based and hospital-based services were also found to be significant (Aitken & Schloss, 1994; Chung & Corbett, 1998).

Burnout was found to be significantly associated with aspects of perceived job role, such as conflict, clarity, overload, insufficiency, ambiguity, boundary, and responsibility (Aitken & Schloss, 1994; Blumenthal et al., 1998; Gill-Monte & Peiro, 1998) and feeling under-utilized (Caton et al., 1988, as cited by Skirrow & Hatton, 2007). Perceived consultation with and social support from work colleagues was also significantly associated with burnout (Gill-Monte & Peiro, 1998). Differences between job role, education and qualifications and burnout produced significant (Aitken & Schloss, 1994; Chung & Corbett, 1998; Mitchell & Hastings, 2001) and non-significant results (Edwards & Miltenberger, 1991, as cited by Skirrow & Hatton, 2007).

Investigating staff well-being Aitken & Schloss (1994) reported moderate correlations between burnout and scores on specific measures of depression, anxiety, and psychological strain, and found significant negative associations between burnout and personal resources of recreation, self-care, social support, and coping strategies. Significant differences were found between burnout and demographic variables of gender (Mitchell & Hastings, 2001) and years of experience (Chung et al., 1996). In terms of staff behaviour a negative association was found between burnout and observed positive client interaction, and burnout and intention to resign (Lawson & O'Brien, 1994, as cited in Skirrow & Hatton, 2007).

Distinct from the correlational studies mentioned above two longitudinal studies investigated levels of burnout. Boumans & van den Berg (2000) found no changes over time in levels of burnout reported pre- and post-implementation of person-centred approaches. During a move from a hospital into community residential services Harvey & Burns (1994, as

cited by Skirrow & Hatton, 2007) found staff levels of burnout increased significantly over the 6-month period, but returned to original levels post move.

Skirrow and Hatton (2007) concluded that the levels of burnout amongst intellectual disability staff in these studies had not differed significantly from the normative sample described by Maslach et al. (1996). Suggesting that staff in services for adults with intellectual disabilities may not be at increased risk of burnout compared to staff in other human services. It was proposed that either working within intellectual disabilities services was no more challenging than others human service settings, or there were factors associated with working in intellectual disabilities services that protected staff from becoming burned out (Skirrow & Hatton, 2007). These studies had been published between 1988 and 2001, a time when there were many changes in intellectual disabilities service provision. Reductions over time in emotional exhaustion and depersonalisation scores were noted and suggested that changes in service structure from large institutions to smaller residential services could have been as beneficial to staff as they were for service users. Organizational variables were found to be the most reliable predictors of burnout, specifically service delivery and worker support.

Skirrow and Hatton (2007) reported difficulty drawing strong conclusions from the systematic review due to the variety within the studies in terms of measures used and population's samples. The fourteen studies were criticised for small sample sizes, and the poor reporting of data, of sampling techniques, and of assessment measures. It is of interest therefore to explore out how research conducted since 2004 has developed in light of these methodological criticisms.

1.6.3. Updating the literature review on intellectual disability staff burnout.

Following the same method as Skirrow and Hatton (2007) a systematic literature review was conducted to identify how research has progressed and investigated the relationships between

intellectual disability staff burnout, as measured by the MBI-HSS, and service user characteristics, organizational variables, job role, and staff personal variables, well-being, and behaviour. In particular to see whether studies have improved in quality through larger sample sizes, with improvements in reporting of data, sampling techniques, and assessment measures. It also is of interest to see whether studies have tested hypotheses driven from explicit theoretical models. The method for conducting the review, with inclusion criteria, search procedure and flow diagram can be found in Appendix A. The sixteen studies found through this systematic search are detailed in Table 1.2, with details of the study aim, theoretical perspective, study variables investigated, and measures used.

1.6.3.1. General characteristics of the studies. Study sample sizes varied with the majority sampling between 34 and 112 participants. Three studies recruited larger numbers of 323 (Gray-Stanley & Muramatsu, 2011), 926 (Hensel, Lunskey & Dewa, 2012) and 1570 participants (Hickey, 2014). The varied number of participants will affect the power of individual study results, with larger sample studies having more statistical power. Response rates ranged from 23% to 71% and two studies did not provide this information (Rose et al, 2004; Hensel et al., 2012). This is very similar to the general response rate identified for studies of intellectual disability staff of between 22% and 75% (Hatton & Emerson, 1995). Hickey (2014) identified an estimated total response rate of 40% but recognised that participating agencies varied in their response rates from 4% to 99%.

All studies used samples of convenience; mainly undertaking cross-sectional surveys, with three studies using a pre- and post-intervention longitudinal design (Bethay, Wilson, Schnetzer, Nassar & Bordieri, 2013; Hodgkins et al, 2005; Ingham, Riley, Nevin, Evans, & Gair, 2013), and one study using mixed methodology of a cross-sectional and longitudinal design (Devereux, Hastings, Noone, Firth, & Totsika, 2009). In terms of sampling, three studies did not specify the job roles of the participants (Duran, Extremera, & Rey, 2004;

Gray-Stanley & Muramatsu, 2011; Hensel et al., 2012), and three studies reported all participants as being direct care or support workers (Hodgkins et al, 2005; Ingham et al., 2013; Rose et al, 2004; Rose & Rose, 2005). The remaining studies sampled direct care workers and other roles: management (Mascha, 2007; Mutkins et al., 2011; Mills & Rose, 2011; Rose, Mills, Silva & Thompson, 2013; Thomas & Rose, 2010), qualified nurses (Chung & Harding, 2009; Devereux, Hastings, Noone, Firth et al., 2009; Mills & Rose, 2011), therapists and other professionals (Bethay et al., 2013; Mills & Rose, 2011; Rose et al., 2013) and administrative staff (Mutkins, Brown & Thorsteinesson, 2011).

The services sampled also varied between independent, voluntary, and government run services, with three-quarters explicitly recruiting from residential and/or community services. Hodgkins et al. (2005) and Mascha (2007) sampled staff in adult day services only. Five sampled a mixture of residential and other intellectual disability services: day (Bethay et al., 2013; Devereux, Hastings, Noone, Firth et al., 2009; Hensel et al., 2012), respite (Hensel et al., 2012), hospital or inpatient (Devereux, Hastings, Noone, Firth et al., 2009; Ingham et al., 2013) and secure services (Rose et al., 2013). Duran et al, (2004) did not go further than describing ‘institutions for people with intellectual disabilities,’ and Hickey (2014) described sites as ‘a cross-section of small, medium and large agencies’.

Weiner (1996, as cited by Rose & Rose, 2005); Eisenberger et al. (1986, as cited by Mutkins, Brown & Thorsteinesson (2011); Ensel and Link (2004 as cited by Gray-Stanley & Muramatsu, 2011); Hayes (1999, as cited by Bethay et al., 2013); Mash and Johnston (1990, as cited by Rose et al., 2013). All studies utilised self-report measures using paper based surveys, paper plus an emailed electronic document (Hickey, 2014), or paper plus an internet based survey (Mutkins et al., 2011). Self-report measures are widely criticised for social desirability bias, though none of the reviewed studies used observational methods or real incident forms to increase ecological validity. Studies investigated different variables and

their relationships with staff burnout, using a variety of standardised questionnaires and study specific Likert scale measures.

Two studies used vignettes as part of the method (Rose et al, 2004; Rose & Rose, 2005), whilst the other 10 questioned real work experiences. Vignettes have been criticised for being abstract and lacking the emotional relationship that exists between staff and real clients (Lucas et al., 2009), though it is a way of controlling for client variables. Three studies used statistical t-tests and ANOVAs to analyse their results (Bethay et al., 2013; Hodgkins et al., 2005; Ingham et al., 2013), with the remaining studies using correlation analysis. Several undertook further multiple and hierarchical regression analysis (Chung & Harding, 2009; Devereux, Hastings, Noone, Firth et al., 2009; Gray-Stanley & Muramatsu, 2011; Mutkins et al., 2011, Thomas & Rose, 2010) and path analysis (Rose & Rose, 2005; Thomas & Rose, 2010). Mascha (2007) also used qualitative analysis to explore participant responses to open-ended questions about organisational factors.

The mean scores for the three dimensions of the MBI-HSS reported ranged from 16.56 to 25.46 for emotional exhaustion, from 2.00 to 9.54 for depersonalisation, and from 27.94 to 36.90 for personal accomplishment. In comparison the mean scores reported in the MBI-HSS handbook are emotional exhaustion 21.0 ($SD = 10.8$), depersonalisation 8.7 ($SD = 7.1$) and personal accomplishment 34.6 ($SD = 5.9$) (Maslach et al., 1996). The majority of studies reported data for the mean scores on all three dimensions of the MBI-HSS. Devereux, Hastings, Noone, Firth et al., (2009) and Rose et al, (2004) did not provide any break down of the MBI-HSS data collected, Gray-Stanley and Muramatsu (2011) only measured and reported emotional exhaustion, Duran et al., (2004) reported the mean scale scores as opposed to the mean total scores for each scale, and Ingham et al., (2013) reported mean total MBI-HSS scores. Mills and Rose (2011) reported emotional exhaustion and personal

Table 1.2

Summary of studies included in the systematic review

| Authors and Country | Sample | Theoretical model | Aims of study investigation | Study variables (other than burnout): <i>Measures used</i> | Main Study findings and <i>mean scores on dimensions of the MBI-HSS (Standard deviations)</i> |
|---|---|-------------------------------|--|--|---|
| Rose, Horne, Rose & Hastings (2004) UK | Study 1 <i>N</i> = 101 Study 2 <i>N</i> = 99 | No explicit theoretical model | Association between negative emotional reactions to challenging behaviour and staff well-being | Study 1 Negative Emotions: <i>Emotional Reactions to Challenging Behaviour Scale</i> Study 2 Challenging behaviour: Three vignettes, <i>Likert scales rating emotions</i> | Significant positive correlations found between negative emotional reactions and EE and DP burnout. Mean EE, PA and DP scores not reported |
| Duran, Extremera, & Rey (2004) Spain | <i>N</i> = 112 | No explicit theoretical model | Relationship between Trait Meta-Mood Scale and burnout, and engagement | 1. Emotional Intelligence: <i>Spanish Trait Meta-Mood Scale</i> 2. Engagement: <i>Utrecht Work Engagement Scale</i> | Emotional clarity and repair to mood significantly associated with PA. EE, DP and PA mean item scores provided instead of mean subscale score. |
| Hodgkins, Rose, & Rose (2005) UK | Pre: <i>N</i> = 46 Post: <i>N</i> = 36 | No explicit theoretical model | One-day workshop intervention on reduction of stress levels | 1. Perceptions of strain, demands and supports: <i>Demands and support questionnaire, Staff support questionnaire</i> 2. Perceptions of the team: <i>Team climate inventory</i> . (Only a pre-intervention measure) 3. Anxiety: <i>Likert Scale</i> | Post-intervention reductions in levels of anxiety and emotional exhaustion. EE: 43 pre = 17.37 (10.33) 34 post = 11.73 (7.41) DP: 45 pre = 2.00 (3.38) 33 post = 2.33 (3.60) PA: 40 pre = 34.82 (7.59) 32 post = 33.81 (8.97) |

| | | | | | |
|---|----------------------------------|--|---|---|---|
| Rose & Rose (2005) UK | N = 107 | Weiner (1996) model of attributions and helping behaviour | 1. Explicit model for impact of perceived stress on quality of care provided 2. Can attributions explain a greater proportion of the variance | 1. Attributions: <i>Attribution Style Questionnaire</i> 2. Emotion reactions: <i>Likert scale</i> 3. Optimism for changing Challenging Behaviour: <i>Likert scale</i> 4. Helping behaviour: <i>Likert scale</i> 5. Perception of Stress: <i>General Health Questionnaire</i> 6. Challenging Behaviour: <i>Aberrant Behaviour Checklist</i> | High stress levels and moderate burnout did not relate to reports of thoughts and feelings regarding challenging behaviour. EE: 25.46 (11.54) DP: 9.54 (6.12) PA: 27.94 (7.21) |
| Mascha (2007) UK | N = 36 | No explicit theoretical model | 1. Burnout in day services 2. Sources of support and stress 3. Role clarity, job satisfaction, supervision, and propensity to leave 4. Coping strategies 5. Demographic variables | 1. Working environment: 23 <i>open-ended questions</i> 2. Staff support: <i>The Staff Support Questionnaire</i> 3. Coping: <i>The Shortened Ways of Coping Questionnaire</i> | Wishful thinking as a coping strategy, and satisfaction with supervision were significantly associated with EE. Greater wishful thinking was associated with lower PA. EE: 21.5 (13.9) DP 4.8 (4.9) PA: 35.5 (6.7) |
| Devereux, Hastings, Noone, Firth & Totsika (2009) UK | Data 1: N = 96 Data 2: N = 38 | Lazarus and Folkman (1984) transactional model of stress | 1. Mediating or moderating effects of coping and support between perceived work demands and burnout 2. Explore coping and support in predicting burnout over time | 1. Perceptions of demands: <i>Staff Stressor Questionnaire</i> 2. Coping: <i>The Shortened Ways of Coping Questionnaire</i> 3. Support: <i>Staff Support and Satisfaction Questionnaire</i> | Significant association between work demands and EE, and the relationship was partially mediated by wishful thinking coping Practical coping thinking associated with PA . Mean EE, DP and PA scores not reported |

| | | | | | |
|--|---------|--|---|---|--|
| Chung & Harding (2009) UK | N = 103 | No explicit theoretical model | Impact of five personality traits on burnout and psychological well-being | 1. Challenging Behaviour: <i>Aberrant Behaviour Checklist</i> 2. Psychological Well-being: <i>General Health Questionnaire</i> 3. Personality: <i>NEO-Five Factor Inventory</i> | Staff perception of challenging behaviour predicted burnout. Personality traits predicted burnout and psychological well-being. EE: 20.59 (11.99) DP: 4.85 (5.49) PA: 35.29 (7.79) |
| Thomas & Rose (2010) UK | N = 95 | Reciprocity and equity theory | 1. Relationship between reciprocity, burnout, emotional and physical withdrawal from care 2. Negative emotions and optimism | 1. Global Reciprocity: <i>Global Reciprocity Measure</i> 2. Specific Reciprocity: <i>Specific Reciprocity measure</i> 3. Optimism: <i>Likert scale</i> 4. Helping behaviour: <i>Likert scale</i> 5. Mood: <i>The positive and negative affect schedule</i> | Association was found between lack of reciprocity and levels of burnout. Burnout was correlated with emotion, optimism, and helping behaviour. EE: 16.56 (14.15) DP: 4.25 (5.08) PA: 35.13 (8.56) |
| Mutkins, Brown & Thorsteinsson (2011) Australia | N = 80 | Eisenberger et al. (1986) social exchange theory | Direct and indirect associations between: client challenging behaviour, perceived stress, anxiety, depression, social and organisational support, burnout | 1. Challenging Behaviour: <i>Likert scale</i> 2. Mood: <i>Depression, Anxiety and Stress Scale</i> 3. Organizational support: <i>Survey of Perceived Organizational Support short version</i> 4. Social support: <i>Social Support Questionnaire short version</i> | Depression symptoms and organisational support were associated with greater EE and DP. Less social support was associated with less PA. EE: 17.90 (12.84) DP: 4.68 (4.68) PA: 34.71 (9.17) |

| | | | | | |
|---|-------------------------------|--|--|--|--|
| Gray-Stanley & Muramatsu (2011) USA | <i>N</i> = 323 | Ensel and Link (2004) life stress model | 1. What types of work stress are related to burnout 2. How social and personal resources contributed to lower burnout | 1. Work stress: <i>26 item Likert scale</i> 2. Work social support: <i>10 item Likert scale</i> 3. Locus of control: <i>8 item Likert scale</i> | Work overload, limited participation decision-making, client disability care, were positively associated with EE. EE: 19.19 (\pm 13.34) |
| Mills & Rose (2011) UK | <i>N</i> = 77 | No explicit theoretical model | 1. Cognitive variables 2. Challenging behaviour and burnout 3. Cognitive variables and burnout 4. Mediating relationship of cognitive variables | 1. Challenging Behaviour: <i>Checklist of Challenging Behaviour</i> 2. Cognitive Variables: <i>Challenging Behaviour Perception Questionnaire, Controllability Beliefs Scale, Fear of Assault Measure</i> | Positive associations found between challenging behaviour and burnout, challenging behaviour and cognitive variables, and cognitive variables and burnout. EE: 19.86 PA: 36.39 |
| Hensel, Lunsky & Dewa (2012) Canada | <i>N</i> = 926 | No explicit theoretical model | Association between frequency and severity of exposure to client aggression and burnout | 1. Client aggression: <i>Likert scales</i> 2. Perception of severity of Challenging Behaviour: <i>Rating on scale 1-100</i> | Exposure to aggression was positively associated with EE and DP. EE: 18.7 (11.5) DP: 4.7 (7.5) PA: 36.9 (4.9) |
| Bethay, Wilson, Schnetzer, Nassar, Bordieri (2013) USA | Pre and post <i>N</i> = 34 | Hayes (1999) model of acceptance and commitment training | Effects of a workshop combining acceptance and commitment training with training in applied behaviour analysis | 1. Well-being: <i>General Health Questionnaire-12</i> 2. Burnout Believability Scale: <i>13-item Likert scale</i> 3. Social Validity Survey: <i>6-item Likert scale</i> | ACT group participants with higher levels of distress pre-test showed greater reductions in psychological distress post-test, and decreased in believability of burnout-related thoughts observed pre-test to follow-up. |

ACT+ABA group:
 EE – Pre: 16.78 (13.32)
 Post: 15.44 (10.53)
 DP – Pre: 5.50 (3.99)
 Post: 5.72 (3.92)
 PA - Pre: 33.44 (8.05)
 Post: 31.61 (10.52)

ABA group:
 EE - Pre: 17.81 (11.03)
 Post: 17.50 (11.42)
 DP - Pre: 4.13 (3.12)
 Post: 3.25 (2.98)
 PA - Pre: 33.19 (9.81)
 Post: 34.75 (8.01)

| | | | | | |
|--|--|---|--|---|---|
| Ingham, Riley, Nevin, Evans & Gair (2013) UK | Workshop group N = 37 Comparison group N = 21 | Lazarus & Folkman (1984) transactional model of stress | A brief workshop on resilience | 1. Emotional responses to aggressive challenging behaviour 2. Helpful aspects of workshop questionnaire | Following the workshop negative emotional reactions to challenging behaviour reduced, but burnout did not. Only total MBI scores were provided pre- and post-workshop |
| Rose, Mills, Silva, & Thompson (2013) UK | N = 77 | Mash and Johnston (1990) model of stress in parent child interactions | 1. Use model proposed to examine well-being, challenging behaviour, therapeutic environment 2. Is relationship mediated by fear of assault | 1. Fear of assault: <i>2-item Likert scale</i> 2. Challenging Behaviour: <i>Checklist of challenging behaviours</i> 3. Modified version of Essen Climate 4. Evaluation Schema: <i>15-item Likert Scale</i> | The relationships between challenging behaviour and EE, and experience safety and EE were mediated by fear of assault. EE: 19.86 (11.09) DP: 4.72 (5.38) PA: 36.4 (6.67) |

| | | | | | |
|----------------------------|--------------------|-------------------------------------|--|---|---|
| Hickey (2014) Canada | <i>N</i> = 1570 | No explicit theoretical model | Test moderating effects of prosocial motivation on the association of stress and burnout | 1. Well-being: <i>Positive Affect and Negative Affect Scale</i> 2. Job satisfaction: <i>9-item Likert scale</i> <i>Affective Commitment Scale</i> 3. Occupational Role: <i>Occupational Role Questionnaire</i> 4. Prosocial motivation: <i>6-item Likert scale</i> | Prosocial motivation moderated the association of EE and role boundary stress with DP. Prosocial motivation moderated the effects of role ambiguity stress with a sense of PA. EE: 16.83 (10.27) DP: 3.36 (4.18) PA: 38.77 (6.77) |
|----------------------------|--------------------|-------------------------------------|--|---|---|

Note. EE = emotional exhaustion. DP = depersonalisation, PA = personal accomplishment.

Weiner (1996, as cited by Rose & Rose, 2005); Eisenberger et al. (1986, as cited by Mutkins, Brown & Thorsteinesson (2011); Ensel and Link (2004 as cited by Gray-Stanley & Muramatsu, 2011); Hayes (1999, as cited by Bethay et al., 2013); Mash and Johnston (1990, as cited by Rose et al., 2013).

accomplishment only though the same data was used in the study by Rose et al. (2013) which provides the mean scores on all three dimensions including depersonalisation. These sixteen studies will now be grouped by variables investigated and appraised in light of the above methodological considerations.

1.6.3.2. Client characteristics. Eight studies investigated the relationship between client characteristics and staff burnout. Four studies measured staff experiences of challenging behaviour with standardised measures widely used in intellectual disability assessment and research: The Aberrant Behaviour Checklist (Aman & Singh, 1986) and the Checklist of Challenging Behaviours (Harris, 1994). The other four studies used individual Likert scales with between one and three items asking about the frequency, severity and topography of challenging behaviour (Hensel et al., 2012; Mutkins et al., 2011; Rose et al, 2004; Thomas & Rose, 2010).

Gray-Stanley and Muramatsu (2011) conducted multiple regression analysis and found client disability, work overload and limited decision-making positively predicted emotional exhaustion. Three studies found the greater the level of staff exposure to challenging behaviour the higher the level of emotional exhaustion (Chung & Harding, 2009; Hensel et al., 2012; Mills & Rose, 2011), though two studies found no significant relationships (Mutkins et al., 2011; Rose & Rose, 2005). Hensel et al. (2012) found in a large sample that the greater the level of exposure the higher the sense of personal accomplishment. This may support the finding of Howard et al. (2009) that staff in services with higher levels of challenging behaviour report higher levels of self-efficacy, with possible links between self-efficacy and personal accomplishment.

All these studies used self-report measures about exposure to challenging behaviours, which may be unreliable or biased due to social desirability affects. Specifically many studies did not report the validity and reliability of the Likert scales used. Hensel et al. (2012)

reported their Likert scale measure as being used before, though the previous research was conducted within educational services (Hastings & Brown, 2002) and has not been replicated in intellectual disability staff research.

1.6.3.3. Organisational variables. Six of the studies investigated the relationship between organizational variables and staff burnout. Mascha (2007) reported higher levels of staff emotional exhaustion associated with lower levels of staff satisfaction with sources of support, role clarity and job satisfaction. The sample size of this study was small ($N = 36$) and the large number of comparisons made, without explicit use of adjusted p -values, increased the likelihood of Type I errors and affects the power of these results. Gray-Stanley and Muramatsu (2011) found the level of staff social support made a difference to level of emotional exhaustion when work load was perceived to be high, whilst locus of control was associated with lower emotional exhaustion when workload was perceived to be low. Hickey (2014) supported this result, finding workload stress and related organizational factors predicted emotional exhaustion. Negative correlations were found between personal accomplishment and a lack of reciprocity with the organization (Thomas & Rose, 2010), and between levels of emotional exhaustion and depersonalisation with perceived organizational support (Mutkins et al., 2011).

Hierarchical regression analysis found organizational support had a moderating effect when predicting personal accomplishment (Devereux, Hastings, Noone, Firth et al., 2009). Affective organisational commitment and job satisfaction were positively associated with personal accomplishment (Hickey, 2014). These results show some support for equity theory of work stress, and identifies how clinical intervention may target improving staff support structures within an organisation, through supervision and team meetings. A limitation of these studies is the use of cross-sectional correlation designs leading to no causal inferences

about whether staff perceptions of organizational variables are a symptom of burnout or a precursor to burnout.

1.6.3.4. Personal and demographic variables. Eight studies investigated the relationship between staff burnout and staff personal variables. Duran et al. (2004) found staff reports of emotional clarity and repair to moods, two subscales of a standardised emotional intelligence measure, were moderately associated with high personal accomplishment. Duran et al. (2004) reported the mean score on subscales of the MBI-HSS as opposed to the mean total scores for the subscales which are provided in the other studies, which limits the ability to compare and generalise their findings.

Two studies found wishful thinking coping was associated with higher levels of emotional exhaustion and lower levels of personal accomplishment (Devereux, Hastings, Noone, Firth et al., 2009; Mascha, 2007). The reliability of the standardised questionnaire used by Devereux, Hastings, Noone, Firth et al., (2009) was low (wishful thinking subscale $\alpha = .63$ after removal of three items). Chung and Harding (2009) found the personality trait of neuroticism was associated with greater emotional exhaustion, and less personal accomplishment, whilst Mutkins et al. (2011) found the higher the level of social support the higher the level of personal accomplishment. Two studies found no significant relationships between personal variables and burnout (Mills & Rose, 2011; Rose et al, 2004). These results add to the findings of Hatton, Rivers et al. (1999) and Mitchell and Hastings (2001), and offers further support to a cognitive-behavioural theory of work stress, highlighting how stress management interventions based on a cognitive-behavioural model could be delivered to staff teams to reduce wishful thinking coping strategies.

Hickey (2014) found moderate associations between prosocial motivation and personal accomplishment, and found prosocial motivation had a moderating effect between emotional exhaustion and depersonalisation. These findings are from a very large sample

which supports the power of these results, though the effect sizes were moderate, but the study did not explicitly test any specific model of work stress. This result was interpreted to suggest that prosocial motivation might buffer the effect of emotional exhaustion against deterioration of support workers relationships with clients, and emotional exhaustion might not result in negative outcomes for staff and client (Hickey, 2014). It is difficult to infer from the report what exactly Hickey (2014) is using the term *prosocial motivation* to mean. The aim of the abstract suggested that the study is exploring the desire to engage in work that is beneficial to others but it would have been helpful to have an explicit definition within the text.

In terms of demographic variables, Mascha (2007) found a significant difference between feelings of depersonalisation and marital status, with single staff reporting more feelings of depersonalisation compared with married or divorced/separated staff. Mutkins et al. (2011) also found depersonalisation was related to depression in male participants for support staff, but was not for administrative/managerial staff. The results of this study need to be considered in light of the mixed sample population of staff positions, recognising that different roles may be exposed to different types of work stressors.

1.6.3.5. Staff well-being and behaviour. Five studies investigated the relationship between burnout, and staff well-being or behaviour. Three studies identified positive relationships between emotional exhaustion and depersonalisation, and negative emotional reactions to challenging behaviour (Rose et al, 2004; Rose & Rose, 2005; Thomas & Rose, 2010). Undertaking structural equation modelling with emotional exhaustion Rose and Rose (2005) found a significant (but not close) fit of the data for the variables of staff optimism, empathy, negative emotions, and global attributions. Rose et al. (2004) and Rose and Rose (2005) used vignettes which affects the validity of the results, and Rose et al. (2004) was a brief report lacking details of the methodology and the analysis. Mills and Rose (2011) found

positive correlations between levels of burnout and cognitive variables of perceived negative consequences, perception of control, perceived negative emotions and fear of assault associated with challenging behaviour.

Investigating personal well-being, Mutkins et al. (2011) found a positive correlation between levels of emotional exhaustion and depersonalisation, and staff levels of stress, anxiety and depression. Hickey (2014) supported this, finding a positive association between emotional exhaustion and negative feelings, and a negative association between emotional exhaustion and positive feelings.

Though not explicitly testing a particular theoretical model Mills and Rose (2011) found the more control staff felt over challenging behaviour, the more personal accomplishment they reported, in line with attribution theory. Thomas & Rose (2010) used social exchange theories of reciprocity (through a model based on Weiner's attribution theory) and found positive correlations between staff personal accomplishment, positive emotion, optimism and willingness to offer extra help to clients with challenging behaviour in line with attribution theory. This supports previous research findings of positive aspects of staff psychological well-being being significantly associated with personal accomplishment at work (Hastings & Horne, 2004). Thomas & Rose (2010) measured optimism and helping behaviour variables using single Likert scales, leading to questions about their validity as measures of actual helping behaviour. Rose and Rose (2005) used a similar Likert scale to measure helping behaviour but found their results severely skewed.

1.6.3.6. Intervention and longitudinal studies. Four studies undertook longitudinal studies of staff burnout. Devereux, Hastings, Noone, Firth et al., (2009) followed up their initial investigation of staff perception of demands at work, staff support and satisfaction, coping style, and burnout 22 months later and found that emotional exhaustion was relatively stable. They suggested that negative dimensions of staff burnout (emotional exhaustion and

depersonalisation) are long-lasting, whilst positive dimensions are less so (personal accomplishment).

Three studies presented the findings from interventions using stress-management and problem-solving techniques (Hodgkins et al., 2005), mindfulness and acceptance-based (Bethay et al., 2013), and cognitive-behavioural and acceptance and commitment therapy (ACT) approaches (Ingham et al., 2013). Hodgkins et al., (2005) found their one-day workshop significantly reduced mean staff emotional exhaustion and anxiety three months post-intervention. This study did not use a control group therefore it is unknown whether other changes occurred within the organisations at the same time that could have affected these results. The intervention does not appear to be based on explicit theory and the research is only briefly described (article <1700 words) giving a concise overview of the study and intervention. It would have been helpful to have more detail for replication purposes.

Bethay et al.'s (2013) report provides clear details of the intervention which is based on theory (ACT), and compares intervention results with a control group. However the validity of the results need to be considered in light of the small sample of 14 participants. The intervention involved three sessions of didactic teaching about stress in the workplace and the ACT model, reflections on work stressors, thoughts, emotions and coping strategies, experiential mindfulness and ACT exercises, and applied behavioural analysis (ABA). The intervention group (ACT+ABA group) and the comparison group (ABA group) both received lectures about ABA, the intervention group for three hours and the ABA group for nine hours. No significant differences on dimensions of burnout were found between the two groups pre- or post-intervention during both primary and secondary analyses.

Subsequent post-hoc investigations found significant differences were identified on social validity measures, with participants in the ACT+ABA group significantly more likely to agree that the intervention had improved working relationships. Participants showing the

highest levels of distress (above the clinical cut-off point on the General Health Questionnaire-12) and attending the ACT+ABA group showed significantly greater reduction in distress post-intervention compared with the ABA group, which shows the intervention might be most helpful for those experiencing the highest levels of distress. The results of these post-hoc investigations need to be considered carefully as they were not part of the planned hypothesis-testing.

Ingham et al.'s (2013) workshop involved experiential tasks and reflective discussions and aimed to improve psychological resilience. No significant differences were found pre- and post-intervention on measures of burnout for the 31 participants who attended the workshop. A significant difference was found pre- and post-intervention on a measure of emotional responses to aggressive challenging behaviour, whilst there was no difference on this measure for the control group. It was suggested that this provided some evidence for interventions within Lazarus and Folkman's (1984) transactional model of stress, aiming to have an impact on cognitive and emotional mediators of stress for staff. However there was no change in level of burnout meaning the reduction in negative emotions did not affect the relationship between staff experience and burnout. The authors only provided the results of analysis of the total mean scores on the MBI-HSS instead of breaking it down into the three dimensions, which makes it difficult to generalise and compare these results with the other studies discussed here.

Two of these studies lost participants during follow-up, Hodgkins et al.'s (2005) numbers decreased from 43 to 34 with no explanations for drop-out, whilst participants from Devereux, Hastings, Noone, Firth et al.'s (2009) study decreased from 96 to 38 participants longitudinally. The reduction in participants within these studies could bias the results. For example participants who did not find the intervention successful or who had high levels of

emotional exhaustion may have been less inclined to complete follow-up measures or left their jobs at the time of follow-up.

1.6.3.7. Discussion of literature review. Given the wide range of samples within the 16 studies reviewed here, it remains difficult to draw firm conclusions in this research area. Whilst the search criteria included only studies that were investigating staff working with adults with intellectual disabilities in community services, this review has revealed the mixture of services, organizational cultures, job roles and qualifications sampled within research into this population. A total of 34 different standardised and study specific measures were used to survey variables of client characteristics, organization, job role, staff demographics, staff personal wellbeing, and staff behaviour, and their relationship with one measure of burnout, the MBI-HSS (Maslach et al., 1996). There was a wide range of MBI-HSS mean subscale scores reported across 10 of the studies on the three dimensions of emotional exhaustion, depersonalisation, and personal accomplishment. Only one study's (Rose & Rose, 2005) mean score for personal accomplishment fell outside one standard deviation from the normative data reported in the MBI handbook (Maslach et al., 1996).

Studies that used standardise measures of challenging behaviour, such as the Checklist of Challenging Behaviour and the Aberrant Behaviour Checklist were appraised to be more robust. Many studies that used Likert scales of three or less items to measure frequency, severity and topography of challenging behaviour did not provide information about the scales validity and reliability. This made it harder to trust significant results and compare findings with other studies in the review. It would also be difficult to replicate the study methods. Likert scales were used to measure study variables such as helping behaviour (Rose & Rose, 2005; Thomas & Rose, 2010) which raised questions about how valid this could be as a measure of actual helping behaviour.

Study findings from smaller samples (Bethay et al., 2013; Mascha, 2007) were considered to have less power due to the high number of correlations that were conducted with low numbers of participants. Whilst the findings of studies with larger samples (Gray-Stanley & Muramatsu, 2011; Hensel et al., 2012; Hickey, 2014) were considered to have greater statistical power. Studies which provided the mean and standard deviations of participant subscale scores on the three dimensions of the MBI-HSS were appraised to be more open to comparison with each other and normative data for the questionnaire. It was harder to do this with the results of the Ingham et al. (2014) study which provided the total MBI-HSS score and Duran et al., (2004) study which provided mean item scores, and those that did not provide any breakdown.

Seven of sixteen studies tested hypotheses not derived from explicit theoretical models. It was harder to understand how clinical implications were drawn from significant results found in studies without a theoretical underpinning. Supporting attribution theory, there was limited evidence that the more staff felt in control of client challenging behaviour, the more personal accomplishment they felt at work (Mills & Rose, 2011), and higher staff positive emotion and optimism was associated with greater willingness to offer help to clients with challenging behaviour (Thomas & Rose, 2010). Wishful thinking as a coping strategy was found in two studies (Mascha, 2007; Devereux, Hastings, Noone, Firth et al., 2009) to be associated with staff feeling higher levels of emotional exhaustion, and lower levels of feeling personal accomplishment with work. This is in line with previous research findings (Hatton et al., 1999, Mitchell & Hastings, 2001) and supports a cognitive-behavioural model of stress (Lazarus & Folkman, 1984). This is an area that further research could investigate, specifically looking at staff interventions or training based on this model, as explored by Ingham et al. (2013), using techniques that may help staff to manage their appraisals and learn more adaptive coping strategies.

There was evidence of associations between staff levels of emotional exhaustion with lower levels of staff satisfaction with organizational support, of role clarity, and of job satisfaction (Mascha, 2007, Thomas & Rose, 2010, Mutkins et al., 2011, Gray-Stanley & Muramatsu, 2011), which supports social exchange theories of inequity in relationships between staff and their organizations (Schaufeli et al, 1996). The associations described here could be investigated further, possibly leading to ideas of how to address through organizational policy perceived and real inequity in staff relationships, or how to manage perceived inequity in relationships between staff and clients through training.

1.6.4. Summary. This literature review has shown how research into staff burnout has progressed over the last thirty years and this information was used to develop the present research study. Rose (2011) acknowledged that the system in which staff work is complex but research designs probably need to become simpler rather than more complex if they are going to have real utility. The research findings discussed here offer limited support for attribution, cognitive-behavioural, and social-exchange theories of stress. This suggests that future studies could investigate these three theoretical models further, in order to gain a greater understanding of staff burnout and explore positive perceptions of support work.

Thomas and Rose (2010) reported positive correlations between positive emotions and levels of personal accomplishment staff felt in their work and Hickey (2014) found prosocial motivation had a positive affect on staff-client relations and personal accomplishment. Three studies identified positive correlations between negative emotions and levels of emotional exhaustion and depersonalisation (Rose et al, 2004, Rose & Rose, 2005 and Thomas & Rose, 2010).

These results support the findings of Bell and Espie (2002) and Hastings and Horne (2004) that staff experience both positive and negative perceptions of support work, and positive and negative outcomes in relation to it. Research into intellectual disability work

stress and burnout has been criticised for not exploring positive aspects (Devereux, Hastings & Noone., 2009), whilst the concept has been explored in caregiving populations. Folkman (1997) undertook a longitudinal investigation with caregiving partners of men with AIDS and found they experienced both positive and negative psychological states. Lawton et al., (1991) found caring behaviour provided older adult caregivers with both positive affect and negative affect, which were unrelated to one another and had difference antecedents.

Skirrow and Hatton (2007) reported that levels of burnout were reducing in intellectual disability staff suggesting that there may be other factors that protect staff. Investigating what may be contributing to increasing levels of personal accomplishment associated with working with people with intellectual disability would be interesting. Exploring how this operates alongside variables found in the literature review to be associated with levels of emotional exhaustion and depersonalisation.

1.7. A Theoretical Model Investigating both Positive and Negative Aspects of Caregiving

In the 1980s Lawton and colleagues investigated older adult well-being (Lawton, Moss, Fulcomer, & Kleban, 1982; Lawton, 1983; Lawton, Kleban & diCarlo, 1984) and respite services for caregivers (Brody, Saperstein, & Lawton, 1989; Lawton, Brody & Saperstein, 1989). Considering the growing social problem of older adult care and the effect of the caregiving process on both giver and recipient the research moved on to focus on the subjective appraisal of caregiving (Lawton, Kleban, Moss, Rovine, and Glicksman, 1989). Investigating the caregiving process with spouse and adult child caregivers of elderly parents suffering from Alzheimer's disease Lawton, Moss, Kleban, Glicksman, and Rovine (1991) proposed and investigated a two-factor model of caregiving appraisal and psychological well-being.

The model was based on Lazarus' (1966) stress model and studies by Bradburn (1969) suggesting the independence of positive and negative affect. The development of the

two-factor model will now be discussed with reference to how it has been used to explore caregiving process in other familial caregiving populations, leading to ideas about how it might be used to understand how factors associated with staff stress, burnout and well-being interact.

1.7.1. A two-factor model of caregiving appraisal and psychological well-being.

Lawton et al. (1991) used Lazarus and Folkman's (1984) cognitive-behavioural framework of stress (as described in Section 1.5.1.3) to investigate caregiving appraisal. Lawton et al. (1991) conceptualised secondary appraisal as a caregiver's evaluation of the on-going quality of their own caregiving. It was postulated that the secondary appraisal mediates between the demand of caregiving and the outcome of psychological well-being. The degree of disability of the person being cared for was identified as the objective stressor. Resources were conceptualised as personal and social. The personal resource was caregiver health and the social resource was informal caregiving assistance provided by others. Two secondary appraisals were identified to describe possible evaluations of the caregiving process; caregiver satisfaction and caregiver burden. Subjectively perceived gains or positive returns of caregiving were represented by caregiver satisfaction, and subjective loss of personal freedom and psychological distress attributed directly to caregiving were represented by caregiver burden.

Psychological well-being was described by Lawton (1983) as "one's subjective evaluation of the overall quality of one's inner experience." Lawton et al. (1991) considered well-being to be a measurable outcome of caregiving stress, though they also highlighted the impact of personality traits, general psychopathology, and situation-specific stressors on a caregiver's well-being. Within the proposed two-factor model caregiving appraisals were seen as an outcome of caregiving. Caregiving appraisal was also a mediator between the objective stressor and psychological well-being. Two parallel processes were hypothesised to

occur depending on the caregiver's secondary appraisal. Secondary appraisal of caregiving satisfaction was hypothesised to lead to positive affect. Secondary appraisal of caregiver burden was hypothesised to lead to negative affect.

Lawton and colleagues' parallel process hypothesis developed from Bradburn's two-factor theory of happiness (Bradburn, 1969). Choosing to study subjective feeling states that individuals experience in their daily lives Bradburn (1969) used the term psychological well-being, reporting that the health-orientated cultural concern about mental health was really a concern about a subjective sense of well-being. The feeling states were classified as positive and negative, a well-recognised dichotomy. This concept was then translated into an operation measure, the 'Affect Balance Scale'. Bradburn and Caplovitz (1965, as cited in Bradburn, 1969) used this measure to collect systematic data from 2006 respondents, a cross section of four towns in the United States, asking whether they had experienced several feeling states during the previous week. Analysis of the data showed individual variations across the two dimensions and unexpectedly the dimensions were independent from each other. No correlation was found between the extent of positive feelings a person had experienced in the previous week and the extent of negative feelings. The difference between the number of positive and negative feelings was a good predictor of a person's overall rating of their own happiness, with greater excess of positive over negative affect increasing the overall rating of psychological well-being.

From this empirical evidence Bradburn (1969) identified a framework of psychological well-being. An individual's position on the dimension of psychological well-being was the result of their position on two independent dimensions, one of positive affect and the other of negative affect. As life is a dynamic process an individual's sense of well-being would be expected to change as factors that affect positive and negative experiences change. Bradburn (1969) noted that this model was similar to the one proposed for work

satisfaction by Herzberg, Mausner, and Synderman (1959, as cited by Bradburn, 1969). Namely there was a group of factors such as low pay, poor work conditions, and boss disagreements that played a role as ‘dissatisfiers’ and another group that played a role as ‘satisfiers.’

Lawton et al. (1991) cited studies by Warr, Barter and Brownbridge (1983) and Diener and Emmons (1985) and the review of studies by Watson and Tellegen (1985) to highlight how the views of positive affect and negative affect had been modified since Bradburn’s (1969) proposed model and it was clearly recognised that positive and negative affect were different from one another. Lawton et al. (1991) reasoned that caregiving was an activity positively reaffirming to the caregiver which would bring them satisfaction, though it also involved a demand that might exceed a person’s resources and therefore increase caregiving burden. Associated with the two dimensions of psychological well-being, caregiving satisfaction was proposed to be associated with positive affect but be less effective in mitigating depression, whilst caregiving burden was proposed to increase depression to a greater degree than it would diminish positive affect.

1.7.2. Testing the two-factor model of caregiving appraisal with familial caregivers of older people. Lawton et al. (1991) tested the hypothesised caregiving model, shown in Figure 1.3, with 285 spouse and 244 adult child caregivers of older adults suffering from Alzheimer’s disease. The authors undertook structured interviews with volunteers recruited through support groups, the media and service-giving agencies. Measures used were four- or five-point rating scales of 20 potential care recipient symptoms, frequency of caregiver assistance on nine personal-care tasks, a four-item index of self-rated health for personal resources, and for help received the number (from 0 to 9) of personal-care functions another informal helper had assisted the caregiver with over the previous 12 months. To investigate caregiving appraisal 15 items from the Burden Interview (Zarit et al., 1980, as

cited by Lawton et al., 1991) were used, 5 items for caregiving satisfaction and 10 items for subjective caregiving burden. The 5 items from the positive affect scale of the Affect Balance Scale (Bradburn, 1969) and the 20 item Epidemiological Studies Depression Scale (Radloff, 1977, as cited by Lawton et al., 1991) were used to investigate the two dimensions of affect.

Structural equation modelling was used to see if there were significant relationships as hypothesised between the variables and if the collected data fitted the model. Lawton et al. (1991) found the hypothesised model shown in Figure 1.3 fit the data for spouse caregivers.

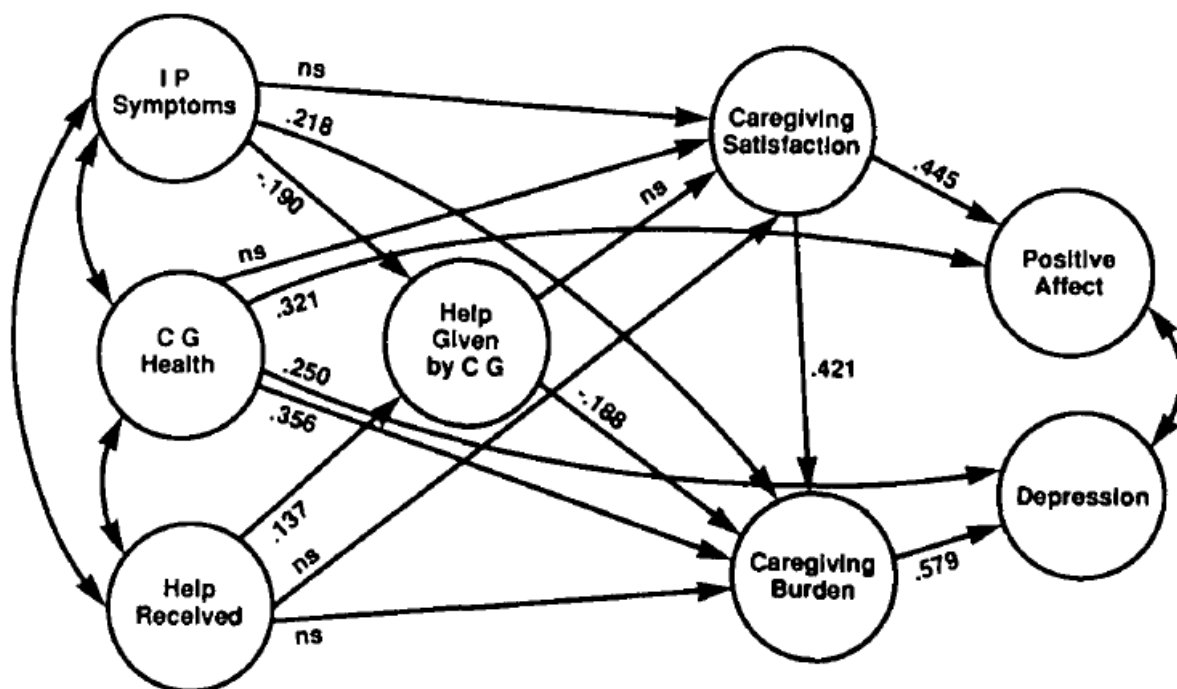


Figure 1.3. Caregiving model for spouse and adult caregivers (C G) hypothesised by Lawton, Moss, Kleban, Glicksman, and Rovine (1991). Entries are LISREL estimates for spouse caregivers. *IP Symptoms* means the degree of disability of the person being cared for.

Looking at the objective stressor, the higher degree of disability a care recipient had the more help was given by the caregiver and the greater burden experienced by the caregiver. The objective stressor itself was unrelated to caregiver satisfaction or either dimension of affect. For resources, more problems with caregiver health correlated with greater burden, less positive affect, and higher negative affect. The amount of help received

by the caregiver correlated with the amount of caregiver help provided, but was not associated with caregiving satisfaction or burden. Higher levels of caregiver satisfaction led to higher levels of positive affect, whilst higher caregiver burden led to higher levels of negative affect.

The same model shown in Figure 1.3 was hypothesised for adult child caregivers but the data did not fit the model well. The hypothesised paths between caregiver health and caregiving satisfaction, and between help received and caregiver satisfaction and burden were not significant. The hypothesised path between caregiver satisfaction to positive affect was not significant either. The other hypothesised paths were significant in a similar way to the spouse caregivers.

Conclusions drawn from the initial test of the two-factor model of caregiving appraisal and psychological well-being were reported separately for caregiver group of spouse and for adult child, recognising the difference of marital commitment to the caregiving process. The research recognised the use of a model that considers appraisals and outcomes of positive affect and negative affect, but the data did not support the separate hypothesised pathways linking the two types of caregiving appraisal with the two types of psychological well-being (Lawton et al., 1991).

1.7.3. Use of the two-factor model in other populations. Lawton et al.'s (1991) two-factor model has since been investigated within populations of family carers of children who have developmental and mental health disabilities (Pruchno, Patrick, & Burant, 1996), individuals with traumatic brain injury (Chronister et al., 2010), and adults and children with intellectual disabilities (Hastings, Beck & Hill, 2005; Hastings & Taunt, 2002; Smith, 1996).

There is one previous example of the two factor model being tested with intellectual disability staff. Hastings and Horne (2004) tested a newly adapted measure the Staff Positive Contributions Questionnaire with 101 support staff, who also completed the MBI-HSS and a

measure of anxiety and depression. Participant scores on the positive contributions questionnaire were significantly but weakly ($r(99) = .24, p < .05$) associated with personal accomplishment, with no association with emotional exhaustion, depersonalisation, anxiety or depression. Hastings and Horne (2004) concluded that staff experience a range of positive perceptions about their work, and this warranted further explanation. There does not appear to be any published research building on the findings of Hastings and Horne (2004) and recently this theoretical framework has been identified as an area for further investigation (Hastings, 2010; Rose, 2011).

1.8. The Research Study

The present study is interested in building on the findings of Hastings and Horne (2004) to explore both positive and negative aspects of support work with adults with intellectual disabilities and challenging behaviour. Through the structure provided by Lawton et al.'s (1991) two factor model of caregiving appraisal and psychological well-being, cognitive-behavioural theory of work stress (Lazarus & Folkman, 1984) and evidence from the research literature on staff burnout, a preliminary exploration of a theoretical staff well-being model will be undertaken.

1.8.1. Conceptualising the model. Stressors, resources, appraisals and outcome were identified from empirical research exploring factors associated with staff stress, burnout and well-being.

1.8.1.1. Stressors. Clients' disability and type of challenging behaviour have both been identified as predictors of symptoms of burnout (Chung & Harding, 2009; Gray-Stanley & Muramatsu, 2011; Hatton et al., 1995; Hensel et al., 2012; Mills & Rose, 2011; Vassos & Nankervis, 2012). Organizational demands in the form of work overload and role ambiguity have also been found to be positively associated with staff burnout (Gray-Stanley & Muramatsu, 2011; Vassos & Nankervis, 2012).

1.8.1.2. Resources. Emotion-focused coping strategies (e.g. wishful thinking) were found to relate to higher levels of emotional exhaustion, and to mediate the relationship between work demands and emotional exhaustion, whilst problem focused coping was found to predict personal accomplishment (Devereux, Hastings, Noone, Firth et al., 2009; Hatton et al., 1999; Mascha, 2007; Mitchell & Hastings, 2001). Mutkins et al. (2011) found that higher social support was related to higher personal accomplishment.

1.8.1.3. Appraisals. For intellectual disability staff the emotional exhaustion dimension of burnout is focused on the relationship or feelings of staff towards services users (Rose et al., 2004). Lower levels of staff satisfaction with sources of support, job, and perceived organisational support have been associated with higher levels of burnout (Gray-Stanley & Muramatsu, 2011; Mascha, 2007; Mutkins, et al., 2011). Personal accomplishment is recognised as a general satisfaction scale focussed on feelings about one's job (Rose et al., 2004). Higher levels of exposure to aggressive behaviour, more control over challenging behaviour, affective organisational commitment, job satisfaction, emotional intelligence, and prosocial motivation have all been positively associated with personal accomplishment (Duran et al., 2004; Mills & Rose, 2011; Hensel et al., 2012; Hickey, 2014).

1.8.1.4. Outcomes. Staff experience both positive and negative attitudes and emotions towards adults with intellectual disabilities (Bell & Espie, 2002). Negative emotional responses of staff to challenging behaviour, and staff symptoms of depression have been associated with higher levels of burnout (Horne et al., 2004; Mutkins et al., 2011; Rose & Rose, 2005; Thomas & Rose, 2010). Positive emotions were found to be significantly associated with personal accomplishment at work (Hastings & Horne, 2004; Thomas & Rose, 2010). Positive aspects of psychological well-being were not correlated with the two negative dimensions of burnout (Hastings & Horne, 2004).

1.8.2. The staff well-being model. A new staff well-being model (SWM) is hypothesised, shown in Figure 1.4, using significant associations found during empirical research investigating staff stressors, resources, appraisals, and outcome. The severity of intellectual disability and perception of challenging behaviours of the service users being supported, and organisational demands are identified as objective stressors. Resources are conceptualised as organisational and personal. The organisational resources are perceptions of organisational support. The personal resources are social support and coping mechanisms used to manage stressful situations: practical coping and wishful thinking.

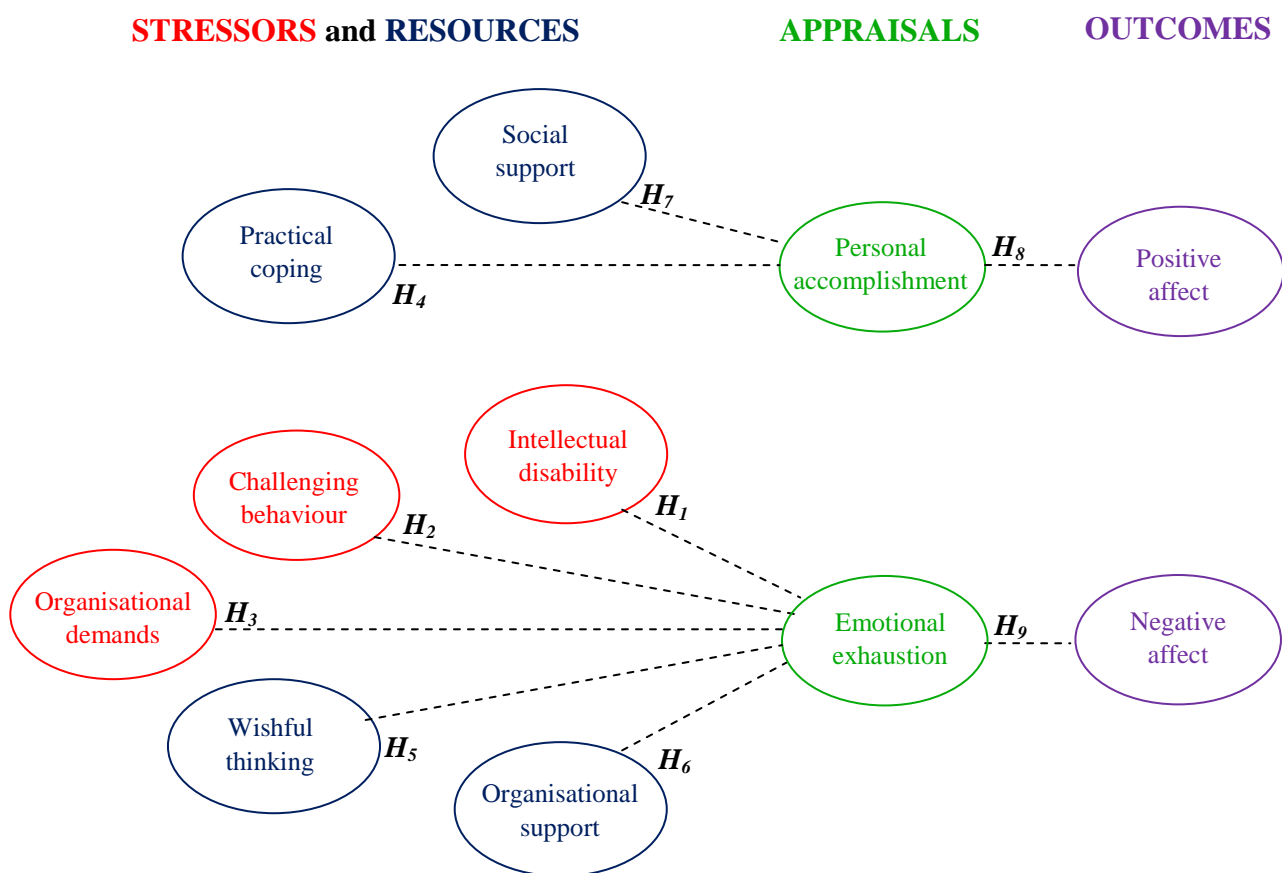


Figure 1.4. The conceptual Staff Well-being Model and hypothesised relationships. H_n : hypothesised pathways. Original in colour.

A support worker's evaluation of the on-going quality of their own work is conceptualised as the secondary appraisal, mediating between the demand of support work

and the outcome of psychological well-being. Two secondary appraisals are identified as possible evaluations of support work: satisfaction and burden. Subjective perceived gains and satisfaction with one's job is represented by personal accomplishment. Subjective burden attributed directly to support work is represented by emotional exhaustion. Psychological well-being is represented by the two outcomes of positive affect and negative affect.

This is a cross-sectional correlation model that will guide the hypotheses and the data analysis to follow. Testing the staff well-being model for goodness of fit would require data from more than 200 participants, an ambitious recruitment number for this thesis study timeline, but a possibility for future studies.

1.8.3. Study aim. The aim of this preliminary study is to explore nine hypothesised relationships between staff well-being model variables along two distinct pathways through which staff appraisals of personal accomplishment and emotional exhaustion are associated with different dimensions of well-being.

1.8.4. Research questions and hypotheses.

Research Question 1. Are there associations between stressors and appraisals as conceptualised in the staff well-being model?

Hypothesis 1. Severity of intellectual disability is associated with emotional exhaustion.

Hypothesis 2. Number of challenging behaviours are associated with emotional exhaustion.

Hypothesis 3. Organisational demands are associated with emotional exhaustion.

Research Question 2. Are there associations between resources and appraisals as conceptualised in the staff well-being model?

Hypothesis 4. Practical coping is associated with personal accomplishment.

Hypothesis 5. Wishful thinking is associated with emotional exhaustion.

Hypothesis 6. Organisational support is associated with emotional exhaustion.

Hypothesis 7. Social support is associated with personal accomplishment.

Research Question 3. Are there associations between appraisals and outcomes as conceptualised in the staff well-being model?

Hypothesis 8. Personal accomplishment is associated with positive affect.

Hypothesis 9. Emotional exhaustion is associated with negative affect.

Chapter 2: Method

2.1. Chapter Introduction

This chapter outlines the research methods used to investigate the present study's research questions and hypotheses. A total of 47 participants were recruited through organisations that provide services for adults with intellectual disabilities and challenging behaviour and through online advertisements. The recruitment procedure and selection criteria used are outlined with details of the response rate and study sample. Creation of the online survey is described with information provided about the validity and reliability of the eight standardised self-report measures used. The procedure from participant recruitment to completion of the online survey is then reported. Lastly ethical considerations for conducting an online research survey with adult participants is discussed.

2.2. Design

The study employed a cross-sectional correlational design in the form of an internet survey. Quantitative data was collected at one point in time using structured self-report questionnaire measures.

2.3. Participants

2.3.1. Power analysis and sample size. Effect sizes for hypotheses in this study were identified from previous research on burnout, psychological well-being and staff variables: .36 for hypothesis one and two (Mills & Rose, 2011; Vassos & Nankervis, 2012), .45 for hypothesis three (Vassos & Nankervis, 2012), .5 for hypothesis five (Mascha, 2007), 0.53 for hypothesis six and seven (Mutkins et al., 2011), .61 for hypothesis eight (Thomas & Rose, 2010), and .71 for hypothesis nine (Thomas & Rose, 2010).

A priori power calculations were conducted using G Power (Faul, Erdfelder, Lang & Bunchner, 2009). Seven comparisons were planned in the original study proposal, therefore the likelihood of making a type I error was adjusted using the Bonferroni approach (dividing

$\alpha = .05$ by the number of planned comparisons). For one directional tests of correlation, with the smallest effect size (r) of 0.36, an error probability (α) of .007, and power of 0.80 a total sample size of 77 participants was required.

The number of comparisons increased from seven to nine after the initial *a priori* sample size calculation when it became apparent that two of the original hypothesis had four comparisons. In the original study proposal hypothesis one and two, and hypothesis six and seven were combined. Adjusted p -values were calculated *post-hoc* to compensate for the nine comparisons (a full description of the method used is provided in section 3.4).

2.3.2. Inclusion and exclusion criteria. Participants were selected by the criteria: working in a community service for adults with intellectual disabilities, employed in a support role, access to the internet, computer skills to navigate to and around the survey, and written English skills. Participants were excluded if they did not identify their current job role involving direct support work, if they identified working in secure or inpatient services, and if they did not press the option at the end of the survey to submit their answers.

2.3.3. Recruitment. Recruitment of participants was undertaken through organisations providing services for adults with intellectual disabilities and through online advertisements posted on internet forums.

2.3.3.1. Recruitment through organisations. Organisations were identified within the local geographical area through the County Council website, and through the knowledge of intellectual disability health practitioners. Organisations were selected that met two criteria:

1. Services in the community e.g. residential, supported living, day, study, or activity services.

2. Services registered for adults with intellectual disabilities and challenging behaviours.

Services were excluded if they were managed by the National Health Service, if they provided inpatient or nursing care, and if the service was predominantly for other social care

needs such as the elderly or mental health difficulties. In the local area 15 organisations were identified that had more than one service meeting the selection criteria. Outside of the local area nine organisations were identified through attendance at an Intellectual Disability conference and using the author's knowledge. Organisations were contacted by telephone, email and face to face and presented with information about the study (see Appendix B). Organisations were followed-up once by telephone and email if no initial reply. If an organisation responded with interest in participating communications continued through face to face meetings, telephone and email contact. A total of eight organisations provided verbal and written permission for the study to be advertised in their services.

The study was advertised within organisations through face to face meetings with staff teams, through an advertising poster placed on staff noticeboards (see Appendix B), and through distribution of a recruitment letter amongst staff (see Appendix B). The method of recruitment used varied per organisation and subsequently through individual services within that organisation. The poster and recruitment letter appealed for support staff to participate in a psychology study investigating how staff cope with the demands of support work and how this impacts on their job satisfaction and well-being. A brief overview of the research study was provided, what participation would involve, the web address of the internet study, and details of a prize draw participants could enter. Participants were offered the chance to enter a prize draw after they had completed the survey, through which they had the chance to win one of two Love2shop vouchers worth £50 each. This was to act as an incentive for people to take part in the research study. The advertising poster had the web address of the internet survey on tags that could be removed, and a Quick Response code for the web address that could be scanned into a smart phone or tablet to access the survey directly.

2.3.3.2. Recruitment through online advertisements. Online forums for people working with adults with intellectual disabilities were identified through internet search

providers and through the researcher's knowledge. Where required permission was sought from the forum administrator to post an advertisement for the study. A study advertisement was posted on five forums with a link to the online survey (see Appendix C). The advertisement and link were subsequently re-posted in other forums by people interested in sharing the information. Individuals who contacted the researcher with an interest to share the study details with colleagues were sent an email with the study information for organisations.

2.3.3.3. Response rate. Due to the recruitment methods used it is not possible to calculate how many people responded to the study advertisements. A total of 459 recruitment letters were delivered by post or during face to face meetings to services for distribution amongst staff. Two organisations and nine individual services requested the recruitment letter to be sent via email and it is not known how many staff were subsequently provided with a letter. It is impossible to ascertain how many people viewed an online advertisement or viewed the first page of the online survey. The overall successful response rate can therefore not be calculated.

In total, 256 people accessed the online survey and went past the first page detailing the selection criteria to view the participant information sheet. After this, 117 (45.7%) completed the consent form to progress to the questionnaires, 87 (34%) started or completed the demographic information, and 57 (22.3%) proceeded to start or complete at least one survey measure. A total of 50 participants completed all of the questionnaires and agreed to submit their answers to take part in the study; a completion rate of 19.5%. Response rates for similar studies with staff in intellectual disability services using paper surveys have ranged from 25% to 75% (Hatton & Emerson, 1995). In recent studies using both paper and electronic copies of a survey, a response rate of 25% was reported by Mutkins et al., (2011), whilst Hickey (2014) reported a range from 4% to 99% within different agencies.

2.3.4. Sample. Of the 50 participants who completed the entire survey three were removed. Two for working in secure or inpatient services, and one for not providing any direct support during their last five working days. A total of 47 participants were included in the data analysis; complete demographic information is given in Table 2.1.

Table 2.1.

Descriptive characteristics of participants

| Demographic Information | Participants <i>n</i> | Percentage (%) | Mean (<i>SD</i>) | Range |
|---|--------------------------|-------------------|-----------------------|---------------|
| Age (years) | 41 | | 39.45 (13.48) | 19.05 – 68.17 |
| Prefer not to answer | 6 | | | |
| Gender | | | | |
| Male | 14 | 29.8 | | |
| Female | 33 | 70.2 | | |
| Marital Status | | | | |
| Single | 19 | 40.4 | | |
| Cohabiting/Married/ Civil Partnership | 27 | 57.5 | | |
| Separated/Divorced/ Dissolution of Civil Partnership | 1 | 2.1 | | |
| Current Job Title | | | | |
| Support Worker | 25 | 53.2 | | |
| Night Support Worker | 1 | 2.1 | | |
| Senior Support Worker | 9 | 19.2 | | |
| Managerial position | 9 | 19.2 | | |
| Training position | 3 | 6.3 | | |
| Current Working Hours | | | | |
| Full Time | 31 | 66.0 | | |
| Part Time | 8 | 17.0 | | |
| Bank | 7 | 14.9 | | |
| Prefer not to answer | 1 | 2.1 | | |
| Work Experience | | | | |
| Current Job (years) | 46 | | 6.68 (6.40) | 0.33 – 24.50 |
| Prefer not to answer | 1 | | | |
| Total experience in field (years) | 42 | | 10.05 (8.38) | 0.42 – 35.00 |
| Prefer not to answer | 5 | | | |
| Education and Qualifications | | | | |
| NVQ2 or equivalent | 3 | 6.4 | | |
| NVQ3 or equivalent | 15 | 32.9 | | |
| NVQ4 or equivalent | 19 | 40.4 | | |
| NVQ5 or equivalent | 8 | 17.0 | | |
| Prefer not to answer | 2 | 4.3 | | |
| Training on Challenging Behaviour | 4 | 8.5 | | |
| No formal training | 15 | 31.9 | | |

| | | |
|---------------------------------|----|------|
| One or Two courses | 27 | 57.5 |
| Three or more courses | 1 | 2.1 |
| Prefer not to answer | | |
| <hr/> | | |
| Intellectual Disability Service | | |
| Residential/supported living | 34 | 72.3 |
| Day or activity service | 12 | 25.5 |
| Study service | 1 | 2.1 |
| Prefer not to answer | 0 | 0 |
| <hr/> | | |
| Heard about survey | | |
| Organisation | 23 | 48.9 |
| Friend or family | 15 | 31.9 |
| Internet advertisement | 9 | 19.1 |
| Prefer not to answer | 0 | 0 |

The majority of respondents were female (70.2%), cohabiting or married or in a civil partnership (57.5%), working full time (66.0%), support workers (53.2%), and had attended three or more courses about challenging behaviour (57.5%). Participant age ranged between 19 years and 68 years. Experience working in the intellectual disabilities field ranged between 5 months and 35 years, with between 4 months and 24 years in current employment. Most participants reported having qualifications at the level of NVQ3 (32.9%) or NVQ4 (40.4%). Job role varied with 26 support workers or night support workers, nine senior support workers, nine in a managerial role, and three in a staff training role. All participants undertook at least one direct support task with service users during their last five working days.

2.4. Measures

The online survey consisted of a brief demographic information section followed by eight self-report measures (see Appendix D). Each measure is described below with details of psychometric properties and a rationale for its use in this study. The internal reliability coefficient (Cronbach's alpha) should be .7 or higher. A mean inter-item correlation on scales of between 0.2-0.4 is considered appropriate for personality scales (Briggs and Cheek, 1986).

2.4.1. Internet survey. An internet survey was used to recruit an anonymous and confidential, geographically diverse sample at low cost. The questions asked to participants

about their job and organisation necessitated reassurance that the results would not be fed back to employers. An internet survey allowed this, to allow participants to complete the measures in their own time and space without the chance of anyone in their employment finding out. Challenges of internet research include sample biases of internet users, self-selection and dropout, and lack of control over data-collection (Kraut et al., 2004). This includes verifying participant's identities, and anonymity leading to potential frivolous completion. To control for these challenges participants were required to disclose their current job role. Participants were asked about the type of service they worked in and how they found out about the study. Participant's responses were systematically checked to identify anomalous data patterns.

2.4.2. Demographic information. The first section of the survey asked four questions about demographic information: age, gender, marital status, education and qualifications. With seven subsequent questions about employment information: current job title, current working hours, length of experience in current job, length of experience working with adults with intellectual disabilities and challenging behaviour, training on challenging behaviour, and description of the service employed in.

These demographic characteristics were collected to compare the sample in the current study with samples from similar research studies and to generalise the results. Participants had the option not to answer these questions except for their current job title which was part of the selection criteria. Participants were asked how they found out about the research (employer, family or friend, internet advertisement) as a method to check for bias of the different recruitment methods.

2.4.2.1. Support given to service users. Support given to clients is of interest in this study as a demographic variable and to check that participants meet the study selection criteria and are undertaking direct support work. The support given by staff to service users

was measured using an adapted version of the measure used by Lawton et al., (1991). The measure was adapted for the purpose of this study to accommodate the support provided by staff to adults within intellectual disability services. The item grooming included the prompt ‘making hair, face or skin look nice,’ ambulation became ‘moving from place to place e.g. support to walk or move, using manual handling techniques,’ transportation included the prompt ‘driving a car, using public transport’ and the item ‘to go into the community e.g. shops, leisure activities, college’ was added.

Participants were asked how frequently they provided this support to a service user over their last five working days, with four response options from ‘no days’ to ‘four or five days.’ In the Lawton et al. (1991) model the amount of help given by caregiver increased burden, and was associated with greater caregiver satisfaction. Previous research in this area has not investigated support given so there is no clear indication on how this variable might correlate with job satisfaction or burnout in intellectual disability staff.

2.4.3. Stressors. The staff stressors investigated were service user intellectual disability and challenging behaviour, and organisational demands.

2.4.3.1. Intellectual disability. Participant perception of the category of intellectual disability of the service users they supported was gathered using ICD-10 (World Health Organisation, 2010) criteria. Participants were asked to select the most severe category of intellectual disability they worked with from the options mild, moderate, severe, and profound.

2.4.3.2. Challenging behaviour. The Checklist of Challenging Behaviour (CCB, Harris, Humphreys, & Thomson, 1994) measures observed behaviours exhibited by a person in the last three months. The CCB consists of an aggressive behaviour scale with 14 items rated in terms of frequency, management difficulty, and severity, and a scale for 18 other types of behaviour rated in terms of frequency and management difficulty. Frequency is

measured on a five-point scale rating the occurrence of the behaviour. Severity is a five-point scale using the degree of tissue damage and nursing or medical attention required as criteria. Management difficulty is a five-point scale based on the individual rater's perception of their own difficulty in managing a challenging situation.

The CCB authors report reliability comparisons that support the use of this measure as a survey instrument. Inter-rater and test-retest reliability ranged between 76.9% ($r_s = .702$) and 90.8% ($r_s = .88$) for the aggressive behaviour checklist, and between 74.8% ($r_s = .682$) and 86.7% ($r_s = .689$) for the other behaviours checklist (Harris et al., 1994). Content validity was reported by the authors as high, as the main objective of the measure was to identify the range of challenging behaviours shown by individuals.

The CCB has been used in similar research studies by Jenkins et al., (1997), Bailey et al., (2006), Mills & Rose, (2011), and Rose et al., (2013). The checklist was adapted for the purpose of this study, with participants asked to identify how frequently over the last three months any service user they worked with exhibited each behaviour. The severity scale for 'aggressive behaviours' was removed because it was not needed to calculate how many behaviours a participant perceived to be challenging. Based on the method described by Jenkins et al. (1997, through personal discussion with CCB author Harris) a behaviour is challenging when a frequency score is equal to or greater than *three* and management difficulty score is equal to or greater than *four*. In this study participants were asked to rate each behaviour for frequency and management difficulty, and subsequent scoring identified the total number of behaviours each participant perceived to be challenging. Total score was therefore between 0 and 32 behaviours.

2.4.3.3. Organisational Demands. The Staff Stressor Questionnaire (SSQ, Hatton et al., 1998) contains 33-items assessing potential stressors derived from previous research of staff stress in services for people with intellectual disability. The 33-items identify

organisation demands within seven subscales: lack of staff, lack of resources, bureaucracy, user challenging behaviour, poor user skills, low-status job, and work-home conflict.

Participants rate on a 5-point Likert scale from 'not at all' to 'a great deal' the degree to which they find each item stressful.

The SSQ authors report adequate internal reliability with Cronbach's alpha of 0.7 or higher for five of the subscales (not bureaucracy or work-home conflict) and mean inter-item correlations at the acceptable level between 0.2 and 0.4. Face, construct and criterion-related validity of the seven SSQ subscales were also supported through the authors' preliminary evaluation (Hatton, Rivers, Mason, Mason, Kiernan et al., 1999). The SSQ has been identified as a useful tool for providing information about links between potential stressors and outcome for staff in services for people with intellectual disability (Devereux et al., 2009; Hatton, Emerson et al., 1999).

2.4.4. Resources. The staff resources investigated were organisational support, social support, and coping mechanisms.

2.4.4.1. Organisational support. Organisational support was measured using the Staff Support and Satisfaction Questionnaire (3SQ, Harris & Rose, 2002). This is a 21-item measure of staff perceptions of support in the workplace which participants rate on a five-point Likert scale. The questionnaire can be broken down into five sub-scales: role clarity, coping resources, risk factors, supportive people, and job satisfaction. The 3SQ authors report the questionnaire showed good test-retest reliability ($r = .82$), with the data supporting internal reliability (Cronbach's alpha of 0.90) and validity (Harris & Rose, 2002). All five of the subscales from the 3SQ were used in this study to obtain a total organisational support score of between 21 and 105. The 3SQ has been used to measure intellectual disability staff perceptions of organisational support and satisfaction in previous studies (Devereux et al., 2009; Hodgkins et al., 2005; Mascha, 2009).

2.4.4.2. Social support. The Social Support Questionnaire Shortened Version (SSQ6, Sarason, Sarason, Shearin & Pierce, 1987) investigated the number of perceived social supports in participant's lives and the degree to which they are personally satisfying. This questionnaire asks six questions to identify who people can really count on in five situations such as 'Who can you really count on to distract you from your worries when you feel under stress?' and one question asking 'who accepts you totally, including both your worst and your best points?' Participants are asked to identify the names of support persons for each question with space to list up to nine people. Participants are then asked to rate the social support available to them on a scale ranging from 'very satisfied' to 'very dissatisfied.' This provides a score for the number of support people listed between 0 and 9 and a satisfaction score of between 1 and 6. The scores for all six items are summed and then divided by six to get an average score for support *number* and support *satisfaction*.

The SSQ6 authors reported highly satisfactory test-retest reliability, high internal reliability (coefficient α) ranging between .90 to .93 for number and satisfaction, and good convergent and divergent validity (Sarason et al., 1987). The SSQ6 explores an individual's perception about what people are available to care about them and who would try to help if help were needed. Sarason et al. (1987) identify this may be the important value of social support in promoting physical and psychological health compared with the specific function of social support.

The SSQ6 will be adapted for the purpose of this study with participants asked to provide a number from 0 to 9 for the number of social supports they have available for each item instead of asking them to name each person. The SSQ6 has been used in a previous study investigating burnout and intellectual disability staff social support (Mutkins et al., 2011).

2.4.4.3. Coping mechanisms. The Shortened Ways of Coping (Revised) Questionnaire (SWC-R, Hatton & Emerson, 1995) was used to investigate how participants cope with problems at work. The SWC-R was developed from the Folkman and Lazarus (1985) Ways of Coping (Revised) questionnaire. The SWC-R has 14-items representing thoughts and actions which can be used to cope with stressful situations that participants rated on a 4-point Likert Scale from 'not used' to 'used a great deal.' The scale can be divided into two 7-item subscales that measure practical coping and wishful thinking.

Hatton and Emerson (1994) examined the reliability and some aspects of validity of the SWC-R with six different samples of direct care staff in residential services for people with intellectual disability. The authors reported both subscales to have adequate internal reliability compared to previous studies using full-length versions of the questionnaire, with alpha reliability values of .76 for practical coping and .65 for wishful thinking. Mean inter-item correlations were .31 for the practical coping subscale and .22 for the wishful thinking subscale, and a mean inter-scale correlation between practical coping and wishful thinking subscales was found to be .24. The SWC-R was developed specifically with direct care staff working within residential services for adults with intellectual disabilities, and has been used as a measure in studies of staff stress and burnout (Devereux, Hastings, Noone, Firth et al., 2009; Hatton et al., 1995; Hatton, Emerson et al., 1999; Mascha, 2007; Mitchell & Hastings, 2001).

2.4.5. Appraisals. The Maslach Burnout Inventory-Human Services Survey (MBI-HSS, Maslach, Jackson, & Leiter, 1996) was used to measure personal accomplishment (appraisal of job satisfaction) and emotional exhaustion (appraisal of job burden). The MBI-HSS is a 22-item measure of burnout in human services, made up of three scales. A full description of the MBI-HSS was provided in the introduction but a brief overview is provided again here. The 9-item emotional exhaustion subscale measures feelings of being emotionally

overextended and exhausted. The 8-item personal accomplishment subscale measures feelings of competence and successful achievement in work.

Participants rated their experience of each item on a 7-point frequency scale from '0 = never' to '7 = everyday.' Total scores on the two subscales will be reported with higher scores associated with greater reported feelings of each construct. Data collected on the depersonalisation subscale will be used descriptively to compare the participants in this study with normative data of the MBI-HSS and previous research with intellectual disability staff. The 5-item depersonalization subscale measures unfeeling and impersonal response towards recipients of one's service, care treatment or instruction.

The MBI-HSS has been reported to have good test-retest reliabilities, and a factor-analysis study with direct care staff working with people with intellectual disability reported Cronbach's alpha as 0.87 for emotional exhaustion, 0.68 for depersonalisation, and 0.76 for personal accomplishment (Hastings, Horne, & Mitchell, 2004). The MBI-HSS is considered the most widely established measure of burnout (Skirrow & Hatton, 2007) and it has been used in many studies with staff in intellectual disability services (as detailed in the literature review in sections 1.6.2 and 1.6.3). Permission and licences were obtained from Mindgarden to use the copyrighted measure for this online study (see Appendix E).

2.4.6. Outcomes. The Positive and Negative Affect Schedule (PANAS, Watson, Clark & Tellegen, 1988) was used in this study to measure positive affect and negative affect. The PANAS consists of two 10-item scales, positive affect (PA) and negative affect (NA) and was developed through factor analyses of 60 positive and negative terms. Internal consistency reliabilities of the scales are high, with Cronbach's alpha ranging from .86 to .90 for PA and .84 and .87 for NA. The two scales have low correlations between them sharing approximately 1% to 5% of their variance. In terms of related constructs the Beck Depression

Inventory (Beck, Ward, Medelson, Mock, & Erbaugh, 1961) was found by the authors to correlate with the NA scale, and negatively correlate with the PA Scale.

The PA scale has been found to relate to external variables of social activity and diurnal variation, whereas the NA scale has been found to be significantly related to perceived stress and does not show circadian pattern (Watson, 1988). The PANAS was used in this study because it measures both affective components, compared with measures of psychological well-being that only measure negative affect or depression such as the Beck Depression Inventory-II (Beck, Steer, & Brown, 1996) and Patient Health Questionnaire-9 (Spitzer, Kroenke, & Williams, 1999). Participants were asked to rate to what extent they had felt each item during the past week on a 5-point Likert scale ranging from ‘very slightly or not at all’ to ‘extremely.’

2.4.7. Pilot study. A simple pilot study was conducted to see how support workers might find navigating the internet survey, whether the instructions and questionnaires made sense and could be followed without further explanation from the researcher, and how long the survey would take to complete. Three support workers known to the researcher completed the survey, all were computer literate and one did not have English as their first language. The three surveys completed during the pilot study were not used as part of the main study findings. The three support workers however had the option to participate anonymously in the study once the survey went live.

All three participants of the pilot study fed back that the survey took approximately 30 minutes to complete, that they could complete and understand the survey without further instruction. Feedback suggested that the questionnaires made sense and participants were able to navigate around the survey site. The three participants were able to identify a category of intellectual disability for the service users they supported. It was not established whether the participants understood the definitions of the ICD-10 (World Health Organisation, 2010)

criteria for mild, moderate, severe, and profound intellectual disabilities. The three participants were all able to classify their services users into one of these categories based on their knowledge of the service users and information provided to them within their service setting.

2.5. Procedure

Participants were recruited through organisations providing services for adults with intellectual disabilities and online advertisements posted in internet forums. Within organisations participants were recruited through face to face meetings, study posters placed on staff noticeboards, and study recruitment letters distributed amongst staff.

The internet survey (see Appendix D) was developed through the survey creator SmartSurvey (<http://www.smartsurvey.co.uk/>) an online survey builder. The first page of the survey provided a brief overview of what the study would involve for the participant. The second page provided the participant information sheet in different formats. The participant information sheet was detailed in full on the webpage, a word document copy was also available to be downloaded and saved, and a recorded verbal version could be listened to. Participants were asked to read the participant information sheet and tick to state that they had read this and wanted to continue to the consent form. If people read through the participant information sheet and did not want to proceed, they could choose the option to leave the research study through which they would be directed to the study debrief page. The third page had the consent form where participants were asked to confirm three statements in order to proceed to the questionnaires. People who did not confirm all three statements were unable to participate in the survey and were directed to the end of study debrief page.

Participants were then asked to complete the survey measures which took an average of 30 minutes. Participants had the option to save their completed answers at any time in order to leave the survey and finish at another time. Through this option participants were

asked to provide an email address to which SmartSurvey emailed a web link. After completing all the survey measures participants were taken to a page which asked them to select one of two options: to submit their answers to the questionnaires and participate in the study, or to not submit the answers and withdraw from the study. If the latter option was chosen the person would be directed to the end of study debrief page. If the participant agreed to submit their answers to the questionnaire they were directed to a different debrief page which also provided the web address of where they could read a summary of the results when the research was completed. Following this, participants accessed the prize draw page where they were asked to provide a contact name and email address if they wanted to take part. Participants were provided with the option to not participate in the prize draw and exit the survey, or tick to state they agreed to take part and exit. Both these options directed participants to the end of survey debrief page.

2.6. Ethical Considerations

2.6.1. Approval. Ethical approval was obtained in principle from the University of East Anglia Faculty of Medicine and Health Sciences (UEA FMHS) Ethics Committee prior to contacting organisations (see Appendix F). The UEA FMHS Ethics Committee required that written permission from organisations was obtained prior to data collection, and that a copy of this statement was forwarded on to the Ethics Committee. During three face to face meetings with organisation representatives study advertising posters and recruitment letters were provided after verbal permission was obtained, with the author requesting written permission to be emailed. One organisation did not provide written authorisation after this and subsequent email requests. Seven organisations provided written permission which was forward on to the Ethics Committee.

2.6.2. Consent. Participants were provided with three different modes of the participant information sheet: on page two of the internet survey prior to the consent form, a

word copy was available for participants to open and save for their records, and a recorded spoken version was available to listen to. Hard copies of the participant information sheet were also provided to organisations along with advertising posters and recruitment letters. The participant information sheet had the researcher's telephone and email contact information, and the research supervisors email contact information, if participants wanted to ask and have answered any questions about the study. Participants were required to select a radio button to state that they had read or listened to the participant information sheet and wanted to proceed to the consent form.

The consent form was on page three of the internet survey prior to the questionnaires. Participants were required to select the radio button next to three statements confirming that they had read the participant information sheet and had time to consider the information and to ask any questions, confirming that they understood that participation was voluntary and that they would be free to withdraw from the study by not submitting their answers to the questionnaires, and confirming that they agree to take part in the study. Participants were asked to select a radio button stating that they had either ticked all three boxes and would like to proceed to the questionnaires, or they had not ticked all three boxes and therefore would be unable to participate in the survey.

2.6.3. Confidentiality. Participants were not required to provide any identifying information about themselves, the organisation they worked for, or the clients they worked with. The researcher did not have contact with any participants unless the participant chose to telephone or email to ask questions. Data provided by the participants on the internet survey was stored by the survey provider SmartSurvey which could only be accessed by the author through a username and password. Data was subsequently moved from SmartSurvey to a spread sheet for analysis and stored on the author's password protected encrypted memory stick. The data were managed in accordance with the Data Protection Act and after

completion of the study are stored for five years within an offsite archiving company used by the University of East Anglia's Medical School.

Participants had the option to provide a contact name and email address if they wanted to take part in the prize draw. The details of participants who entered the prize draw were stored in a separate file to their survey responses to maintain confidentiality. Once the total number of participants had been recruited the survey was closed and the prize draw took place. Two participants were selected at random and were contacted via the email address provided. The participants were asked to provide the details of an address to which the £50 gift card could be sent along with a receipt and a stamped address envelope. Two people responded to this email with their address details and were sent their prize in the post. The names and emails of all the people who entered the prize draw were then deleted. The two winners were asked to sign the receipt to confirm they had received the voucher and return this in the envelope provided.

2.6.4. Internet Security. SmartSurvey state on their website that they do not use the information collected in survey's in any way. SmartSurvey stated they meet Hacker Safe certification and they have firewall to prevent hackers from entering their system and searching files and information. The internet survey was developed using Secure Sockets Layer (SSL) encryption which protects personal data being entered into the survey.

2.6.5. Debrief. All the people who accessed the internet survey would have been directed to the end of survey debrief page if they followed the options provided. The debrief page thanked the person for their interest in the research study and stated that people should contact the researcher if they has any questions or found completing the survey distressing. The debrief advised people to contact their general practitioner or NHS Direct if they were feeling stressed, anxious, depressed, overwhelmed of finding it difficult to cope. Telephone and online contact details were provided for NHS direct, the Samaritans, and MIND services,

and the online information for the local and national IAPT services were provided. The author did not receive any contact from participants who were in distress after accessing the survey.

A different debrief page was provided for participants who agreed to submit their answers to the survey and take part in the study. This debrief page had the same information detailed above and provided a web address that participants could access in June 2014 to view a summary of the study results.

Chapter 3: Results

3.1. Chapter Introduction

This chapter outlines the results from the present study in line with the research questions and hypotheses. Firstly an explanation of preliminary data analysis is provided. Descriptive statistics are then reported for the main study variables under the headings of stressors, resources, appraisal and outcome. The statistical tests used to analyse the main study hypotheses are presented with the results of each comparison. The method used to adjust the *p*-values for multiple comparisons is subsequently outlined and the significant findings highlighted. Lastly, details of exploratory post hoc analyses are provided along with a summary of the results.

3.2. Data Analysis

Data analysis was performed using PASW Statistics for Windows Version 18.0 (SPSS 2009). Before hypothesis testing, the main variables were investigated to test their suitability for parametric statistical analysis. A series of box plot and histograms were developed for the key variables to explore distribution (plots can be found in Appendix G). One-sample Kolmogorov-Smirnov tests were also used to ascertain whether each variable was normally distributed.

Using these plots outliers were found on the ‘challenging behaviour’ scale (Participants No. 19, 26, 28, 32, 36, 38), ‘social support satisfaction’ scale of the SSQ6 (Participants 16, 17, 19, 27, 30, 32, 36 and 45), ‘depersonalisation’ of the MBI-HSS (Participant No.34) and ‘negative feeling’ of the PANAS (Participant No.15). A floor effect of the data was identified on the ‘depersonalisation’ scale and for ‘number of challenging behaviours’. Large numbers of participants scored zero (n=18 and n=30 respectively) which had positively skewed the data. The ‘depersonalisation’ data was planned to be used only for descriptive purposes and not analysis therefore no alterations were required. Winorizing the data reduces bias and

improves accuracy by replacing outliers with the next highest score that was not an outlier (Field, 2013). It was believed that changing the outliers of the challenging behaviour data would not alter the distribution of the data but leaving them in might bias the results in favour of the hypothesis. The decision was made to categorise ‘number of challenging behaviour’ into ‘yes’ and ‘no’ groups and to compare the group means instead of undertaking correlational analysis.

Whilst scoring the SSQ6 the ‘Social support satisfaction’ scale was found to have five negative scores which were anomalies due to incorrect completion of the survey by five participants. When these five data were removed the box plot showed two outliers (Participants No 16 and 36) and the data deviated from normal $D(42) = .207, p < .001$, with a significant positive skew, $z_{\text{skewness}} = 4.334, p < .001$. The SSQ6 has two subscales therefore it was decided to drop ‘social support satisfaction’ from further analyses and use only the ‘social support number’ to measure the main variable of social support. When the outlier on the ‘negative scale’ was replaced using the winorizing method explained above the distribution remained deviated from normal, therefore the outlier was left and non-parametric tests were used.

Through looking at the plots and Kolmogorov-Smirnov tests the ‘wishful thinking’ subscale of the SWC-R deviated significantly from normal $D(47) = 0.194, p < .001$. Both the ‘emotional exhaustion’ scale of the MBI-HSS and ‘negative affect’ scale of the PANAS were negatively skewed and deviated significantly from normal $D(47) = .178, p = .001$ and $D(47) = .045, p = .045$ respectively. Transformation of data can combat problems with normality and linearity (Field, 2013) in order to reduce bias. Data would need to be transformed on both scales to identify a relationship between the variables. As emotional exhaustion is a study variable in five of the comparisons this would mean transforming most of the data. It was

decided to leave all the data as it was and to use non-parametric tests where violations of assumptions had occurred.

The 'staff stressor' and 'organisational support' subscales showed some positive (0.490) and negative (-0.640) skew respectively. The skewness values were converted into z-scores and compared to a normal distribution value of 0. Both z-scores were found to be less than 1.96, therefore not significant. These scales along with 'practical coping' on the SWC-R, 'job satisfaction' on the 3SQ, 'social support number' on the SSQ6, 'personal accomplishment' on the MBI-HSS, and 'positive affect' on the PANAS were all identified as meeting the assumptions for parametric tests.

3.3. Descriptive Statistics

Descriptive statistics for each measure were conducted and can be found in Table 3.1. Means, standard deviations, median and inter-quartile range values are provided for all the main variables. Reporting the median is more appropriate than the mean for data that is not normally distributed. Where possible descriptive statistics and internal consistency of the scales found in this study were compared with normative data previously collected for each measure.

3.3.1. Stressors. The categories of intellectual disability were not evenly distributed with higher percentages of participants identifying the people they supported as having a severe (36.2%) or moderate (34.0%) intellectual disability and smaller percentages of profound (21.3%) and mild (8.5%). It was decided to group the categories into two, mild to moderate intellectual disability ($n = 20$) and severe to profound intellectual disability ($n = 27$) for further analyses. Following the criteria of what constitutes a behaviour as challenging on the CCB (frequency equal to or greater than 3 and management difficulty equal to or greater than 4) one-third of participants perceived the behaviours of adults they supported as challenging. Organisational demands were identified by the total score of the SSQ, which

Table 3.1.

Descriptive statistics for the main study variables.

| Measure | <i>n</i> | % |
|-------------------------------------|----------|------|
| Category of Intellectual Disability | | |
| Mild | 4 | 8.5 |
| Moderate | 16 | 34.0 |
| Severe | 17 | 36.2 |
| Profound | 10 | 21.3 |
| Checklist of Challenging Behaviour | | |
| Number of challenging behaviours | | |
| 0 | 31 | 66.0 |
| 1 | 4 | 8.5 |
| 2 | 3 | 6.4 |
| 3 | 3 | 6.4 |
| 4 | 1 | 2.1 |
| 5 | 1 | 2.1 |
| 6 | 1 | 2.1 |
| 7 | 2 | 4.3 |
| 15 | 1 | 2.1 |
| Experiences challenging behaviour | | |
| Yes | 16 | 34.0 |
| No | 31 | 66.0 |

| Measure | <i>n</i> | <i>M</i> | <i>SD</i> | Median | Interquartile Range |
|--------------------------------|----------|----------|-----------|--------|---------------------|
| Staff Stressor Questionnaire | 47 | 65.64 | 23.33 | 63.0 | 38.0 |
| Staff Support and Satisfaction | 47 | 79.60 | 17.48 | 81.0 | 25.0 |
| Shortened Ways of Coping - R | | | | | |
| Wishful thinking | 47 | 12.13 | 4.51 | 11.0 | 8.0 |
| Practical coping | 47 | 19.96 | 3.98 | 20.0 | 6.0 |
| SSQ6 | | | | | |
| Social support number | 47 | 3.85 | 1.86 | 3.67 | 2.83 |
| Social support satisfaction | 42 | 2.08 | 1.12 | 1.92 | 5.0 |
| MBI-HSS | | | | | |
| EE scale | 47 | 18.33 | 12.84 | 15.0 | 21.0 |
| DP scale | 47 | 3.05 | 3.99 | 1.0 | 6.0 |
| PA scale | 47 | 36.62 | 6.11 | 37.0 | 10.0 |
| PANAS | | | | | |
| Positive scale | 47 | 34.98 | 7.62 | 35.0 | 11.0 |
| Negative scale | 47 | 16.74 | 6.00 | 16.0 | 8.0 |

ranged from 35 to 113 (out of a maximum 165), with higher scores signifying greater demands. The SSQ measure was found to have high internal consistency with Cronbach's alpha value of .94 across the 33 items.

3.3.2. Resources. Organisational support was found to vary with participants reporting scores of 34 to the maximum of 105 on the 3SQ, with higher scores identifying higher staff support and satisfaction. On the SSQ6 participants identified having on average three or four social supports. With regard to ways of coping, both subscales of the SWC-R had good internal consistency. Compared with the psychometric properties reported by Hatton and Emerson (1995) Cronbach's alpha values were higher for the wishful thinking subscale (.81 compared with .65) and lower for practical coping (.74 compared with .76). Participant average score on the 'wishful thinking' scale ($M = 12.13$, $SD = 4.51$) was lower than the average score on the 'practical coping' scale ($M = 19.96$, $SD = 3.98$).

3.3.3. Appraisals. The mean scores (and standard deviations) for personal accomplishment as measured by the MBI-HSS was 36.62 (6.11) for 'personal accomplishment'. Due to the data on the 'emotional exhaustion' subscale not meeting the assumptions for parametric tests the appropriate descriptive statistic to report is a median of 15 (interquartile range = 21). The current study found excellent internal consistency for the 'emotional exhaustion' subscale ($\alpha = .91$), with acceptable levels for 'personal accomplishment' ($\alpha = .67$).

In terms of job burnout participants' scores on the three subscales of the MBI-HSS could be compared with the normative data collected by Maslach and Jackson (1981) and Skirrow and Hatton (2007). The means of the emotional exhaustion and depersonalisation subscales will be reported in order to compare it with the normative data on the MBI-HSS. For this purpose the mean (and standard deviation) was 18.33 (12.84) for 'emotional exhaustion' and 3.05 (3.99) for 'depersonalisation'. The means on the three subscales in this

study were similar to those in the meta-analysis of studies investigating intellectual disability staff reported by Skirrow and Hatton (2007) of 17.4, 33.8, and 5.0 for ‘emotional exhaustion’, ‘personal accomplishment’ and ‘depersonalisation’ respectively. Similarly, the present findings were lower than but within one standard deviation of the normative mean values reported by Maslach et al. (1996) of 21.0 (10.8) for ‘emotional exhaustion’, 34.6 (5.9) for ‘personal accomplishment’, and 8.7 (7.1) for ‘depersonalisation.’

Maslach et al., (1996) provided scoring criteria for each of the three dimensions to signify ‘high,’ ‘moderate’ and ‘low’ levels of burnout. Using these criteria, 27.8% of the sample in the present study reported high levels of burnout on ‘emotional exhaustion’, 2.1% high levels of burnout on ‘depersonalisation’, and 25.5% high levels of burnout on ‘personal accomplishment.’ The majority of participants in this study were categorised as having low levels of burnout on ‘emotional exhaustion’ (59.6%) and low levels of burnout on ‘depersonalisation’ (85.1%), with 42.6% experiencing low levels of burnout on ‘personal accomplishment’.

3.3.4. Outcomes. With regard to the PANAS, the mean positive affect scale score was 34.98 ($SD = 7.62$) and the mean negative affect scale score was 16.74 ($SD = 6.00$). These are broadly similar to the normative data reported by Watson et al. (1988) for feelings over the past two weeks: 32.0 ($SD = 7.0$) and 19.5 ($SD = 7.0$) for the respective scales. Watson et al.’s (1988) normative data was from a sample of psychology undergraduates, though Thomas and Rose (2010) reported similar mean scores for their sample of intellectual disability staff with mean ‘positive affect’ 35.42 ($SD = 35.42$) and mean ‘negative affect’ 16.36 ($SD = 6.70$). The negative affect scale violated the assumptions of normality therefore the median was 16 (interquartile range = 8). Both scales were found to have good internal reliability in this study with Cronbach’s alpha values of .86 for ‘positive affect’ and .78 for ‘negative affect’.

3.4. Research Hypotheses

The study hypotheses were explored using Mann-Whitney U tests, Pearson and Spearman correlations. For the correlation statistics bias corrected and accelerated bootstrap 95% confidence intervals are reported in square brackets. Boxplots and scatterplots were developed for the analysis of the main variables and can be found in Appendix H.

Hypothesis 1: Severity of intellectual disability is associated with emotional exhaustion. Participants who supported adults with severe-profound intellectual disabilities ($Mdn = 11.0$) had significantly higher levels of emotional exhaustion than participants who supported adults with mild-moderate intellectual disabilities ($Mdn = 25.0$), $U = 382.5$, $z = 2.42$, $p = .015$, $r = .35$.

Hypothesis 2: Number of challenging behaviours are associated with emotional exhaustion. Participants who experienced one or more behaviours as challenging ($Mdn = 28.0$) had significantly higher levels of emotional exhaustion than participants who did not experience behaviours as challenging ($Mdn = 13.0$), $U = 150.50$, $z = -2.192$, $p = .028$, $r = -.32$.

Hypothesis 3: Organisational demands are associated with emotional exhaustion. Organisational demands were significantly related to emotional exhaustion $r_s(47) = .690$ BCa CI [.502, .818], $p < .001$ (2-tailed). Higher levels of organisational demands were associated with higher levels of burnout with a large positive correlation.

Hypothesis 4: Practical coping is associated with personal accomplishment. No association was found between practical coping and personal accomplishment SWC-R $r(47) = .021$, BCa CI [-.276, .303], $p = .889$ (2-tailed).

Hypothesis 5: Wishful thinking is associated with emotional exhaustion. Wishful thinking was significantly related to emotional exhaustion $r_s(47) = .677$ BCa CI [.426, .831],

$p < .001$ (2-tailed). The more frequently participants used wishful thinking coping strategies the higher the level of burnout, with a large correlation.

Hypothesis 6: Organisational support is associated with emotional exhaustion.

Organisational support was significantly related to emotional exhaustion $r_s(47) = -.505$ BCa CI $[-.723, -.210]$, $p < .001$ (2-tailed). Lower levels of organisational support were associated with higher levels of burnout, with a large correlation.

Hypothesis 7: Social support is associated with personal accomplishment. Number of social supports was significantly related to personal accomplishment $r(47) = .335$ BCa CI $[.065, .556]$, $p = .021$ (2-tailed). A medium correlation was found, the higher the levels of social support participants had the higher job satisfaction.

Hypothesis 8: Personal accomplishment is associated with positive affect. Personal accomplishment was significantly related to positive affect $r(47) = .628$ BCa CI $[.401, .780]$, $p < .001$ (2-tailed). A large correlation was found, the higher a participant's level of job satisfaction the higher their positive affect.

Hypothesis 9: Emotional exhaustion is associated with negative affect. Emotional exhaustion was significantly associated with negative affect $r_s(47) = .648$ BCa CI $[.433, .806]$, $p < .001$ (2-tailed). A large positive correlation was found, the higher the level of participant burnout the higher their negative affect.

3.5. Adjusted p -values for Multiple Tests

During the analysis nine statistical inferences were made, with multiple simultaneous comparisons increasing the likelihood of incorrectly rejecting the null hypothesis. Adjusting the p -value compensates for the number of tests conducted. The adjusted p -value for a particular hypothesis within a collection of hypotheses is the smallest overall significance level at which the particular hypothesis would be rejected (Wright, 1992). During a priori calculations of sample size Bonferroni's correction was used. The p -value can be adjusted

post-hoc using Holm’s procedure (Holm, 1979) or the Benjamini-Hochberg false discovery rate (Benjamini & Hochberg, 1995) which modify the Bonferroni procedure to increase power. Holm’s procedure is less conservative than Bonferroni’s, similar in its sequential rejection of p -values, but maintaining the experimentwise error rate at α (Wright, 1992). The false discovery rate (FDR) is a post hoc maximising procedure that controls for the experimentwise error rate by advancing Bonferonni-type procedures with the potential to gain power (Benjamini & Hochberg, 1995).

Table 3.2.

Holm’s adjusted p -value for multiple tests.

| i | H_n | p_i | p_{Holm} | Null Hypothesis (H_0) | Significance |
|-----|-------|-------|------------|---------------------------|-----------------|
| 1 | H_3 | .001 | .0056 | Rejected | Significant |
| 2 | H_5 | .001 | .0056 | Rejected | Significant |
| 3 | H_6 | .001 | .0056 | Rejected | Significant |
| 4 | H_8 | .001 | .0056 | Rejected | Significant |
| 5 | H_9 | .001 | .0056 | Rejected | Significant |
| 6 | H_1 | .015 | .013 | | Not significant |
| 7 | H_7 | .021 | .017 | | Not significant |
| 8 | H_2 | .028 | .025 | | Not significant |
| 9 | H_4 | .889 | .05 | | Not significant |

Note. H_n : Study hypothesis number; p_i : Unadjusted p -value; p_{Holm} : Adjusted p -value based on Holm’s procedure.

For this study the Holm’s procedure was used post hoc. A brief description of how Holm’s procedure was conducted on the p -values obtained in this study will now be given.

The p -values from the inferential statistics were listed from smallest to highest and numbered

(*i*), as shown in Table 3.2. A Holm adjusted *p*-value (p_{Holm}) was calculated by $\alpha/(n - i + 1)$. As an example for i_1 , $p_{\text{Holm}} = .05/(9 - 1 + 1)$ which equals .0056. This adjusted *p*-value was then compared with the original *p*-value to see whether $p_i \leq p_{\text{Holm}}$. If p_i was less than p_{Holm} the null hypothesis was rejected. In Holm's sequentially rejective procedure where p_i values are the same, p_{Holm} remains the same (e.g. p_1 to p_5 are all .001 therefore p_{Holm} remains .0056). Using Holm's procedure the nine inferential statistics found in this study were compared with the adjusted *p*-value and five remained significant.

3.6. Explorative Post-hoc Analysis.

To limit the number of comparisons made, there were relationships between variables in the staff well-being model of interest that were not included in hypothesis-testing. These relationships were analysed post hoc, using Bonferonni adjusted *p*-values, to explore whether they should be investigated in future research studies. The relationships were between appraisals and outcomes: personal accomplishment and negative affect; emotional exhaustion and positive affect; personal accomplishment and emotional exhaustion; and positive affect and negative affect. The four post hoc comparisons increased the total number of comparisons made to 13. Adjusted *p*-values using Bonferonni's correction meant the level of significance for these four comparisons was $\alpha = .0038$.

Spearman correlations were used and no association was found between personal accomplishment and negative feelings $r_s(47) = -.248$, BCa CI [-.511, .049], $p = .092$ (2-tailed), between emotional exhaustion and positive feelings $r_s(47) = -.282$, BCa CI [-.571, .032], $p = .055$ (2-tailed), and between positive feelings and negative feelings $r_s(47) = -.214$, BCa CI [-.489, .115], $p = .148$ (2-tailed). A significant association was found between emotional exhaustion and personal accomplishment $r_s(47) = -.479$, BCa CI [-.702, .187], $p < .001$ (2-tailed), with a moderate negative correlation.

3.7. Results Summary

Analysis of the collected data found five significant relationships between main study variables: organisational demands was associated with emotional exhaustion, wishful thinking was associated with emotional exhaustion, organisational support was associated with emotional exhaustion, personal accomplishment was associated with positive affect, and emotional exhaustion was associated with negative affect. Four further relationships were explored post hoc. Inferences will now be drawn from the data and the results compared with those obtained in previous studies.

Chapter 4. Discussion

4.1. Chapter Introduction

This chapter discusses the results found in the present study for each research question and hypothesis. Strengths and weaknesses about the theoretical model, internet survey, measures, sample, and statistical analysis used in this study are identified. Both theoretical and clinical implications of the research findings are highlighted before ideas for future research are suggested. Finally, conclusions are drawn from the presented information through a summary of the study aim, research questions, and findings.

4.2. Summary of Results

The aim of the present study was to explore nine hypothesised relationships between staff well-being variables along two distinct pathways through which staff appraisals of personal accomplishment and emotional exhaustion are associated with different dimensions of well-being. As shown in Figure 4.1, five of the nine hypothesised relationships between variables were significant, with medium to large correlations. The results will be discussed as individual hypothesis tests and related to previous findings and the theoretical model.

4.3. Research Questions and Hypotheses

4.3.1. Are there associations between stressors and appraisals as conceptualised in the staff well-being model? The first three study hypotheses predicted relationships between stressors and the secondary appraisal of job burden, conceptualised as emotional exhaustion. Three stressors were predicted to have positive relationships with emotional exhaustion: intellectual disability, challenging behaviour, and organisational demands.

4.3.1.1. Hypothesis 1. Severity of intellectual disability is associated with emotional exhaustion. Participants who supported adults with severe or profound intellectual disabilities reported on average higher levels of emotional exhaustion than participants supporting adults with mild or moderate intellectual disabilities but the difference was not

significant. This differs to the finding of Gray-Stanley and Muramatsu (2011) who used a study specific 7-item Likert scale to measure ‘client disability,’ incorporating levels of client functioning, mobility and intellectual abilities. In the present study participants were not asked about functioning and mobility, they only rated their perception of service user intellectual disability. Participants were asked to rate intellectual disability as mild, moderate, severe or profound in line with categories defined in ICD-10 (World Health Organisation, 2010). These categories were then grouped into two for the purpose of analysis due to small numbers in the mild and profound categories.

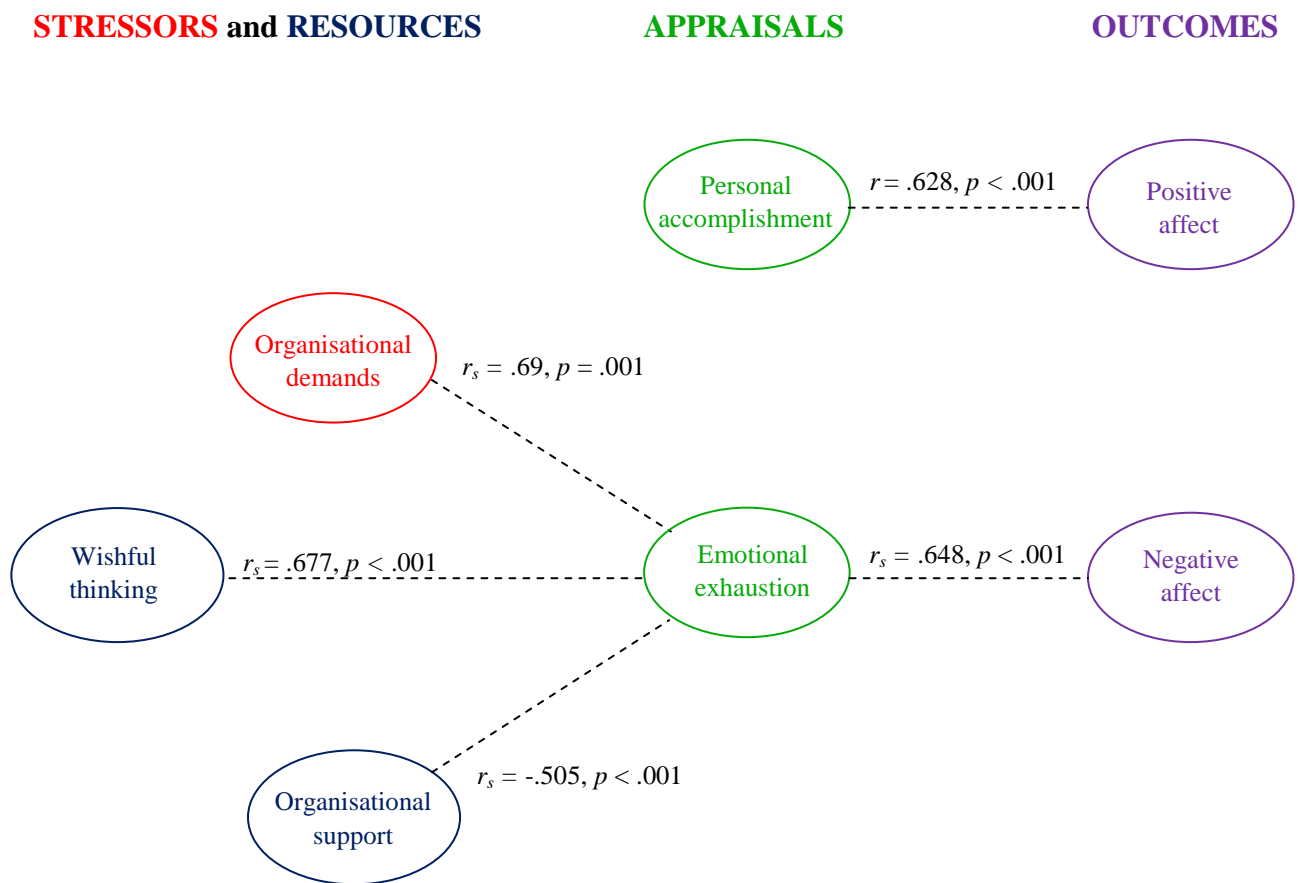


Figure 4.1. Significant relationships found. Original in colour.

It could be suggested that participant selection of the category was not correct to ICD-10 criteria, with people differing in their view of what categorises mild compared with moderate, or severe compared to profound. Unless participants knew of exact diagnosis each

service user they supported had received, it's possible they were making a decision based on their own perception of service user's abilities and support needs.

4.3.1.2. Hypothesis 2: Number of challenging behaviours are associated with emotional exhaustion. Participants who perceived that behaviours of the adults they supported were challenging had on average higher levels of emotional exhaustion than participants who did not perceive behaviours as challenging but the difference was not significant. This finding is comparable to that of Rose and Rose (2005) who found no significant difference using a similar method of splitting participants into two groups ('very high and high' or 'low and very low') depending on their self-reports of aggressive behaviour on the Aberrant Behaviour Checklist. Mutkins et al. (2011) used a 2-item Likert scale to ask participants about frequency and type of challenging behaviour and did not find an association between this and burnout.

This finding differs to results found by other studies investigating intellectual disability staff burnout and challenging behaviours measured by the same questionnaire the Checklist of Challenging Behaviour (Mills & Rose, 2011), the Aberrant Behaviour Checklist (Chung & Harding, 2009), and a 6-item Likert scale measuring client aggression (Hensel et al., 2012). A large proportion of the sample in this study (66%) did not perceive any behaviours of service users as challenging. Choices made through the Checklist of Challenging Behaviour could have identified participant's perception of what they personally find challenging as opposed to what an independent observer might rate objectionably as challenging as defined by the Checklist's criteria. In line with Howard et al.'s (2009) suggestion that staff's perception of their ability to manage challenging behaviour mediates between the stressor and burnout, it's possible that participants were exposed to behaviours but felt they could manage them.

4.3.1.3. Hypothesis 3: Organisational demands are associated with emotional exhaustion. The number of organisational demands was significantly associated with appraisals of job burden, with higher levels of staff stressors positively predicting higher levels of emotional exhaustion. This supports the result of Devereux, Hastings, Noone, Firth et al., (2009) who found total score on the staff stressor questionnaire to positively predict emotional exhaustion. Other studies have found associations between burnout and ‘work stress’ dimensions of work conflict (Gill-Monte & Peiro, 1997; Vassos & Nankervis, 2012) work overload and low decision-making participation (Gray-Stanley & Muramatsu, 2011), low job status, bureaucracy, job control, role ambiguity, and influences over work decisions (Vassos & Nankervis, 2012).

4.3.1.4. Discussion of the first research question. In regards to the research question there was an association between the stressor of organisational demands and appraisal of emotional exhaustion. Organisational demands were found to be a stressor that put staff supporting adults with intellectual disabilities under pressure. Pressure is identified as normal and necessary to motivate people to undertake tasks and seek achievement (Grimshaw, 1999). When this pressure becomes too much, as identified in this study, it can trigger secondary appraisals. Higher levels of perceived organisational demands were associated in the present study with secondary appraisals of job burden in the form of higher levels of emotional exhaustion.

According to cognitive-behavioural theory of work stress, participants who reported higher levels of organisational demands may be perceiving demands of their job role as a threat (Lazarus & Folkman, 1984). This threat may have affected participants own evaluation of the quality of how they support adults with intellectual disabilities leading to an increase in job burden. Greater severity of client intellectual disability, and experiencing client

behaviours and interpreting them as challenging were not found to be stressors associated with secondary appraisals of job burden.

4.3.2. Are there associations between resources and appraisals as conceptualised in the staff well-being model? Four hypotheses predicted relationships between organisational and personal resources and appraisals of job satisfaction and job burden. Resources were either organisational: staff support and satisfaction, or personal: social support, wishful thinking and practical coping strategies. Social support and practical coping were predicted to relate to personal accomplishment, whilst organisational support and wishful thinking were predicted to relate to emotional exhaustion.

4.3.2.1. Hypothesis 4. Practical coping is associated with personal accomplishment.

With regard to hypothesis 4, practical coping was not associated with personal accomplishment. This result differs from the findings of Devereux, Hastings, Noone, Firth et al., (2009) who found practical coping measured using the same SWC-R scale a positive predictor of personal accomplishment. Mitchell and Hastings (2001) found ‘adaptive’ strategies, a dimension of the COPE inventory (Carver, Scheier & Weintraub, 1989) including both practical and emotion-focused coping strategies, were predictive of increased feelings of personal accomplishment. Participants in the present study did use practical coping techniques but these were unrelated to appraisal of job satisfaction. This is similar to the result of Mascha (2007) who found practical coping was unrelated to factors of job satisfaction and personal accomplishment. The sample size of the present study and the study by Mascha (2007) were both small ($N = 36$ and 47 respectively). Though both correlation coefficients reported were small (.08 and .02 respectively) meaning it is unlikely a larger sample would have increased the power of this result.

4.3.2.2. Hypothesis 5. Wishful thinking is associated with emotional exhaustion.

With regard to hypothesis 5, the more frequently participants used wishful thinking coping

strategies the higher the level of emotional exhaustion. This supports previous research by Devereux, Hastings, Noone, Firth et al., (2009) who found wishful thinking measured using the SWC-R scale a positive predictor of emotional exhaustion. The wishful thinking subscale of the SWC-R measure includes 'I wish I could change what has happened,' 'I wish I could change how I feel,' and 'I wish that the situation would go away or somehow be over with.' Wishful thinking has been identified in a range of population samples to be positively associated with an unsatisfactory outcome of stressful encounters (Folkman et al., 1986), and maladaptive outcomes such as distress, depression and anxiety (Hatton & Emerson, 1995).

4.3.2.3. Hypothesis 6. Organisational support is associated with emotional exhaustion. Participants perceiving lower levels of organisational support had significantly higher levels of emotional exhaustion. This supports the finding of Mascha (2007), Chung and Corbett (1998) and Mutkins et al., (2011). Using the same measure (3SQ) as the present study Mascha (2007) reported low satisfaction with supervision and role clarity associated with higher emotional exhaustion. Chung and Corbett (1998) also found emotional exhaustion positively correlated with staff feeling in need of support from management. Mutkins et al. (2011) found lower perceived organisational support, measured by an 8-item survey, significantly associated with higher emotional exhaustion.

4.3.2.4. Hypothesis 7. Social support is associated with personal accomplishment. With regard to hypothesis 7, social support was not associated with personal accomplishment. This result compares with the finding of Aitken and Schloss (1994) who found social support was not associated with personal accomplishment. Aitken and Schloss (1994) found social support was related to other personal resources such as recreation and self-care. The present study result differs to the finding of Mutkins et al. (2011) who used the same measures as the present study (SSQ6 and MBI-HSS) and found higher numbers of social support significantly associated with higher levels of personal accomplishment. Mutkins et al. (2011) reported a

correlation coefficient (no mention of the statistical test used) of .31 ($p < .01$, $N = 80$). The present study found a similar correlation $r(47) = .34$ but the small sample meant this effect size did not have enough power to reach statistical significance. In the present study social support was measured only by the 'number' scale of the SSQ6 as the 'satisfaction' scale data was dropped due to the data being skewed. It could be argued that participant's satisfaction with social support might have been a better measure of social support as a resource, with Mutkins et al., (2011) finding significant negative correlations between support satisfaction and measures of stress and depression.

4.3.2.5. Discussion of the second research question. Secondary appraisals of job satisfaction and job burden were hypothesised to be associated with organisational and personal resources. It appears that perception of organisational support is associated with staff evaluations of their own work and the secondary appraisals they report. According to a cognitive-behavioural model of work stress coping strategies are believed to influence how a person appraises stressful situations. With practical coping strategies associated with appraising stress as a challenge, and emotion-focused coping associated with appraisals of threat (Lazarus & Folkman, 1984). In this study staff using practical coping strategies to cope with problems in their work was not associated with secondary appraisals of job satisfaction. Using emotion-focused coping strategies of wishful thinking to cope with problems at work was associated with the secondary appraisal of job burden.

4.3.3. Are there associations between appraisals and outcome as conceptualised in the staff well-being model? Two relationships were hypothesised between secondary appraisals of job satisfaction and job burden, and outcomes of positive and negative feelings. Appraisals of personal accomplishment were predicted to relate to positive affect, and appraisals of emotional exhaustion were predicted to relate to negative affect.

4.3.3.1 Hypothesis 8. Personal accomplishment is associated with positive affect.

Personal accomplishment was associated with positive affect. Participants who reported higher levels of personal accomplishment on the MBI-HSS reported higher levels of positive affect. This supports the findings of other studies who have investigated personal accomplishment using the MBI-HSS and positive affect using the Positive Affect and Negative Affect scale (Hickey, 2014; Thomas & Rose, 2009). Similar to the results of Hastings and Horne (2004) participants were found to experience positive perceptions about their work, in this study personal accomplishment was conceptualised as the perception of gains and satisfaction with one's job. In line with Lawton et al.'s (1991) two factor model of caregiving appraisal and psychological well-being, appraisals of job satisfaction in the present study were associated with the positive dimension of well-being.

4.3.3.2. Hypothesis 9. Emotional exhaustion is associated with negative affect. With regards to hypothesis 9, emotional exhaustion was found to be associated with negative affect. Participants in this sample that reported higher levels of emotional exhaustion on the MBI-HSS also reported higher levels of negative feelings on the negative scale of the Positive Affect and Negative Affect scale. This result supports the findings of many studies investigating burnout in intellectual disability staff. Burnout in terms of higher emotional exhaustion is associated with negative emotions and symptoms of distress such as anxiety and depression (Aitken & Schloss, 1994; Hickey, 2014; Mills & Rose, 2011; Mutkins et al., 2011; Rose et al., 2004; Thomas & Rose, 2009). In line with Lawton et al.'s (1991) two factor model of caregiving appraisal and psychological well-being, appraisals of job burden in the present study were associated with the negative dimension of well-being.

4.3.3.3. Discussion of the third research question. Two parallel processes were hypothesised to occur depending on the staff member's secondary appraisal. In this study staff appraisal of personal accomplishment was associated with positive affect and staff

appraisal of emotional exhaustion was associated with negative affect. Psychological well-being has been conceptualised as two independent dimensions of positive affect and negative affect (Bradburn, 1969) and work satisfaction has also been proposed to follow a similar model with 'dissatisfiers' and 'satisfiers' (Herzberg, 1959, as cited by Bradburn, 1969). In support of these theories staff in this study who reported higher levels of personal accomplishment also reported higher levels of positive feelings. Whilst staff who reported higher levels of emotional exhaustion also reported higher levels of negative feelings.

Analyses were undertaken post hoc to explore whether these two relationships were distinct. The results of the post hoc analysis suggested that personal accomplishment was not associated with negative affect and emotional exhaustion was not associated with positive affect. In line with Lawton et al.'s (1991) two-factor model the two secondary appraisals were associated with the two different dimensions of well-being. These results show that staff experience both job appraisals and outcomes. The higher the level of secondary appraisal the higher the associated dimension of affect.

4.4. Strengths and weaknesses of the study

4.4.1. Theoretical model. A strength of the current study was that it was explicitly based on theory, using the structure of Lawton et al.'s (1991) two-factor model of caregiving appraisal and psychological well-being and the cognitive-behavioural model of work stress. Conceptualised from these two theoretical models the staff well-being model was developed for the purpose of this study to explore variables previously identified in intellectual disability staff research on stress and burnout, and hypothesised relationships between them. This is a strength and means the results could contribute to confirmatory proof of the underlying processes of both theoretical models. Structural equation modelling is a powerful statistical technique that would allow exploration of the variables to establish the goodness of

fit of the hypothesised staff well-being model. A sample of over 200 participants would be required to undertake structural equation modelling.

The staff well-being model was used for conceptual purposes, to visualise the hypothesised relationships between variables labelled ‘stressors,’ ‘resources,’ ‘appraisals’ and ‘outcome.’ The number of comparisons made between variables in the model had to be limited due to the size of the study sample, to decrease the likelihood of Type I errors. As such there were relationships of interest that were not tested, shown in Figure 4.2.

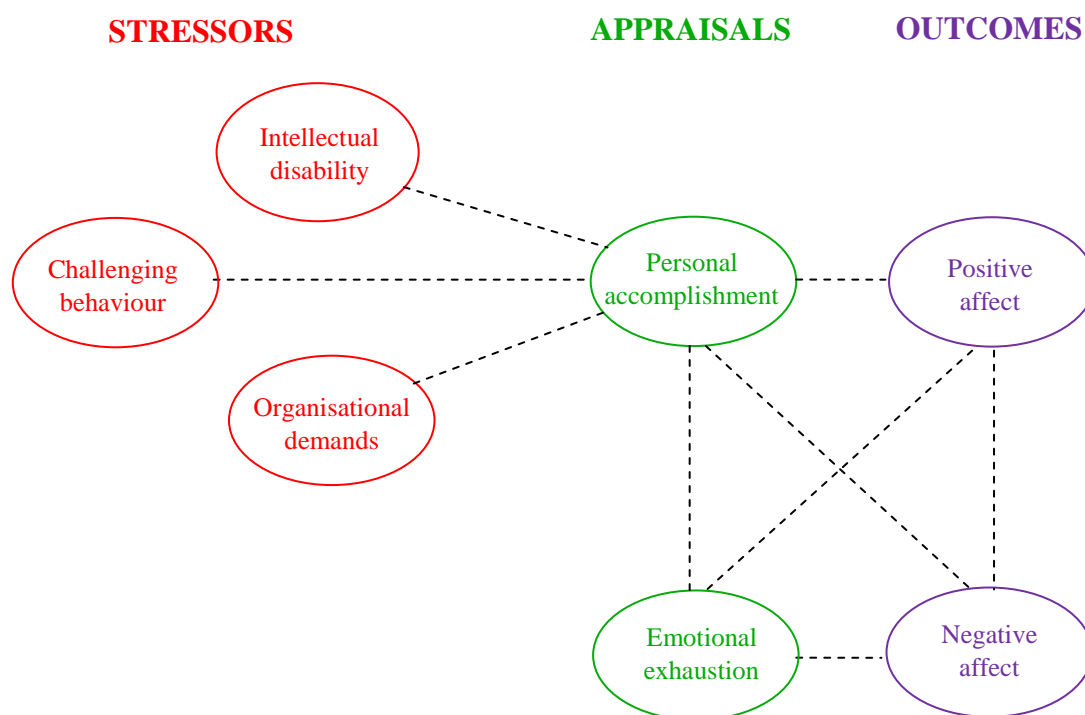


Figure 4.2. Hypothesised relationships not explored in the current study.

Exploration of four of these relationships post hoc suggested these could be investigated in future studies through a hypothesis-testing approach. In order to explore further, the two hypothesised pathways between appraisals and outcomes could be investigated to see whether they are parallel and distinct. The relationships between appraisal of job satisfaction and negative affect, and between appraisal of job burden and positive affect could be tested, as well as relationships between the two appraisals, and between the

two outcomes. Other relationships of interest would be between stressors and the appraisal of personal accomplishment, to explore which aspects of support work might contribute to perceived satisfaction with one's job. Hensel et al. (2012) found that greater levels of exposure to aggressive behaviour the higher the sense of personal accomplishment, and it would be interesting to explore whether organisational demands are associated with personal accomplishment. Also to see how resources might mediate the relationship between organisational demands and the appraisal of emotional exhaustion.

4.4.2. Use of an internet survey. Use of an internet survey was a strength and limitation of this study. An online survey meant anonymity of participation was assured which was important due to the sensitive nature of the topic. Online methods have been found to allow greater disclosure than offline methods because of perceived anonymity (Ayling & Mewse, 2009). An online survey also removed barriers between recruitment and geographical location. This meant that organisations who provided permission to take part in the study could advertise the survey in services spread across the United Kingdom. The survey was also advertised through internet forums online, a cost- and time-effective method of reaching people. Online advertising allowed an easy method of communicating with individuals who could reply directly to the post to ask questions or clarify queries about selection criteria. The cost of hosting the survey through SmartSurvey was less than printing and postage costs of a paper-based survey. The online provider reduced the time taken to score measures by assigning pre-specified values to each answer and transposing the scored values efficiently into a spreadsheet for further analysis. This reduced the likelihood of human errors caused by the manual transformation of data from paper questionnaires into a data spreadsheet and manual scoring procedures.

A limitation of using an internet survey was the increased number of barriers between an individual hearing about the study through their organisation, by seeing an advertising

poster or receiving a recruitment letter, and accessing the survey on their home computer. Barriers such as misunderstanding the purpose of the study or what participation involved, not having a computer or the internet at home to use, limited computer skills, forgetting about the study, and not wanting to do something associated with work at home or outside of working hours. These barriers might have been removed if the survey had been paper based with individuals able to read through the questionnaires and fill them in immediately if interested.

Yetter and Capaccioli (2010) found experimentally that survey delivery to education staff affected response rates with participants significantly more likely to complete paper surveys than online surveys. Though Weigold, Weigold and Russell (2010) found in a similar study with college students equivalence between paper versus internet conditions for self-report survey-based measures comparison study. These results may be population specific with college students more familiar with technology than education staff. As yet there has not been a similar comparison study of paper and internet surveys with intellectual disability staff. Research has also suggested that male study participants are more likely than females to complete web surveys (McCabe, Couper, Cranford, & Boyd, 2006) and web-based approaches may be less appropriate with older populations (Klovning, Sandvik, & Hunskaar, 2009). Intellectual disability services are known to be composed of greater numbers of female workers, with a variety of ages including older populations.

Barriers could have been removed through face to face contact with potential participants with specific instructions given about the purpose of the study and availability to answer any questions immediately. Meetings the researcher attended with groups of staff during their working hours were perceived to go successfully with people asking questions and showing interest. It is impossible to know whether this translated into people then accessing the survey due to the anonymity of participants. Participants in an online study are

more likely than those offline to become disengaged and drop out (Tates et al., 2009). It has also been recognised by Frisoli (2010) that participants of an online study might become distracted and engage in other activities whilst taking part in the study.

Muñoz-Leiva, Sánchez-Fernández, Montoro-Ríos, and Ibáñez-Zapata (2009) investigated how personalised invitations to take part in a study and the frequency of reminders about the study affected participation. Both of these methods significantly increased response rates and this reported to be in line with the theory of social exchange. This option could have been explored in this study when meeting with staff teams, giving them the option to provide an email address of choice and provide consent to be contacted by this method with information about the study. This could have been considered further during the planning stage of this study. Considering whether intellectual disability staff would be an appropriate population to survey online and whether they have access to work email accounts. Making use of internal email networks could have distributed information about the survey to higher numbers of perspective participants and removed some of the barriers mentioned above.

Another limitation of the online study was an increased likelihood of people outside of the sampling criteria completing the survey and biasing the results. Wilkerson, Iantaffi, Grey, Bockting, and Rosser. (2014) provide a detailed report into the considerations researchers should make when developing online data collection methods. The report focusses on qualitative data collection though there are many parallels amongst their recommendations for quantitative methods. Wilkerson et al. (2014) provide two decision-making checklists appended to their article that would have been useful to read before undertaking this internet-based study. The checklists would be a useful tool for any researcher to look at before proposing online data collection methods.

4.4.3. Measures. A strength of the measures used in this study was the fact that they had all been used in previous research investigating burnout with intellectual disability staff. Using structured questionnaires instead of study-specific Likert scales increased the reliability and validity of study data, and meant direct comparisons could be made with previous study findings and normative data. Internal consistency through Cronbach alpha, and face, content, construct and factorial validity data of each measure could be considered and presented to show it's suitability for use in this study to test the variable under investigation (Meltzoff, 1998). Tests of internal consistency were undertaken for each subscale used in the present study with excellent or acceptable levels found.

A limitation of using self-report measures is the potential source of self-serving bias with participant distortions of self-perception (Meltzoff, 2008). The present study was interested in exploring participant perceptions of working with adults with intellectual disabilities, with all the study variables open to distortions of self-perception and self-serving bias. The majority of measures involved making judgements and evaluations on Likert scales. In this study participants might have wanted to appear competent in their job and loyal to their organisation, leading to greater agreement with statements about organisational support and disagreement with organisational demands. It was assumed that completion of an online survey and therefore assurance of participant anonymity would reduce this bias. Each individual measure will now be discussed in terms of limitations.

Intellectual disability. Participants were asked to rate intellectual disability as mild, moderate, severe or profound in line with categories defined in ICD-10 (World Health Organisation, 2010). It's likely that participant perception of the intellectual disability each category defined differed from the actual criteria specified in ICD-10, and it's possible that participants made their choice based on their own perception of service users strengths and needs. It could be suggested that people working in the field of intellectual disability would

be able to make accurate distinctions between categories of mild and categories of severe or profound disabilities. However it might be more difficult to distinguish between mild and moderate, between moderate and severe, and between severe and profound intellectual disabilities. Due to small numbers of participants in each category, two groups of mild-moderate and severe-profound were created for further analysis. It's possible that had participants been given these two categories initially their selection might have been different.

Checklist of challenging behaviour (Harris et al., 1994). A large number of participants (66%) experienced behaviours on the Checklist of Challenging Behaviour but did not rate their frequency or management difficulty high enough to label the behaviour as 'challenging'. The remaining participants experienced between one and fifteen behaviours frequently enough and found them more difficult to manage, thus perceiving them as 'challenging'. The checklist itself could have been completed incorrectly, with participants required to make two selections for each behaviour, for a total of 33 behaviours. The length of the questionnaire might have put people off considering each behaviour individually. This questionnaire might not have measured what it intended to i.e. number of challenging behaviours participants were exposed to. Instead it could have measured self-efficacy as discussed in section 4.3.1.2. The number of challenging behaviours was categorised into 'yes' and 'no' groups and had participants been given this explicit choice in the survey, as some studies have through individual Likert scales, it's possible participants might have answered differently.

Staff stressor questionnaire (Hatton et al., 1998). The staff stressor questionnaire had 9-items relating to client challenging behaviour and its effect on services and staff, and poor client skill, similar to the variables of challenging behaviour and intellectual disability measured separately. It's possible that this one measure could have incorporated all three

stressors investigated in this study, with their combined effect found to be associated with appraisals of emotional exhaustion.

Staff support and satisfaction questionnaire (Harris & Rose, 2002). In the present study this questionnaire was used to measure organisational support, with lower levels of support associated with higher levels of emotional exhaustion. The 5-item subscale of 'job satisfaction' on this questionnaire might have crossed over with the separate study variable of personal accomplishment. Though the relationship between personal accomplishment and organisational support was not explored in this study, post hoc analysis did show that personal accomplishment and emotional exhaustion were associated.

The social support questionnaire shortened version (Sarason et al., 1987). The use of this questionnaire was limited in this study by the number of comparisons made. It was decided that the social support number scale would be used alone as a measure of social support, instead of using both 'number' and 'satisfaction' scales as the Shortened social support questionnaire was intended. Due to the data collected on 'satisfaction' being skewed it was decided that 'number' data would be used, with parametric tests identified as more robust statistics (Field, 2013). This could have biased the criterion-related validity and whether the questionnaire was measuring what it was intending to. For example participants with low numbers of social support might have been very satisfied and conversely participants with higher numbers of social support might have been very dissatisfied.

Shortened ways of coping revised (Hatton & Emerson, 1995). There did not appear to be any limitations of using the shortened ways of coping revised scale in the present study.

Maslach Burnout Inventory-Human Services Survey (Maslach et al., 1996). Participants were asked to complete the whole questionnaire but only the dimensions of emotional exhaustion and personal accomplishment were used for data analysis. The depersonalisation items could have been removed to decrease survey completion time but it

was helpful to include the scale in order to compare the data in the present study with normative data on staff burnout. The data collected from the depersonalisation scale was positively skewed, therefore the mean was not an accurate portrayal of the spread of participant scores. Using the dimensions of emotional exhaustion and personal accomplishment as measures of secondary appraisals of job burden and job satisfaction respectively was based on work stress and burnout theory and previous study findings (Cordes & Dougherty, 1993; Maslach, 1982; Rose & Rose, 2005). It's possible there are other staff specific measures of job satisfaction that might have been considered, such as the 'job satisfaction' subscale of the 3SQ though this is only 5-items in length.

Positive affect and negative affect scale (Watson et al., 1988). A particular strength of using this measure was that it included both positive and negative affect within one measure. Other studies have used specific measures of negative emotions and distress such as anxiety and depression (Chung & Harding, 2009; Mitchell & Hastings, 2001; Mutkins et al., 2007) with Hastings and Horne (2004) developing a measure of positive perception to support work but not explicitly testing positive feelings. It has been suggested that emotional exhaustion measures the same construct as negative feelings (Rose & Rose, 2005) and it's possible that the PANAS was not measuring what it was intended to. Participants were asked to rate their feelings over the last week. As psychological well-being is recognised as a dynamic process that changes as personal and situational experiences change (Bradburn, 1969) it is not suggested that participants well-being is only associated with appraisals of their job. Personality factors (Chung & Harding, 2009), physical health (Lawton et al., 1991) and work, personal and family demands (Hatton et al., 1995) have all been identified to influence well-being.

4.4.4. Sample. The study sample of 47 participants was less than planned and small in comparison to previous research in this area. A priori calculations of sample size were

undertake for seven comparisons using the Bonferonni approach and found that 77 participants were needed to achieve power of 80% for an effect size of .36. This number was not reached however adjusted *p*-values for nine comparisons were calculated post hoc using the Holm method to control for the experimentwise error rate and reduce the likelihood of making a Type I error. Using this procedure five significant correlations were found in this study with large effect sizes of between .50 and .69, significance to the level of $p < .001$, and between 67% to 99% power. In this study four associations were not significant, with three associations found to have effect sizes of .32 to .35 which might have been significant in a larger sample. The small sample in this study increased the likelihood of accepting the null hypothesis when it was false.

The use of voluntary survey methods may have biased the study sample, leading to self-selected participants being unrepresentative of the population under investigation. There may have been differences between people who chose to volunteer and participate and those who did not. Rosenthal and Rosnow (2008) identified volunteers as being better educated, higher in social class, more intelligent, more approval motivated and more sociable than non-volunteers. It could be suggested that participants in this study showed greater motivation around the work that they do through their act of participating. It is possible that people with higher perceptions of organisational demands and higher appraisals of emotional exhaustion would not want to undertake a job related research study in their spare time. This would affect how the results of the present study can be generalised to the population of staff who work with adults with intellectual disabilities.

In terms of sample demographics, the average participant was female (70%), employed fulltime (66%) as a support worker or senior support worker (74%) in a residential or supported living service (72%), educated to a level of NVQ3 or NVQ4 (73%) with an average age of 39 years and average employment of 10 years in the intellectual disability

field. This average participant is comparable with previous studies, specifically those with much larger samples (Hensel et al., 2012; Hickey, 2014) suggesting that these results can be generalised to the population of intellectual disability support workers with consideration of sampling biases mentioned above. Further analysis of demographic variables with the main study variables was not undertaken in this study to limit the number of comparisons made.

A detailed timeline of recruitment is provided in Appendix I. It is unknown how organisations who agreed to participate may have advertised the study through their services. Conversations between the researcher and organisations, resulted in participant recruitment letters and advertising posters being handed over for distribution. Conversations over the telephone and through email led to recruitment letters and advertising posters being post or emailed to services. It is unknown whether all of the 459 recruitment letters sent out reached staff or whether emails filtered through to support staff or attached letters were printed off and handed to staff.

The length of the survey and time taken to complete it might have put people off from participating in this study. The survey was initially advertised as taking between 45 and 60 minutes to complete. A read through and simulation of completing the online survey by three people took on average 30 minutes. This time was then increased to incorporate slower reading speeds and limited computer skills in order to gauge the maximum time it might take someone to complete the survey. A more comprehensive pilot study could have been conducted, asking people who met the sample criteria to complete the online survey, to provide a more accurate completion time. After 15 people had completed the survey the approximate time for completion was calculated as 25 minutes with the majority of people taking between 20 and 40 minutes (some people clocked hours and days due to the fact the survey could be saved and returned to). The advertising poster and recruitment letter were subsequently amended to reflect the average completion time.

Initial recruitment strategies targeted organisations in order to recruit a homogenous group of participants meeting the criteria of support or senior support workers in residential or supported living services for adults with intellectual disabilities. Using a varied sample of roles was one of the criticisms of previous research found during the systematic literature review. A varied sample would impact on what conclusions could be drawn from the study as different roles could have very different job stressors. Managers have less direct contact with service users, are involved in the recruitment, rotating, supervision, and disciplining of staff, and would have pressures concerning service delivery and meeting organisational targets. Trainers deliver mandatory and person-specific teaching to the staff team as part of their role. Both of these roles could involve direct interaction with service users and on occasion one to one support. It would be expected that people employed in managerial or training positions have greater experience in intellectual disability services and greater education or training in the area than support workers. This could have led managers and trainers to develop ways of coping with job stressors in order to progress, to be more invested in their organisation and be less likely to report symptoms associated with burnout.

Due to recruitment difficulties the selection criteria for participation was widened to support staff, including managerial and training roles, working in community services, including day, activity and study. The study was subsequently advertised on the internet to recruit more participants, with the recognition that the sample may be biased due to individual perception of meeting the selection criteria. Questions about the service employed in and how the participant heard about the study were added to the survey before advertisements were placed on the internet, to act as a control method.

Using this information participants could be removed from analysis if they worked in secure/inpatient settings and if they reported a job role that obviously did not meet the criteria e.g. probation officer. Participants could also be removed if they did not undertake any direct

support tasks with adults with intellectual disabilities (scored 0 on the ‘Support given to adults with learning disabilities’ questionnaire). Only three people who participated in this study were removed due to not meeting criteria. Despite not being included in the analyses of the results these participants were still eligible to take part in the prize draw if they had signed up to this. Further checks of the data found that there were no associations between intellectual disability service employed in or method of hearing about the study and any of the main study variables.

Through a visual check of the data the internet survey appeared to have been completed appropriately by the majority of participants. There were five participants who did not complete the satisfaction of social support correctly, though completion of this questionnaire was made more difficult by the specific template provided by the internet survey provider. Through the manual search procedure there appeared to be no anomalous data provided or patterns of completion that suggested participants were not responding accurately (e.g. answering all questions with the same response).

4.4.5. Statistical analysis. The cross-sectional nature of the survey means causal mechanisms of the underlying processes of the staff well-being model could not be identified. The idea of conceptualising the staff well-being model was to test it through structural equation modelling for goodness of fit of the data; this was not possible in this study due to the number of participants required. Structural equation modelling has been used to test different models proposed in intellectual disability staff stress and burnout research (Rose & Rose, 2005) and is used to find out whether variables reliably predict other constructs with which they are theoretically linked (Judd, Jessor & Donovan, 1986). Structural equation modelling allows exploration of the variances and covariance’s of the variables in a hypothesised model to establish goodness of fit (Rose & Rose, 2005) and will estimate

relationships between variables without the biasing effects of measurement error (Judd et al., 1986).

The number of participants also limited the number of comparisons that could be made between variables in the hypothesised staff well-being model, with other interesting relationships not explored (as detailed above). Multiple staff variables have been tested in previous research through studies with larger samples (Gray-Stanley & Maramatsu, 2011; Hensel, Lunskey & Dewa, 2012; Hickey, 2014) or those that have appeared to undertake multiple comparisons with small sample sizes (Mascha, 2007).

Confounding variables of partial correlations were not explored or controlled for in this study to limit the number of comparisons made (Meltzoff, 1998). Associations between demographic variables that have been reported in previous research, between depersonalisation and marital status (Mascha, 1997), and sex (Mutkins et al., 2011), were not explored. Maslach (1981) reported overall burnout experience is similar between women and men, with women showing slightly more emotional exhaustion and men showing slightly more depersonalisation. It is possible that covariate variables could have affected the results of this study. Potential confounding variables of the study procedure and experimenter bias were minimal through the use of a structured online survey that provided information and collected data in exactly the same way for each participant.

Non-parametric statistical tests of correlation were used for variables of emotional exhaustion, wishful thinking and negative feelings due to data on these scales violating the assumption of normality. Spearman's rank correlation coefficient ranks the data to reduce the impact of outliers and skewed distributions, but in doing so is less powerful than the parametric equivalent of Pearson's product-moment correlation coefficient (Field, 2013). It is possible that using non-parametric tests reduced the power of results found in this study.

4.5. Implications of the Research Findings

4.5.1. Theoretical implications. The theoretical implications of the study findings are limited due to the aim of this study being a preliminary exploration of relationships between variables in the staff well-being model and the methodological limitations highlighted. The theoretical model was conceptualised from Lawton et al.'s (1991) two-factor model of caregiving appraisal and psychological well-being. Lawton et al.'s two-factor model was itself conceptualised from cognitive-behavioural theory and Lazarus and Folkman's (1984) transactional model of stress, appraisal, and coping, and from Bradburn's (1969) two-factor theory of happiness.

In line with cognitive-behavioural theory of work stress and Lazarus and Folkman's transactional model of stress, the stressor of organisational demands was found to be associated with the secondary appraisal of job burden. Also in support of this theory, participants who had low levels of organisational resources and participants who used greater levels of emotion-focused coping, reported greater levels of secondary appraisals of job burden. In line with Lawton et al.'s (1991) two factor model of caregiving appraisal and Bradburn's (1969) theory of independent dimensions of well-being, associations were found between appraisal of job satisfaction and positive affect, and between appraisal of job burden and negative affect. Exploratory secondary analyses suggested that these two processes may have been separate and distinct, however these were not part of the main study findings and the relationships would need to undergo further hypothesis testing. Structural equation modelling would need to be used to test whether the theoretically associated variables in the staff well-being model reliably predict one another and can further our understanding of staff stress through a cognitive-behavioural framework.

4.5.2. Clinical implications. The aim of this study was to undertake a preliminary investigation of relationships between variables in the staff well-being model and therefore

the clinical implications are limited by the design. This study found 27.8% of participants reported high levels of burnout as measured by the emotional exhaustion scale of the MBI-HSS. The average score on the emotional exhaustion scale in this study was comparable with the findings of Skirrow and Harrow (2007) and lower than the normative data for the MBI-HSS (Maslach et al., 1996). However, it is still of interest to highlight that a quarter of the sample reported symptoms associated with job burnout.

The effect of emotional exhaustion on staff interactions with service users and interrelations with the staff team was not investigated in this study. It is relevant though for clinical psychologists to find out whether support staff are experiencing symptoms of burnout in order to develop and implement interventions with them to reduce distress. As Devereux, Hastings, Noone, Firth et al., (2009) found in their longitudinal study that negative dimensions of burnout appeared to be long lasting.

The results of this preliminary study were in line with cognitive behavioural models of work stress, with organisational demands, low organisational resources and emotion-focused coping strategies associated with appraisals of job burden. The clinical implication of the findings would therefore suggest interventions based on a cognitive behavioural model aimed at reducing emotion-focused coping. Intervention studies in the research literature have identified mindfulness-based interventions based on Acceptance and Commitment Therapy to be appropriate for reducing psychological distress in intellectual disability staff. The results of these studies are mixed and limited due to small samples sizes. Intervention studies have identified that mindfulness-based workshops are helpful for participants, particularly those who report the most initial distress (Bethay et al., 2013; Ingham et al., 2013; McConachie, McKenzie, Morris, & Walley, 2014; Noone & Hastings, 2009). Other interventions have explored goal focussed stress-management interventions that explore stress models, stress management and problem solving techniques (Hodgkins et al., 2005).

4.5.3. Research implications. The aim of this research was to investigate relationships between variables associated with staff well-being. Preliminary reading identified numerous staff variables that had been investigated over the last 30 years with no consensus about a theoretical model through which to link the relationships found. Discovering the Lawton et al. (1991) study was exciting as a theoretically based model through which many variables could be tested at once, with the possibility that several relationships could be identified. Encouragement for exploring the model was increased by finding it had been tested in many different caregiving populations but not intellectual disability staff, and it had recently been suggested by leading academics in the field as a model to test.

A year into the research project and it was realised that the study would not recruit enough participants in order to undertake structural equation modelling. The design remained the same, undertaking correlational analyses of staff variables; however the initial proposal of testing a new model was gone. The number of hypothesised relationships tested were reduced and those that were undertaken had reduced power due to the sample number.

A lot has been learned about undertaking research through this study. In hindsight the enthusiasm for trying to incorporate all the variables into one model to test was greater than that allowed for a time-limited thesis research study. In particular a study making use of untested online survey methods with a potentially unmotivated population. The take home message from this experience has been to recognise the worth of a project that might not be making massive leaps forward in the research field but is theoretically justified and methodologically robust.

4.6. Future Research

Based on the findings of the present study the staff well-being model warrants further exploration. Investigating the model with a larger sample would increase the power of the

findings and would allow the predictive validity of the theoretical model to be tested through structural equation modelling.

Relationships that were hypothesised based on the theoretical predictions of Lazarus and Folkman's (1984) transactional stress model but were not significant in this study could be investigated further (e.g. practical coping and personal accomplishment). Relationships that were tentatively explored in this study through post hoc analysis between appraisals and outcomes could be investigated further to test whether there are two parallel processes between appraisals and their predicted outcome, as suggested by Bradburn (1969) and found by Lawton et al., (1991).

Relationships that were not explored in this study could be investigated based on the findings of previous studies, for example challenging behaviour and personal accomplishment (Hensel et al., 2012), organisational support and personal accomplishment (Mascha, 2007), and social support and emotional exhaustion (Aitken & Schloss, 1994). Longitudinal studies could also be undertaken to investigate causal relationships between variables in the staff well-being model.

4.7. Conclusions

In conclusion, a theoretical staff well-being model was developed and tested with support staff of adults with intellectual disabilities and challenging behaviour in community services. The model was based on the structure of Lawton et al.'s (1991) two factor model of caregiving appraisal and psychological well-being, which was conceptualised from Lazarus and Folkman's (1984) theoretical model of transactional stress and Bradburn's (1969) two-factor theory of happiness. Using the results of a systematic literature review of intellectual disability staff burnout, staff variables associated with stress, burnout and well-being were identified as stressors, resources, appraisals and outcomes.

Nine hypothesised relationships between staff variables were explored through an online survey and five significant relationships were found. In answer to the first research question an association was found between the stressor of organisational demands and the appraisal of emotional exhaustion. In relation to the second research question associations were found between the resource of organisational support and appraisal of emotional exhaustion, and between the resource of wishful thinking and the appraisal of emotional exhaustion. In terms of the third research question, there was an association between the appraisal of personal accomplishment and outcome of positive affect, and an association between the appraisal of emotional exhaustion and outcome of negative affect.

These study findings were discussed in light of methodological limitations of the small sample size, multiple comparisons and correlational design. Theoretical and clinical implications were limited due to this study undertaking a preliminary exploration of a new model. Further exploration of the staff well-being model is warranted due to its theoretical conceptualisation and investigation with a larger sample size would allow the model's predictive validity to be tested.

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Appendices

Appendix A: Systematic literature review method

Appendix B: Organisation study information including advertising poster and recruitment letter

Appendix C: Advertisement for online forums

Appendix D: Online survey including questionnaire measures

Appendix E: Permission to use Maslach Burnout Inventory

Appendix F: University of East Anglia Faculty of Medicine and Health Sciences

Ethics Committee Approval Letters

Appendix G: Box plots and histograms of the main study variables

Appendix H: Box plot, scatter graphs and SPSS output for the main results

Appendix I: Timeline of recruitment

Appendix A.

Method for conducting a systematic literature review for research into burnout and staff

Inclusion Criteria

This review specifically identified studies sampling direct care workers in community services for adults with intellectual disabilities. Studies were excluded if they sampled staff working in inpatient units, or with clients who had a specific mental health diagnosis, or with explicitly mixed client populations e.g. older adults, physically disabled, children. Studies were included if they measured burnout using the MBI-HSS (Maslach et al., 1996). Studies were included if they were from an English language journal and had been subjected to peer-review.

Search Procedure

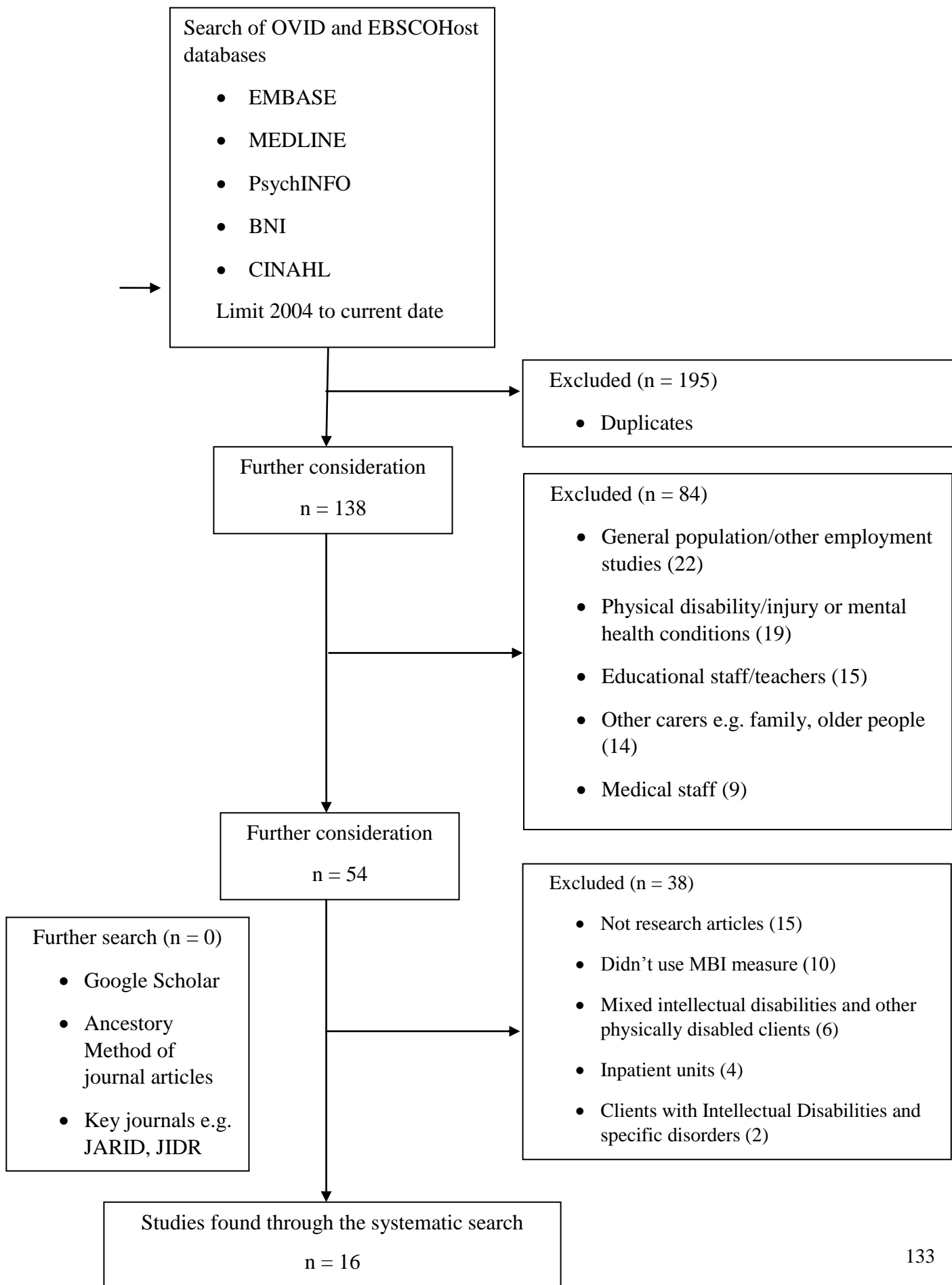
A systematic search of the EMBASE, MEDLINE, PsychINFO, BNI and CINAHL online databases was performed for dates between 2004 and the 3rd April 2014, using the following Boolean variable string: burnout AND (disab* OR retard* OR handicap*). This discovered 357 results, of which 195 were found to be duplicates. This identified 138 unique references for further consideration. From these remaining articles, 84 did not relate to carers with adults with intellectual disabilities, investigating other occupations or the general population (22), physical or mental health conditions (19), educational staff (15), family carers or carers of other populations (14), medical staff (9), students (4), and prison staff (1)

Of the remaining 54 references, 15 were excluded for not reporting direct research: four were presentations from the 2012 IASSID World Congress, six of these were narrative reviews, two were developing psychometric measures, two were conducting factor analysis of a measure, and one was a dissertation abstract. Nine studies were excluded for using other

burnout inventories or not using the standard MBI-HSS. A further 13 studies were excluded for not meeting the sample population criteria: six studies sampled a mixed population of staff with ID and other physically or mental health disabled populations, four sampled staff working in inpatient units, two sampled staff working with people with ID and other specific disorders e.g. dementia, and one sampled staff from a summer camp.

This systematic process revealed 16 studies that met the criteria of sampling staff working with adults with intellectual disabilities in community services, and measuring burnout with the MBI-HSS. Further searches using the ancestry method and the internet search engine Google Scholar revealed no other studies that met the review criteria. A flow diagram of the search procedure and table of the results of the literature search are shown below.

Flow Diagram of Search Procedure



Appendix B

Organisation study information.

Thesis Research Study for the University of East Anglia
Doctoral Course in Clinical Psychology



Nicola Brame
3rd Year Trainee Clinical Psychologist
Doctoral Programme in Clinical Psychology
Norwich Medical School
University of East Anglia
Norwich, NR4 7TJ

Telephone: 07581 065743
Email: N.Brame@uea.ac.uk

Dear Colleague,

Research investigating the wellbeing of staff working with adults with learning disabilities and challenging behaviour

My name is Nicola Brame and I am a trainee clinical psychologist studying on the Doctoral Programme in Clinical Psychology at the University of East Anglia. My thesis research study is investigating the wellbeing of staff working with adults with learning disabilities and challenging behaviour.

The study is recruiting support workers to complete an anonymous online survey in their own time and has been approved by the University of East Anglia Faculty of Medicine and Health Sciences Research Ethics Committee.

I am currently identifying suitable organisations and asking for permission to advertise the study within their community services for adults with learning disabilities through posters placed in staff areas and recruitment letters distributed to staff.

I would like to invite your organisation to take part and have provided further information about what this would involve and why this research is important on the accompanying document. I have also provided examples of what the recruitment letter and advertising poster look like.

If you would like further information or are interested in taking part please contact me at N.Brame@uea.ac.uk or telephone 07581 065743.

Thank you for your time,

Yours sincerely,

Nicola Brame
Trainee Clinical Psychologist
Research supervised by Professor David Peck

Research investigating the wellbeing of staff working with adults with learning disabilities in community services

Why is this research important?

Previous research has identified that whilst staff in intellectual disability services may not be at increased risk of burnout compared to staff in other human services, staff experiencing high levels of burnout are more likely to be absent or leave their employment. This may lead to a disruption of care to service users, financial costs to their organisations, and the loss of specific staff skills.

It is hoped that this study will lead to a better understanding of job burnout, job satisfaction and psychological wellbeing of staff in learning disability services. This can then be used to support staff and improve their ability to provide support to adults with learning disabilities.

What does the research involve?

Organisation

- The organisation will be asked to provide written confirmation stating that they are willing to advertise the study to their staff.
- The organisation will be provided with a) study recruitment letters and asked to distribute these amongst their staff and/or b) study recruitment posters and asked to place these on staff notice boards.
- The survey is anonymous and no identifying information about the organisation or service users is requested.
- All organisations that provide permission for the study to be advertised to their employees will be provided with a summary of the research findings.

Participants

- Will be requested to visit a website in their own time and complete an anonymous online survey that takes between 20 and 40 minutes to complete.
- Will be required to read through the participant information sheet and provide their informed consent to take part.
- Participants will be asked questions about the following subjects:
 1. Demographic information
 2. The challenging behaviours of service users they work with
 3. The support they give to service users
 4. Sources of work stress
 5. The way they cope with stressful work situations
 6. Work support and satisfaction
 7. The social support they get from friends and family
 8. Job burnout
 9. Their current positive and negative feelings
- All participant information provided will be stored securely and confidentially.
- As a thank you for taking part in the study participants will have the opportunity to enter a 'prize draw' to win one of two £50 Love2shop gift vouchers.
- Participants will be able to access a summary of the research findings through a webpage provided to them at the end of the survey.

Research investigating the wellbeing of staff working with adults with learning disabilities in community services

Dear Colleague,

I would like to invite you to take part in my research study. The purpose of this study is to investigate how the work that you do impacts on your personal wellbeing. To find out how satisfied you are with the work that you do, and how this might impact on how positive and negative you feel at the moment.

I'm looking to recruit 33 more people before 30th April 2014 (to reach a total of 77) and all participants can enter a prize draw to win one of two £50 Love2shop vouchers.

The study involves the completion of an online survey asking you about challenging behaviours you work with, support you give, sources of work stress, ways you cope with stressful work situations, work support and satisfaction, social support, job burnout, and current positive and negative feelings.

This study is Anonymous. You do not need to provide your name, your place of work, or any identifiable details of the people you work with.

The study is Confidential. All the information you provide will be stored confidentially and securely in accordance with data protection policies.

This study is not going to feedback your individual answers to your employers. A summary of the results will be available to all participants and all organisations who agreed for the research to be advertised within their services.

If you want to take part:

- Go to the webpage address <http://tinyurl.com/NBstaffsurvey>
- Read through the participant information sheet
- Give your consent to take part in the research study
- Give your answers to the questionnaires. You can save your answers at any point and continue at a later time. The survey will take approximately 20 to 40 minutes.
- Complete the prize draw information sheet if you want the chance to win one of two £50 Love2shop vouchers.

This study has been given ethical approval by the University of East Anglia Faculty of Medicine and Health Sciences Research Ethics Committee. If you have any questions please email me at N.Brame@uea.ac.uk or telephone 07581 065743.

Kind Regards,

Nicola Brame
Trainee Clinical Psychologist

Address: Doctoral Programme in Clinical Psychology, Norwich Medical School, University of East Anglia, Norwich, NR4 7TJ Tel: 07581 065743 Email: N.Brame@uea.ac.uk

Appendix C

Advertisement for online forums

My name is Nicola Brame and I'm conducting a thesis research study investigating the wellbeing of support staff working with adults with learning disabilities and challenging behaviours. I'm recruiting support workers from non-NHS community services (e.g. residential, supported living, day, study, and activity) to complete an anonymous and confidential online survey. The survey is asking about challenging behaviours, job demands, ways of coping, support, job satisfaction, job burnout, and wellbeing, and is taking an average of 30 minutes to complete. The study has been granted ethical approval from the University of East Anglia and all participants can enter a prize draw to win one of two £50 Love2shop vouchers. If you would like to find out more about the study please follow the link <http://tinyurl.com/NBstaffsurvey> If you decide to take part you will be asked to read through the participant information sheet and give your consent before accessing the survey. If you have any questions about this study please contact me at N.Brame@uea.ac.uk

Appendix D

Online survey including questionnaire measures

Investigating the wellbeing of staff working with adults with learning disabilities and challenging behaviour



0%

Thank you for your interest in this research study.

This psychology study is investigating how staff cope with the demands of support work, and how this impacts on their job satisfaction and wellbeing.

This study is recruiting participants meeting the following criteria:

- 1. Working with adults with learning disabilities**
- 2. Working in non-NHS community services: residential, supported living, activity, study, or day services**
- 3. Working in a support worker/direct care role or a similar position with supportive duties**

This study is Anonymous

You do not need to provide your name, your place of work, or any identifiable details of the people you work with.

This study is Confidential

All the information you provide will be stored confidentially and securely in accordance with data protection policies.

This study is not going to feedback your individual answers to your employers

A summary of the results will be available to all participants and all organisations who agreed for the research to be advertised within their services.

If you want to take part you will be asked to:

1. Read through the participant information sheet.
2. Give your consent to take part in the research study.
3. Give your answers to the questionnaires. This is taking an average of 30 minutes and you can save your answers at any point and continue at a later time.
4. Tick a box to say that you agree to submit your answers to the questionnaires.
5. Complete the prize draw information sheet if you want the chance to win one of two £50 Love2shop vouchers.

Investigating the wellbeing of staff working with adults with learning disabilities and challenging behaviour

6%

Participant Information Sheet (Feb 2014 version 1.2)

This question requires an answer.

We would like to invite you to take part in our research study.

Before you decide we would like you to understand why the research is being done and what it would involve for you.

Please read through the participant information sheet or listen to a recorded spoken version provided below. Please take your time to consider the information and whether you would like to take part in this study. Please contact the researcher Nicola Brame on 07581 065743 if you have any questions about the study.

Once you have read through or listened to the participant information sheet please select the appropriate tick box option below to show whether you would or would not like to provide consent to take part in the study:

*

- I have read or listened to the participant information sheet and would like to proceed to the Consent Form
- I do not want to take part in this research study

A word copy of the participant information sheet can be opened, read and saved by selecting this link [/ files/cabinet/34953/InformationDoc.docx](/files/cabinet/34953/InformationDoc.docx)

A recorded spoken version of the participant information sheet can be listened to by selecting this link [/ files/cabinet/34953/Information.MP3](/files/cabinet/34953/Information.MP3)

Participant Information Sheet (Feb 2014 Version 1.2)

What is the purpose of the study?

The purpose of this study is to investigate how the work that you do impacts on your personal wellbeing. To find out how satisfied you are with the work that you do, and how this impacts on how positive and negative you feel at the moment.

This study is primarily educational and is a thesis research project to fulfil the academic requirements for the University of East Anglia Doctoral Programme in Clinical Psychology.

Why have I been invited?

You have been invited to take part because you work as a support worker in a non-NHS community service for adults with learning disabilities and challenging behaviours. There will be a total of 77 participants who meet these same criteria who will take part in this study.

Do I have to take part?

To participate in this study is voluntary, and it is up to you to decide to join the study. If you read through this information sheet and agree to take part, we will ask you to complete a consent form. You are free to withdraw at any time, without giving a reason.

What will happen to me if I take part?

You will be asked to complete an online survey. You will not need to provide your name or any information that would lead to someone recognising who you are from your answers. You will not need to provide any information about where you work or the service users you work with. How long it will take to complete the online questionnaire will vary but it should take between 20 and 40 minutes.

After completing the online questionnaire you will have the opportunity to enter a 'prize draw' to win one of two Love2shop gift vouchers worth £50 each (redeemable at High Street Shops, restaurants and leisure attractions). This is to say thank you for taking part in this study. If you want to enter the prize draw you will need to provide your name and an email address in order for us to contact you if you win. If you do provide these personal details they will be stored securely and separately from your answers to the questionnaires, to make sure your answers are provided anonymously. The prize draw will be made at the end of the study, after which all the contact details of participants who enter will be destroyed.

What will I have to do?

You will need to visit a web page through a computer with internet access. You will be asked to read this information again and tick a box to say that you have. You will be asked to read a consent form and tick a box to say you have read this and you consent to take part in this research study. You will then be asked to answer questions about the following subjects:

1. Your age, gender, marital status, education, and current employment. You will be given a 'Prefer not to answer' option for these questions except you will have to provide information about your job title e.g. support worker, senior support worker, night support worker.
2. The challenging behaviours of service users you work with
3. The support you give to service users
4. Sources of work stress

5. The way you cope with stressful work situations
6. Work support and satisfaction
7. The social support you get from friends and family
8. Job burnout
9. Your current positive and negative feelings

Will my taking part in this study be kept confidential?

Once you have completed the questionnaires your answers will be stored securely and confidentially within the online survey database and then an encrypted memory device which only the researcher will be able to access through a password-protected service. After the completion of the study, your data will be stored confidentially and securely for 5 years at an archiving company used by the University of East Anglia Medical School, after which it will be destroyed.

Your employers will not know whether you are taking part in this study as your answers will be provided anonymously. There is no possible way for your answers to be fed back to your employers. A summary of the results of this study will be made available to all participants to view through a web page address provided after completing the survey. The summary of results will be posted to the organisations that have provided permission for the researcher to contact their staff. No individual participant or their answers will be identifiable within these results.

How will I be able to withdraw from the study?

If you look at the survey online and decide you do not want to complete it, you will be free to withdraw from the study by not submitting your answers to the questionnaires. However due to this study being anonymous if you complete the survey online and submit your answers it will not be possible to withdraw from the study at a later date.

Who has reviewed the study?

All research is looked at by an independent group of people, called a Research Ethics Committee, to protect your interests. This study has been reviewed and given a favourable opinion by the University of East Anglia Faculty of Medicine and Health Sciences Research Ethics Committee.

Further information and contact details

If you would like further information about this research or if you have concerns about any aspect of this study, please contact the primary researcher Nicola Brame on 07581 065743 or at the email address N.Brame@uea.ac.uk. If you have any further questions you can contact the research supervisor Prof David Peck at the email address cademu1r@btinternet.com.

Investigating the wellbeing of staff working with adults with learning disabilities and challenging behaviour

12%

Consent Form

Title of the Project: Investigating the wellbeing of staff working with adults with learning disabilities and challenging behaviour.

Name of Researcher: Nicola Brame

- I confirm that I have read and understood the information sheet dated Feb 2014 (version 1.2) for the above study. I have had the opportunity to consider the information, ask questions and have had these answered satisfactorily.
- I understand that my participation is voluntary and that I am free to withdraw from the study by not submitting my answers to the online questionnaire.
- I agree to take part in the above study.

This question requires an answer.

Please select the appropriate option: *

- I have ticked all three boxes of the Consent Form and I wish to proceed to the questionnaires
- I have not ticked all three boxes therefore I will be unable to participate in this study

Investigating the wellbeing of staff working with adults with learning disabilities and challenging behaviour

19%

Demographic Information

Please provide information about your age, gender, marital status, and education. Please select from the options the answers that most accurately describe you.

You do not need to provide this information if you don't want to. In this case leave the answer blank or select 'prefer not to answer' and move on to the next question.

1. Age

DD/MM/YYYY

Date of Birth



2. Gender

- Male
- Female
- Prefer not to answer

3. Marital Status

- Single
- Cohabiting/Married/Civil Partnership
- Separated/Divorced/Widowed
- Prefer not to answer

4. Education and Qualifications

- NVQ Level 1 or equivalent e.g. < 5 GCSE's
- NVQ Level 2 or equivalent e.g. 5 GCSE's, O-Levels
- NVQ Level 3 or equivalent e.g. A-Levels
- NVQ Level 4 or equivalent e.g. Degree, BSc, BA
- NVQ Level 5 or equivalent e.g. Higher Degree, MSc, PhD
- Prefer not to answer

Investigating the wellbeing of staff working with adults with learning disabilities and challenging behaviour

25%

Employment

Please select from the following options the answers that most accurately describe your current employment and work experience.

You are required to provide information about your current job role.

You do not need to answer the other questions if you don't want to. In this case leave the answers blank or select 'prefer not to answer' and move on to the next question.

This question requires an answer.

5. What is your current job title?

You are required to give an answer to this question.

*

- Support Worker
- Night Support Worker
- Senior Support Worker
- Other (please specify):

6. What are your current working hours?

- Full Time
- Part Time
- Bank Worker
- Prefer not to answer

7. How much experience do you have working with adults with learning disabilities?

| | Years | Months |
|---|----------------------|----------------------|
| Time spent in current job | <input type="text"/> | <input type="text"/> |
| Total time spent working with people with learning disabilities and challenging behaviour | <input type="text"/> | <input type="text"/> |

8. What training have you had on challenging behaviour?

- No formal training on challenging behaviour
- Limited training e.g. one or two courses
- Detailed training e.g. three or more courses
- Prefer not to answer

9. How would you categorise the learning disabilities of the adults you work with in your current employment?

If you work with multiple categories of learning disability please select the most severe.

- Mild
- Moderate
- Severe
- Profound

10. How would you describe the services you work in?

- Residential or supported living service
- Inpatient service
- Day or Activity service
- Other (please specify):

11. How did you find out about this research study?

- Through my work organisation e.g. recruitment letter, advertising poster, work colleague
- Through a friend or family member
- Through an advertisement on the internet

Investigating the wellbeing of staff working with adults with learning disabilities and challenging behaviour

31%

The Checklist of Challenging Behaviour (Harris, Humphreys, & Thomson, 1994)

This question requires an answer.

Has any service user you work with exhibited any of the following behaviours during the past three months?

Please think about all the adults with learning disabilities you work with and select a number between 1 - 5 from the drop down menu to reflect the frequency and management difficulty for each behaviour.

Frequency: How often has this behaviour occurred during the past three months?

- 1 = Never:** This behaviour has not occurred during the past three months
- 2 = Rarely:** Has occurred during the past 3 months but not in the past month
- 3 = Occasionally:** 1 – 4 times in past month
- 4 = Often:** More than 4 times in past month
- 5 = Very often:** Daily or more often

Management Difficulty: How difficult do you find it to manage this situation?

- 1 = No problem:** I can usually manage this situation without any difficulty at all
- 2 = Slight problem:** I can manage this situation quite easily although it does cause me some difficulty
- 3 = Moderate problem:** I find this situation quite difficult to manage, but I feel confident that I can
- 4 = Considerable problem:** I find it very difficult to manage this situation on my own
- 5 = Extreme problem:** I simply cannot manage this situation without help

Please rate the following behaviours in terms of frequency and management difficulty.
*

| | Frequency | Management Difficulty |
|---|-------------------------------|-------------------------------|
| Pinching people | <input type="text" value=""/> | <input type="text" value=""/> |
| Biting people | <input type="text" value=""/> | <input type="text" value=""/> |
| Scratching people | <input type="text" value=""/> | <input type="text" value=""/> |
| Hitting out at people (i.e. punching or slapping) | <input type="text" value=""/> | <input type="text" value=""/> |
| Grabbing, squeezing, pushing or pulling people | <input type="text" value=""/> | <input type="text" value=""/> |
| Kicking people | <input type="text" value=""/> | <input type="text" value=""/> |
| Headbutting people | <input type="text" value=""/> | <input type="text" value=""/> |

| | | |
|---|----------------------|----------------------|
| Pulling people's hair | <input type="text"/> | <input type="text"/> |
| Choking or throttling people | <input type="text"/> | <input type="text"/> |
| Using objects as weapons against people (e.g. knife or other hand held object) | <input type="text"/> | <input type="text"/> |
| Throwing things at people | <input type="text"/> | <input type="text"/> |
| Tearing other people's clothes | <input type="text"/> | <input type="text"/> |
| Making unwanted sexual contact | <input type="text"/> | <input type="text"/> |
| Injuring self (e.g. head banging, eye poking/gouging, biting or scratching self) | <input type="text"/> | <input type="text"/> |
| Damaging clothes, furniture or other objects | <input type="text"/> | <input type="text"/> |
| Smashing windows | <input type="text"/> | <input type="text"/> |
| Slamming doors | <input type="text"/> | <input type="text"/> |
| Shouting and swearing at people | <input type="text"/> | <input type="text"/> |
| Making loud noises (e.g. banging, screeching, screaming) | <input type="text"/> | <input type="text"/> |
| Threatening to hurt others (either verbally or non-verbally) | <input type="text"/> | <input type="text"/> |
| Taking food or drink from others | <input type="text"/> | <input type="text"/> |
| Eating inappropriate things (e.g. rubbish, faeces, dangerous objects) | <input type="text"/> | <input type="text"/> |
| Displaying ritualistic or repetitive behaviour (e.g. closing/opening doors, rearranging furniture, hoarding rubbish etc) | <input type="text"/> | <input type="text"/> |
| Engaging in stereotyped behaviour (e.g. bodyrocking, finger tapping, hand waving etc) | <input type="text"/> | <input type="text"/> |
| Showing withdrawn behaviour (i.e. difficult to reach or contact) | <input type="text"/> | <input type="text"/> |
| Spitting at people | <input type="text"/> | <input type="text"/> |
| Deliberately soiling, wetting or vomiting | <input type="text"/> | <input type="text"/> |
| Smearing or flicking faeces (or anal probing) | <input type="text"/> | <input type="text"/> |
| Exposing his or her body inappropriately (e.g. stripping or masturbating in public) | <input type="text"/> | <input type="text"/> |
| Refusing to do things (e.g. to eat or to move) | <input type="text"/> | <input type="text"/> |
| Absconding or trying to abscond from facility | <input type="text"/> | <input type="text"/> |

Causing night time disturbance

Harris, P., Humphreys, J., & Thomson, G. (1994). A Checklist of Challenging Behaviour: The development of a survey instrument. *Mental Handicap Research*, 7, 118-133.

Investigating the wellbeing of staff working with adults with learning disabilities and challenging behaviour

38%

Support given to adults with learning disabilities (Lawton et al., 1991)

This question requires an answer.

How frequently during your last five working days did you support a service user with the following tasks? *

| | No days | One day | Two of three days | Four or five days |
|--|-----------------------|-----------------------|-----------------------|-----------------------|
| Feeding | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Dressing | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Grooming e.g. making hair, face or skin look nice | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Toileting | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Bathing | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Giving Medicine | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Banking and financial management | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Moving from place to place, e.g. support to walk or move, using manual handling techniques | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Transportation e.g. driving a car, using public transport | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| To go into the community e.g. shops, leisure activities, college | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

Lawton, M. P., Moss, M., Kleban, M. H., Glicksman, A., & Rovine, M. (1991). A Two-Factor Model of caregiving appraisal and psychological well-being. *Journal of Gerontology: Psychological Sciences*, 46, P181-189.

Investigating the wellbeing of staff working with adults with learning disabilities and challenging behaviour

44%

Staff Stressor Questionnaire (Hatton et al., 1999)

This question requires an answer.

Please rate how stressful you find the following possible sources of stress on the five point scale from '1 = Not at all' to '5 = A great deal'.

How stressful do you find:

*

| | Not at all | Just a little | Moderate amount | Quite a lot | A great deal |
|---|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| | 1 | 2 | 3 | 4 | 5 |
| The physical work conditions | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| The work load | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Lack of sufficient staff and resources | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Low levels of user mobility | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Doing domestic tasks | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Low levels of user self-care skills | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Uncertainty about what the job involves | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Doing paperwork/administration | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Lack of/slow service user progress | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Lack of support from outside work | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| User behaviour causing injury to others | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Lack of support from management | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Low levels of user communication skills | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Physical strength of users | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| The hours of the job | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Low levels of user domestic skills | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

| | | | | | |
|---|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| Lack of job security | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| User self-injury | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Lack of procedure for effectively dealing with user challenging behaviour | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Low income | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| The organisation's rules and regulations | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| User destruction of property | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| The emotional impact of the job | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| User stereotyped behaviours | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Lack of training opportunities | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Unpredictable user challenging behaviour | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Lack of support from colleagues | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Inappropriate sexual behaviour | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Too much routine | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Lack of promotion prospects | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Personal care of service users | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Lack of support from immediate superior | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Conflicts between work and home | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

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.

Investigating the wellbeing of staff working with adults with learning disabilities and challenging behaviour

50%

The shortened ways of coping questionnaire (Hatton & Emerson, 1995)

This question requires an answer.

Please focus on how you cope with problems at work and rate each item on the scale from '1 = Not used' to '4 = Used a great deal'.

How do you cope with the following problems at work?

*

| | Not used 1 | Used Somewhat 2 | Used Quite a bit 3 | Used a Great deal 4 |
|---|-----------------------|-----------------------|-----------------------------|---------------------------|
| I daydream or imagine a better time or place than the one I am in | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| I draw on my past experiences | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| I think up a couple of different solutions to problems | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| I wish that I could change how I feel | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| I try to come out of experiences better than when I went in | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| I wish that I could change what has happened | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| I try to analyse the situation in order to understand it better | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| I usually know what has to be done, so I keep up my efforts to make things work | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| I take it out on other people | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| I avoid being with people in general | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| I have fantasies or wishes about how things might turn out | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| I stand my ground and fight for what I want | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| I wish that the situation would go away or somehow be over with | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| I make a plan of action and follow it | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

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.

Investigating the wellbeing of staff working with adults with learning disabilities and challenging behaviour

56%

The staff support and satisfaction questionnaire (Harris & Rose, 2002)

The following questions are asking about yourself and your place of work.

For each question please rate yourself on the scale from 5 to 1.

This question requires an answer.

1. *

| | Very Clear 5 | 4 | 3 | 2 | Very Unclear 1 |
|---|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| How clear are you about the main objectives you should be working towards in your job | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| How clear are you about what your direct line manager expects from you? | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| How clear are you about the limits of your responsibility in your present position? | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| How clear are you about how satisfied your direct line manager is with what you do? | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

This question requires an answer.

2a. *

| | Always 5 | 4 | 3 | 2 | Never 1 |
|---|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| Is there somebody you can talk to at work if you are experiencing difficulty in your job? | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

This question requires an answer.

2b. Considering your answer to the last question. *

| | | | | | |
|----------------------------------|-----------------------|-----------------------|-----------------------|-----------------------|------------------------|
| | Very Satisfied 5 | 4 | 3 | 2 | Very Dissatisfied 1 |
| How satisfied are you with this? | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

This question requires an answer.

3a. *

| | | | | | |
|---|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| | Always 5 | 4 | 3 | 2 | Never 1 |
| If you were unable to cope with a situation at work, is there anybody you can call on for practical help? | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

This question requires an answer.

3b. Considering your answer to the last question *

| | | | | | |
|----------------------------------|-----------------------|-----------------------|-----------------------|-----------------------|------------------------|
| | Very Satisfied 5 | 4 | 3 | 2 | Very Dissatisfied 1 |
| How satisfied are you with this? | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

This question requires an answer.

4a. *

| | | | | | |
|---|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| | Very Clear 5 | 4 | 3 | 2 | Very Unclear 1 |
| How clearly have personal risk situations been identified at your place of work? (i.e. situations that may threaten you personally) | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

This question requires an answer.

4b. Considering your answer to the last question *

| | | | | | |
|----------------------------------|-----------------------|-----------------------|-----------------------|-----------------------|------------------------|
| | Very Satisfied 5 | 4 | 3 | 2 | Very Dissatisfied 1 |
| How satisfied are you with this? | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

This question requires an answer.

5a. *

| | Very Clear 5 | 4 | 3 | 2 | Very Unclear 1 |
|--|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| How clear are the procedures about what to do if something goes wrong? | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

This question requires an answer.

5b. Considering your answer to the last question *

| | Very Satisfied 5 | 4 | 3 | 2 | Very Dissatisfied 1 |
|----------------------------------|-----------------------|-----------------------|-----------------------|-----------------------|------------------------|
| How satisfied are you with this? | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

This question requires an answer.

6a. How often do you turn to the following people for support when you are experiencing difficulty at work? *

| | Always 5 | 4 | 3 | 2 | Never 1 |
|---------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| Direct Line Manager | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Colleagues | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

This question requires an answer.

6b. In response to your answers to the last question, how satisfied are you with this? *

| | Very Satisfied 5 | 4 | 3 | 2 | Very Dissatisfied 1 |
|---------------------|-----------------------|-----------------------|-----------------------|-----------------------|------------------------|
| Direct Line Manager | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Colleagues | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

This question requires an answer.

7. Finally, please respond to the following statements: *

| Strongly Agree | Agree | Undecided | Disagree | Strongly Disagree |
|----------------|-------|-----------|----------|-------------------|
|----------------|-------|-----------|----------|-------------------|

| | | | | | |
|--|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| I am satisfied with my present situation at work | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| I feel I belong to a valued staff group | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| I am satisfied with my present level of involvement in decision making at work | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| I often think about finding another job | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Overall, I am satisfied with the degree of support I receive in my job | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

Harris, P., & Rose, J. (2002). Measuring staff support in services for people with intellectual disability: The Staff Support and Satisfaction Questionnaire, Version 2. *Journal for Intellectual Disability Research*, 46, 151 - 157.

Investigating the wellbeing of staff working with adults with learning disabilities and challenging behaviour

62%

Social support questionnaire shortened version (Sarason, Sarason, Shearin, & Pierce, 1987)

This question requires an answer.

The following questions ask about people in your environment who provide you with help or support.

Each question has two parts:

- **For the first part, select from the drop down menu the number of people you know excluding yourself, who you can count on for help or support in the manner described. Select from the range 'No One' to '9 people'.**
- **For the second part, select from the drop down menu how satisfied you are with the overall support you have. Select from the range 'Very Satisfied' to 'Very Dissatisfied'.**

If you have no support for a question, select the words 'No one,' but still rate your level of satisfaction.

Please answer all the questions as best you can.

*

| | Number of people you can count on for support (No One to 9 people) | How satisfied are you with the overall support you have? (Very Satisfied to Very Dissatisfied) |
|---|--|--|
| Who can you really count on to be dependable when you need help? | <input type="text"/> | <input type="text"/> |
| Who can you really count on to help you feel more relaxed when you are under pressure or tense? | <input type="text"/> | <input type="text"/> |
| Who accepts you totally, including your worst and your best points? | <input type="text"/> | <input type="text"/> |
| Who can you really count on to care about you, regardless of what is happening to you? | <input type="text"/> | <input type="text"/> |
| Who can you really count on to help you feel better when you are feeling generally down-in-the-dumps? | <input type="text"/> | <input type="text"/> |
| Who can you count on to console you when you are very upset? | <input type="text"/> | <input type="text"/> |

Sarason, I. G., Sarason, B. R., Shearin, E. N., & Pierce, G. R. (1987). A brief measure of social support: Practical and theoretical implications. *Journal of Social and Personal Relationships*, 4, 497-510.

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Investigating the wellbeing of staff working with adults with learning disabilities and challenging behaviour

69%

Maslach Burnout Inventory - Human Services Survey (Christina Maslach & Susan E. Jackson)

The purpose of this survey is to discover how various persons in the human services, or helping professionals view their job and the people with whom they work closely. Because persons in a wide variety of occupations will answer this survey, it uses the term recipients to refer to the people for whom you provide

your service, care, treatment, or instruction. When answering this survey please think of the adults with learning disabilities and challenging behaviour that you support as recipients of the service you provide.

This question requires an answer.

Here are 22 statements of job-related feelings. Please read each statement carefully and decide if you ever feel this way about *your* job. If you have *never* had this feeling, tick the box for number '0' (zero). If you have had this feeling indicate *how often* you feel it by ticking the box associated with the number (from 1 to 6) and statement that best describes how frequently you feel that way. *

| | Never | A few times a year or less | Once a month or less | A few times a month | Once a week | A few times a week | Every day |
|--|-----------------------|----------------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| I feel emotionally drained from my work | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| I feel used up at the end of the workday | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| I feel fatigued when I get up in the morning and have to face another day on the job | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

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Investigating the wellbeing of staff working with adults with learning disabilities and challenging behaviour

75%

The Positive Affect and Negative Affect Scale (Watson, Clark, & Tellegen, 1988)

This question requires an answer.

This scale consists of a number of words that describe different feelings and emotions.

Read each item and then tick the appropriate answer. Indicate to what extent you have felt this during the past week from '1 = Very slightly or not at all' to '5 = Extremely' by ticking one of the boxes.

*

Very slightly or A Little Moderately Quite a Bit Extremely

| | not at all 1 | 2 | 3 | 4 | 5 |
|--------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| Interested | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Distressed | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Excited | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Upset | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Strong | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Guilty | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Scared | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Hostile | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Enthusiastic | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Proud | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Irritable | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Alert | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Ashamed | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Inspired | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Nervous | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Determined | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Attentive | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Jittery | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Active | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Afraid | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

Watson, D., Clark, L. A., & Tellegen, A. (1988). Development and validation of brief measures of positive and negative affect: The PANAS Scales. *Journal of Personality and Social Psychology*, 54, 1063-1070.

Investigating the wellbeing of staff working with adults with learning disabilities and challenging behaviour

81%

Confirmation that you wish your answers to the questionnaires to be submitted

This question requires an answer.

You have now completed all the questionnaires.

Please select the appropriate response from the two options below:

*

- I am happy to submit my answers to the questionnaires and participate in this research study
- I do not wish to submit my answers to the questionnaires and wish to withdraw from this research study

Investigating the wellbeing of staff working with adults with learning disabilities and challenging behaviour

88%

Thank you for completing this survey.

If you have any questions about the survey you have just completed or the research study please contact the primary researcher Nicola Brame at the email address N.Brame@uea.ac.uk or telephone 07581 065743. If you have any further questions you can contact the research supervisor Prof David Peck at the email address cademu1r@btinternet.com

A summary of the results of this survey will be available to view at the webpage address <http://tinyurl.com/NBresults> when this study is completed in June 2014. Please make a record of this webpage address and access it after June 2014 if you would like to read the results of this research study.

If you have found completing this survey distressing please contact the researcher Nicola Brame on 07581 065743 or N.Brame@uea.ac.uk

If you are feeling stressed, anxious, depressed, overwhelmed or finding it difficult to cope please contact your GP or NHS Direct on the telephone numbers 111 or 0845 4647, or visit <http://www.nhsdirect.nhs.uk>

For immediate and confidential emotional support contact the Samaritans on 08457 90

90 90 or <http://www.samaritans.org/>

Your local Wellbeing or Improving Access to Psychological Therapies (IAPT) service can offer support to make changes in your life to manage levels of stress as well as symptoms of anxiety and depression. To find your local service and information about managing stress or making a self-referral visit the website <http://www.iapt.nhs.uk/services/> or if you live within Norfolk and Suffolk go to <https://www.readytochange.org.uk/Pages/Home.aspx>

For information about common mental health problems the service MIND can be contacted on 0300 123 3393 or <http://www.mind.org.uk>

Investigating the wellbeing of staff working with adults with learning disabilities and challenging behaviour

94%

Prize Draw

Please complete these details ONLY if you would like to enter into the prize draw for the chance to win one of two Love2shop gift vouchers worth £50 each and redeemable at High Street shops Argos, Debenhams, Wilkinsons, Boots, Toys R Us, New Look, River Island, Show Zone, HMV, H.Samuel, Homebase, and Mothercare, as well as restaurants and leisure attractions.

All information provided here will be kept confidential and will be destroyed once the survey closes and two winners have been selected in the prize draw and received their vouchers. The survey will close when 77 participants have been recruited.

If you are selected as a winner you will be emailed shortly after the survey has closed and asked to provide an address to post the voucher to. You will be posted the voucher and asked to sign a receipt to state that you have received the voucher. You will be asked to return this receipt to the researcher in the stamped addressed envelope provided. The two receipts will be used as evidence that the prize draw took place and that two winners received their vouchers.

Please make sure the email address you provide is correct and that you check your account regularly. If you are emailed to say you have won and we do not receive a response within three weeks another winner will be chosen at random.

Name

Email Address

This question requires an answer.

You do not have to participate in the prize draw if you do not want to provide your personal details.

Please select the appropriate option:

*

- I do not wish to participate in the prize draw and would like to exit the survey.
- I have entered my personal details and would now like to exit the survey.

Thank you for your interest in this research study.

If you have found completing this survey distressing please contact the researcher Nicola Brame on 07581 065743 or N.Brame@uea.ac.uk

If you are feeling stressed, anxious, depressed, overwhelmed or finding it difficult to cope please contact your GP or NHS Direct on the telephone numbers 111 or 0845 4647, or visit <http://www.nhsdirect.nhs.uk>

For immediate and confidential emotional support contact the Samaritans on 08457 90 90 90 or <http://www.samaritans.org/>

Your local Wellbeing or Improving Access to Psychological Therapies (IAPT) service can offer support to make changes in your life to manage levels of stress as well as symptoms of anxiety and depression. To find your local service and information about managing stress or making a self-referral visit the website <http://www.iapt.nhs.uk/services/> or if you live within Norfolk and Suffolk go to <https://www.readytochange.org.uk/Pages/Home.aspx>

For information about common mental health problems the service MIND can be contacted on 0300 123 3393 or <http://www.mind.org.uk>

Appendix E

Permission from Mind Garden to use the Maslach Burnout Inventory in the online study.

For use by Nicola Brame only. Received from Mind Garden, Inc. on June 3, 2013



www.mindgarden.com

To whom it may concern,

This letter is to grant permission for the above named person to use the following copyright material for his/her thesis or dissertation research:

Instrument: ***Maslach Burnout Inventory, Forms: General Survey, Human Services Survey & Educators Survey***

Copyrights:

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MBI-Human Services Survey (MBI-HSS): Copyright ©1981 Christina Maslach & Susan E. Jackson. All rights reserved in all media. Published by Mind Garden, Inc., www.mindgarden.com

MBI-Educators Survey (MBI-ES): Copyright ©1986 Christina Maslach, Susan E. Jackson & Richard L. Schwab. All rights reserved in all media. Published by Mind Garden, Inc., www.mindgarden.com

Three sample items from a single form of this instrument may be reproduced for inclusion in a proposal, thesis, or dissertation.

The entire instrument may not be included or reproduced at any time in any published material.

Sincerely,

Robert Most
Mind Garden, Inc.
www.mindgarden.com

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Appendix F

**University of East Anglia Faculty of Medicine and Health Sciences Ethics Committee
Approval Letters**

Faculty of Medicine and Health Sciences Research Ethics Committee



Nicola Brame
Norwich Medical School
University of East Anglia
Norwich
NR4 7TJ

Research & Enterprise Services
West Office (Science Building)
University of East Anglia
Norwich Research Park
Norwich, NR4 7TJ

Telephone: +44 (0) 1603 591720
Email: fmh.ethics@uea.ac.uk

Web: www.uea.ac.uk/researchandenterprise

21st August 2013

Dear Nicola,

Project title: Investigating a Two-Factor Model of Caregiving Appraisal and Psychological Wellbeing with Support Staff Working with Adults with Intellectual Disabilities and Challenging Behaviour.
Reference: 2012/2013-58

The amendments to your above proposal have been considered by the Chair of the Faculty Research Ethics Committee and we can confirm that your proposal has been approved.

Please could you ensure that any further amendments to either the protocol or documents submitted are notified to us in advance and also that any adverse events which occur during your project are reported to the Committee. Please could you also arrange to send us a report once your project is completed.

The Committee would like to wish you good luck with your project.

Yours sincerely,

A handwritten signature in blue ink, appearing to read 'Yvonne Kirkham'.

Yvonne Kirkham
Project Officer

17

Nicola Brame
Norwich Medical School
University of East Anglia
Norwich
NR4 7TJ

Research & Enterprise Services
West Office (Science Building)
University of East Anglia
Norwich Research Park
Norwich, NR4 7TJ

Telephone: +44 (0) 1603 591720

Email: fmh.ethics@uea.ac.uk

Web: www.uea.ac.uk/researchandenterprise

6th March 2014

Dear Nicola,


Project title: Investigating a Two-Factor Model of Caregiving Appraisal and Psychological Wellbeing with Support Staff Working with Adults with Intellectual Disabilities and Challenging Behaviour.
Reference: 2012/2013-58

Thank you for your e-mail dated 26/02/14 notifying us of the amendments you would like to make to your above proposal. These have been considered by the Chair of the Faculty Research Ethics Committee and we can now confirm that your amendments have been approved.

Please can you ensure that any further amendments to either the protocol or documents submitted are notified to us in advance, and also that any adverse events which occur during your project are reported to the Committee.

Please can you also arrange to send us a report once your project is completed.

Yours sincerely,



Yvonne Kirkham
Project Officer

cc D. PECK

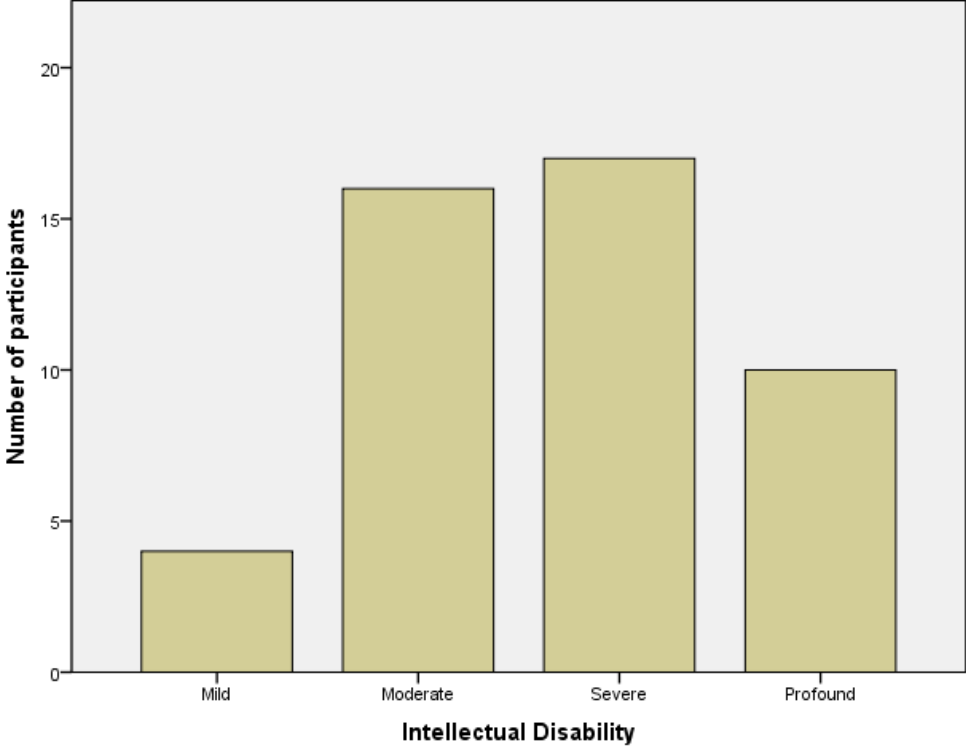
Appendix G

Box plots and histograms of the main study variables

1. Stressors

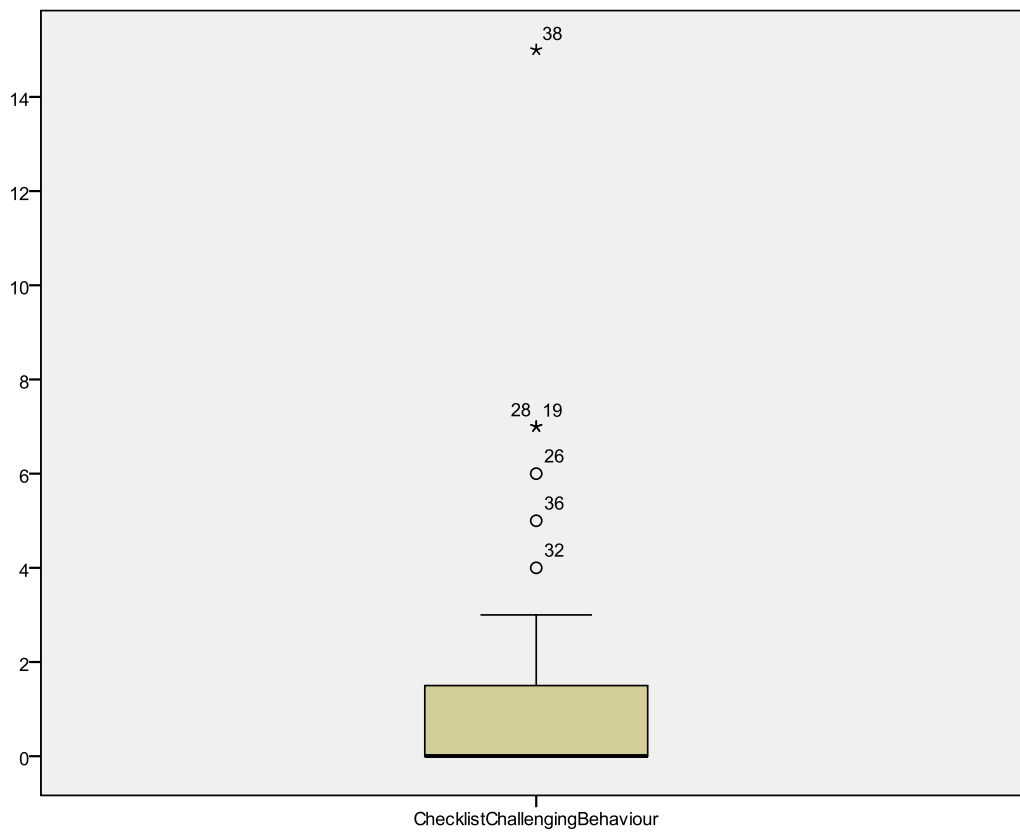
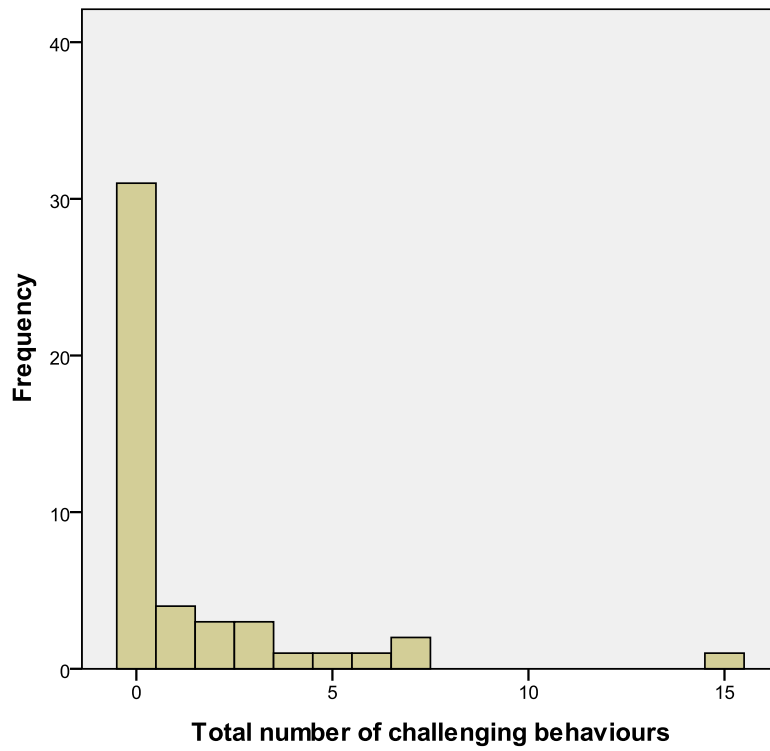
1.1. Intellectual Disability

Histogram showing the number of participants supporting each category of intellectual disability.



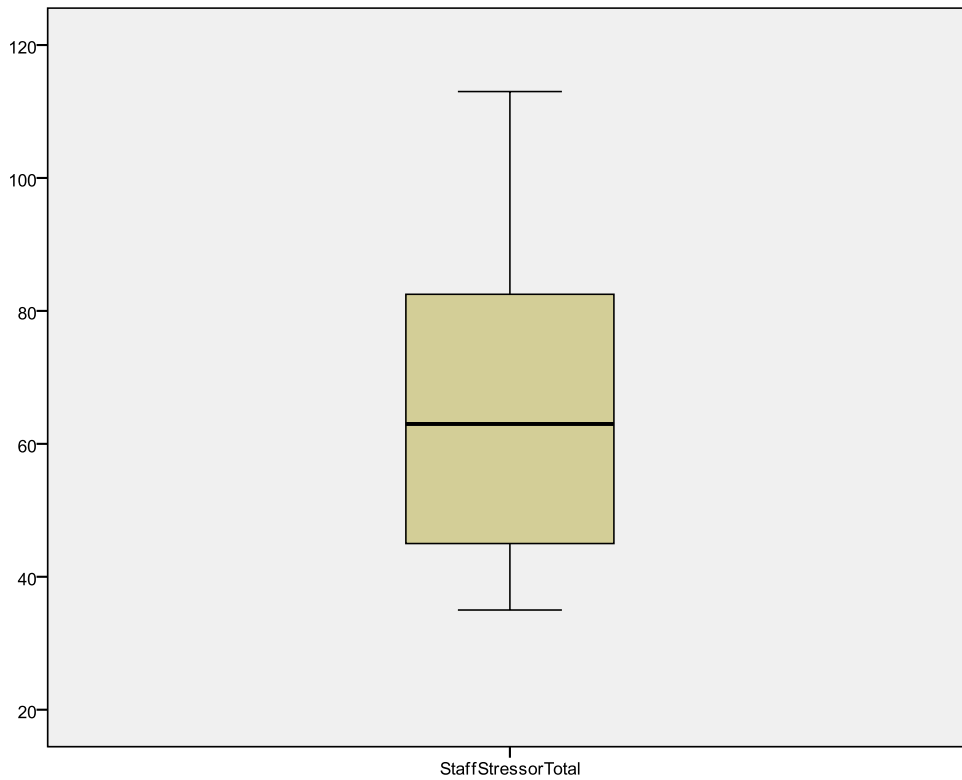
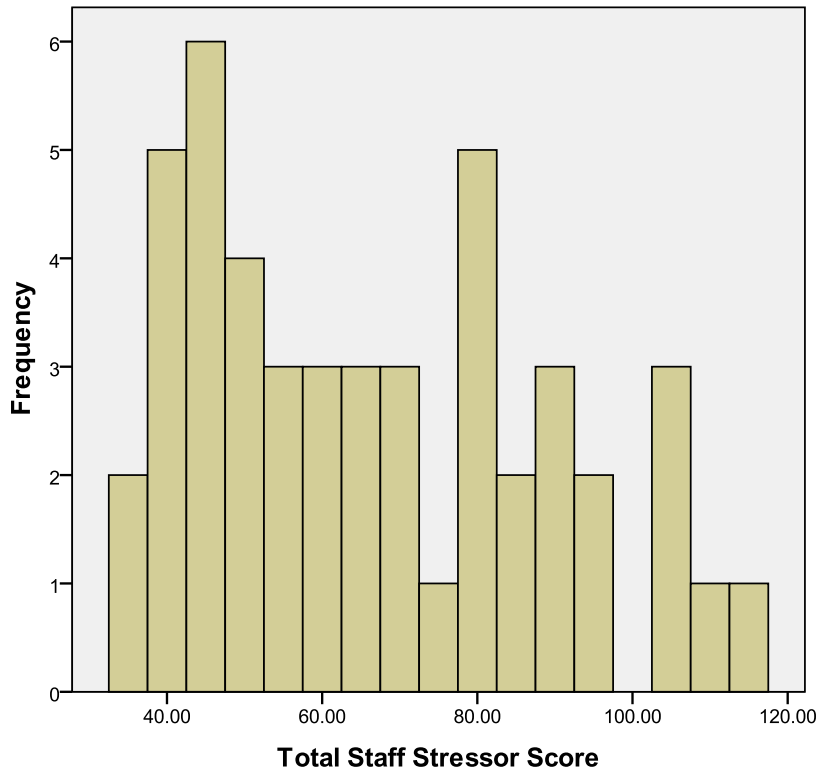
1.2. Challenging behaviour.

Histogram showing the frequencies of number of challenging behaviours.



1.3. Occupational demands.

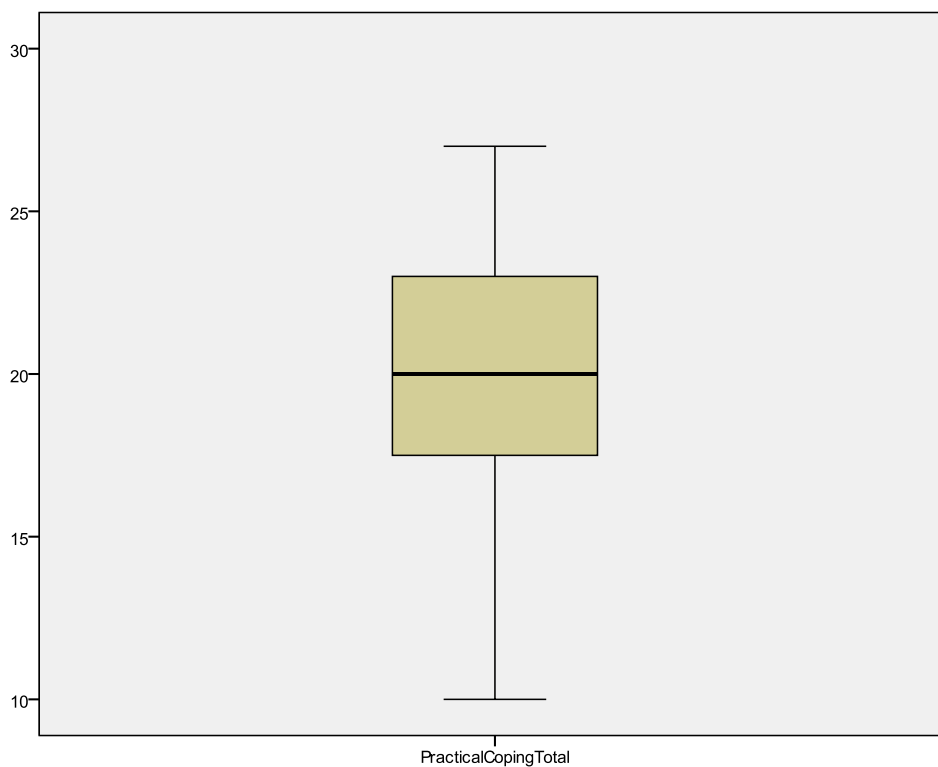
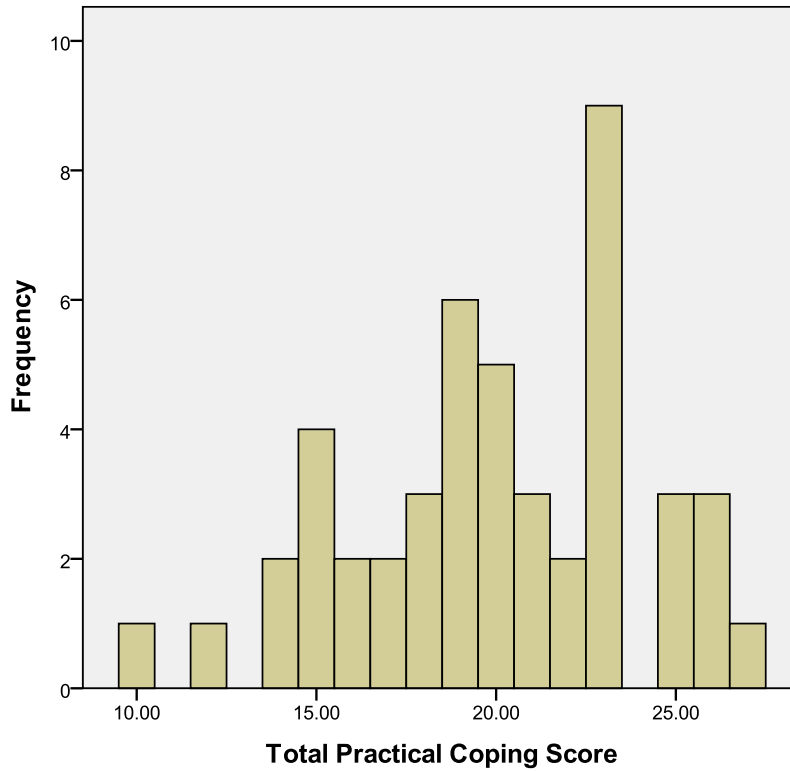
Histogram showing the frequencies of total 'staff stressor' score.



2. Resources

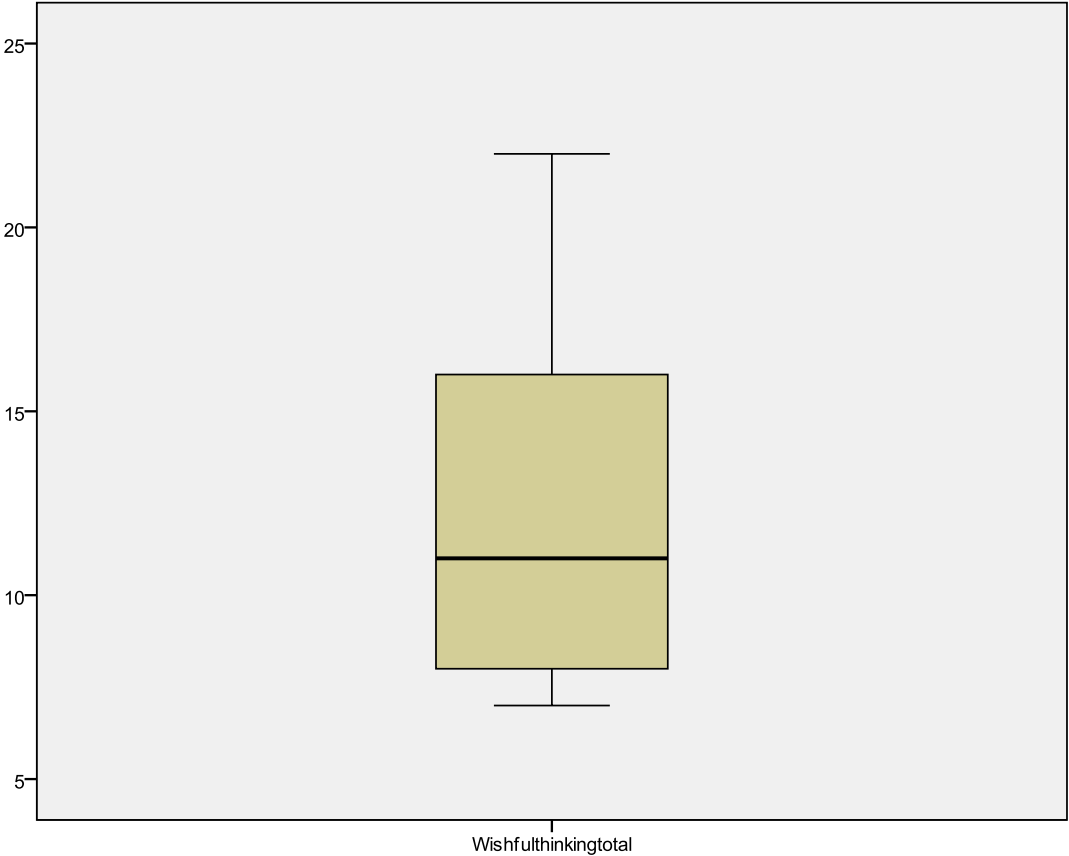
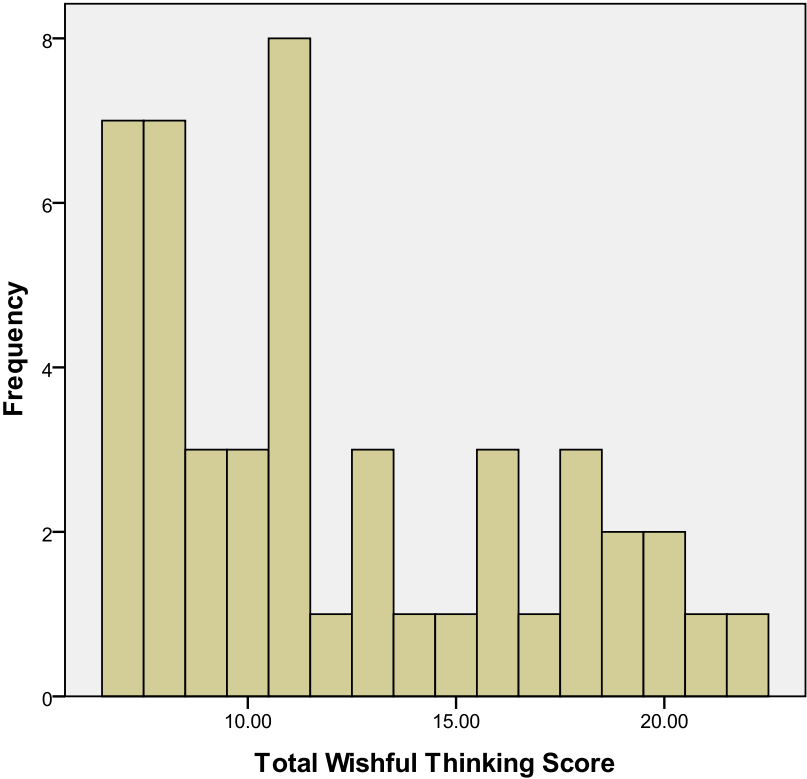
2.1. Coping mechanism 'practical coping'.

Histogram showing the frequencies of total 'practical coping' score.



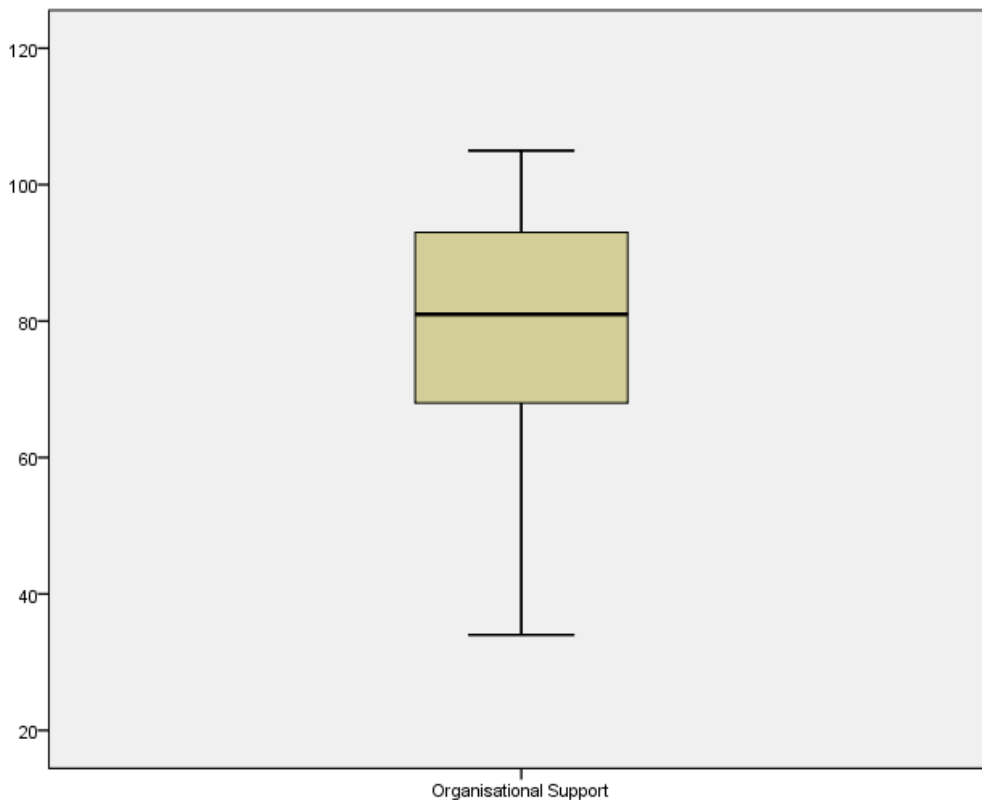
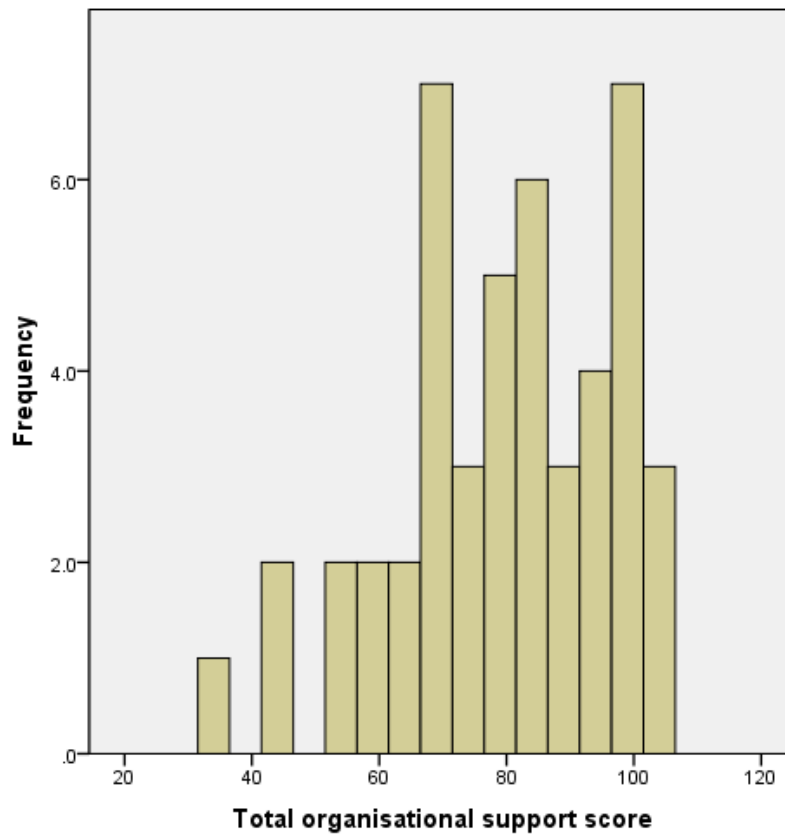
2.2. Coping mechanism 'wishful thinking'.

Histogram showing the frequencies of total 'wishful thinking' score.



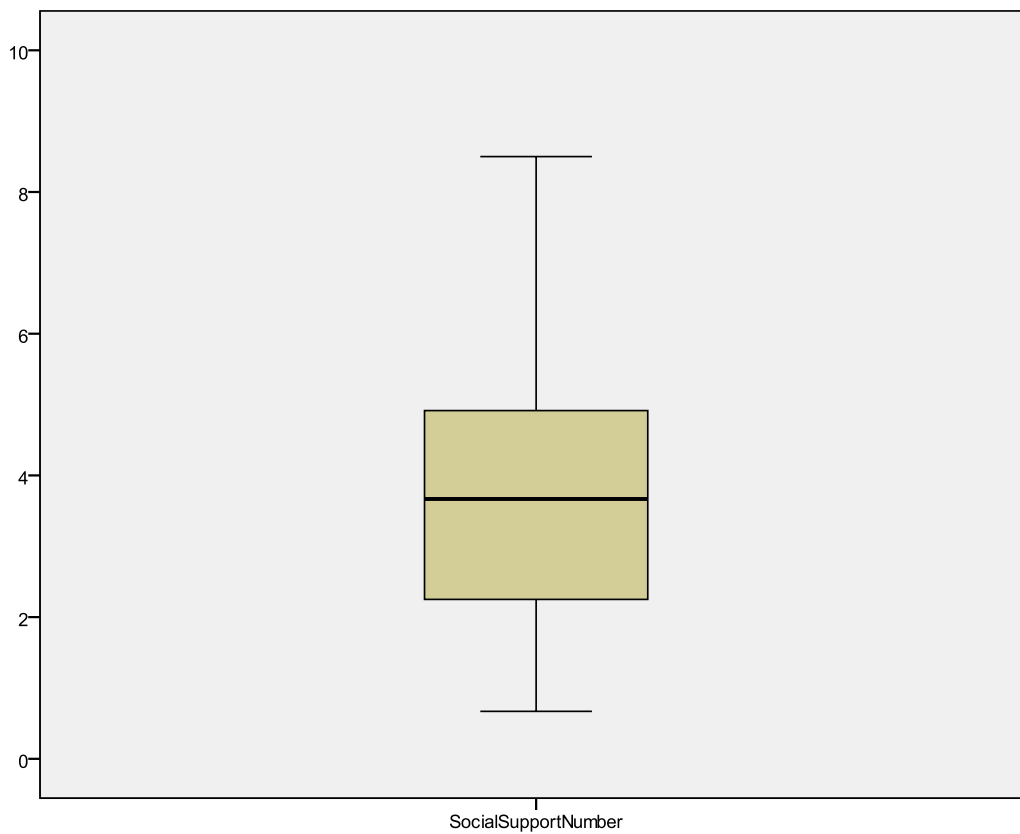
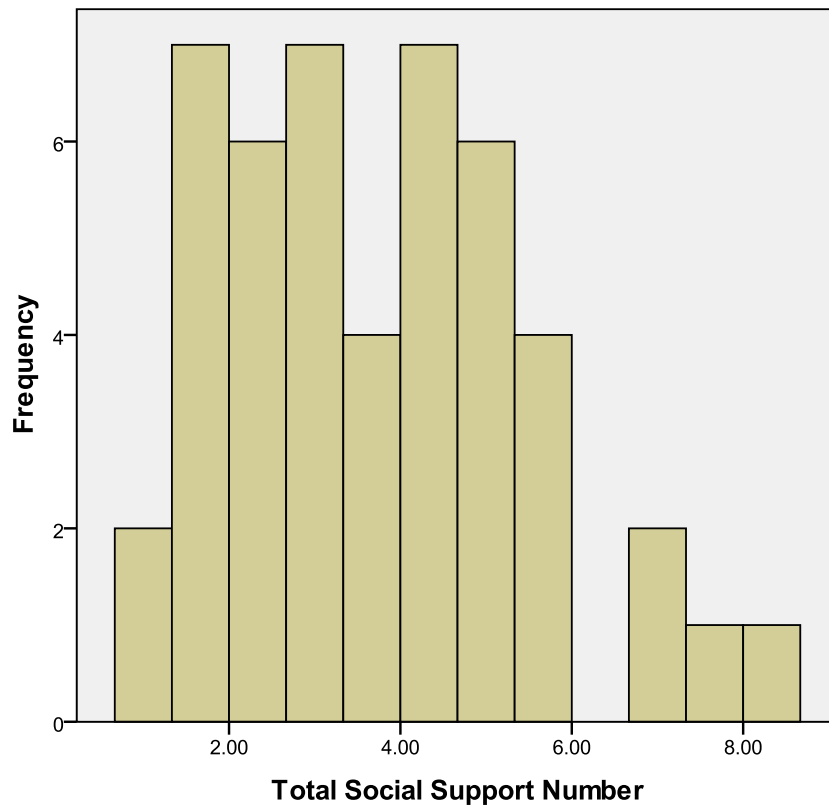
2.3. Organisational support.

Histogram showing the frequencies of total 'organisational support' score



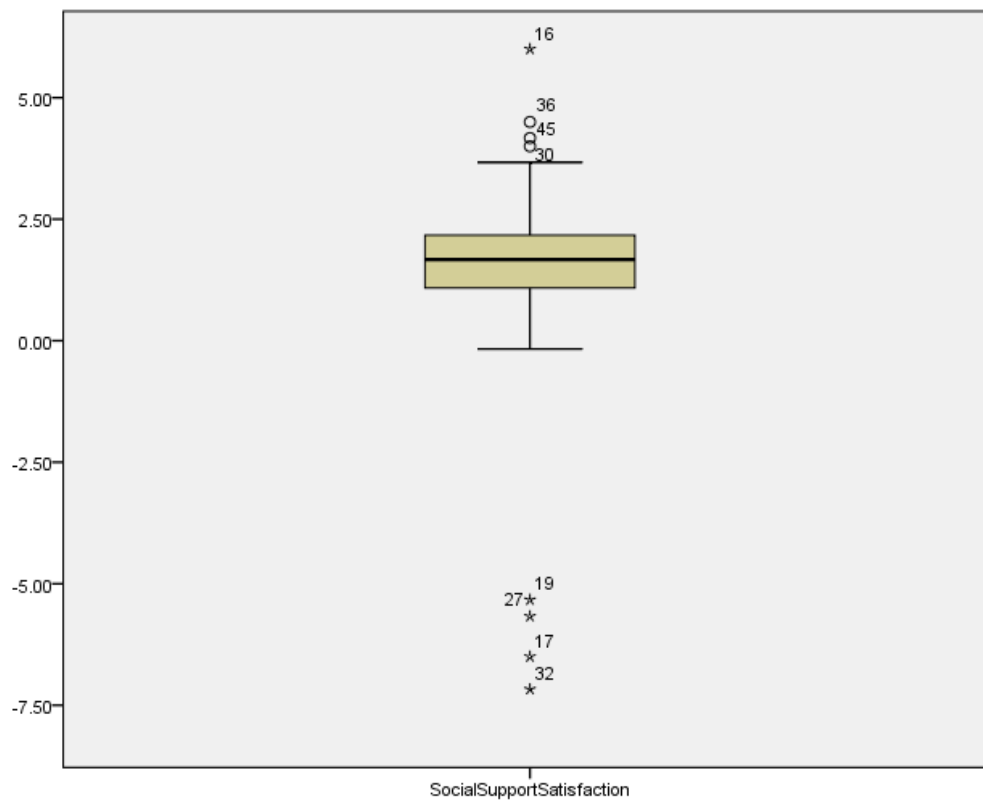
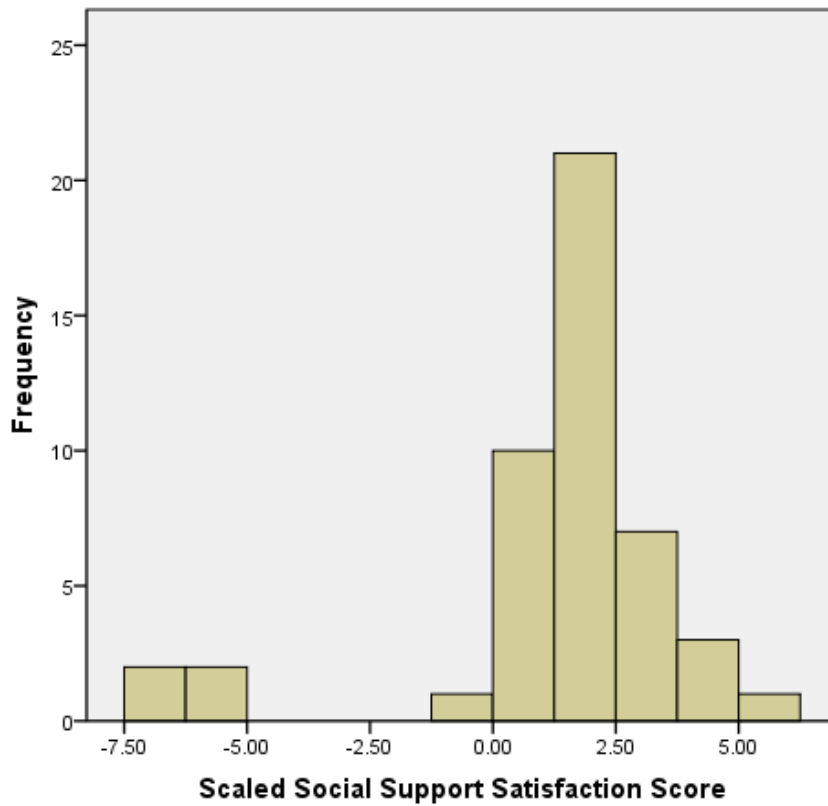
2.4. Social Support 'number'.

Histogram showing the frequencies of average number of social supports.



2.5. Social support 'satisfaction'

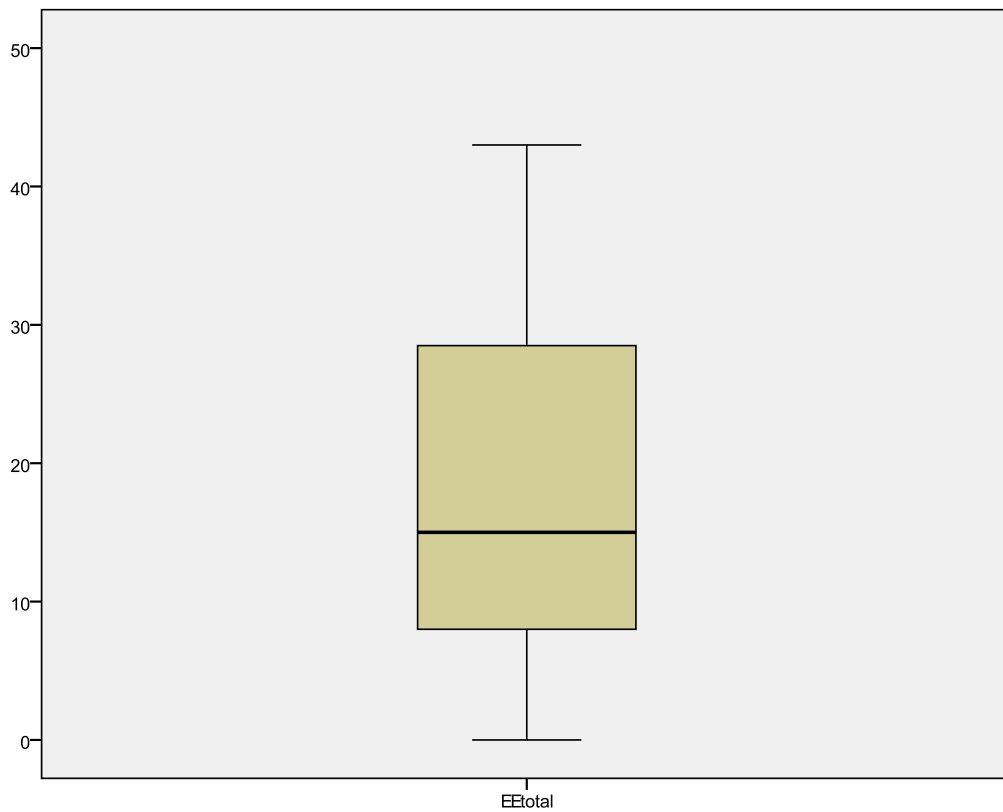
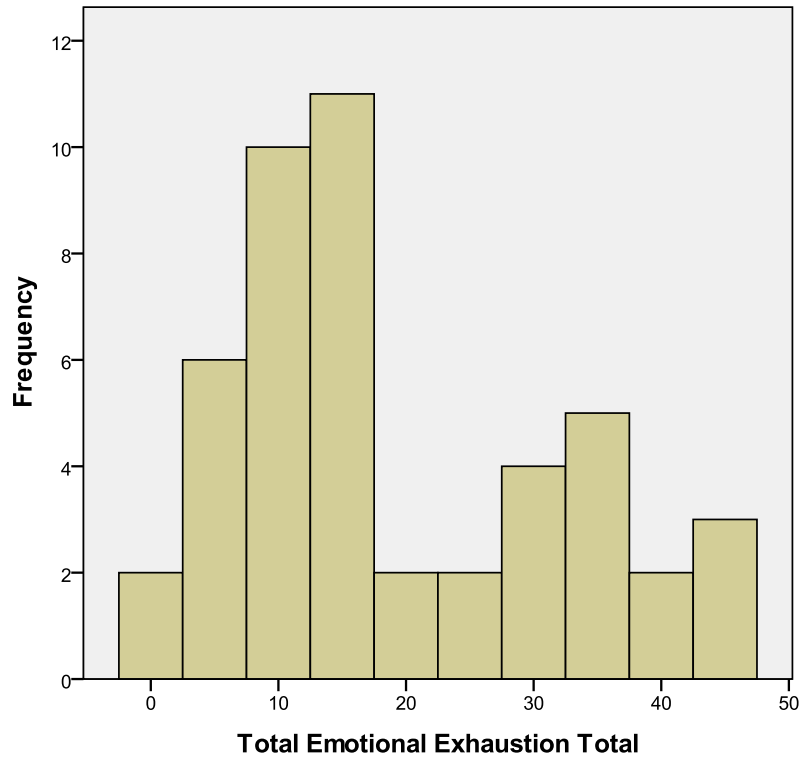
Histogram showing the frequencies of satisfaction with social support scaled score.



3. Appraisals

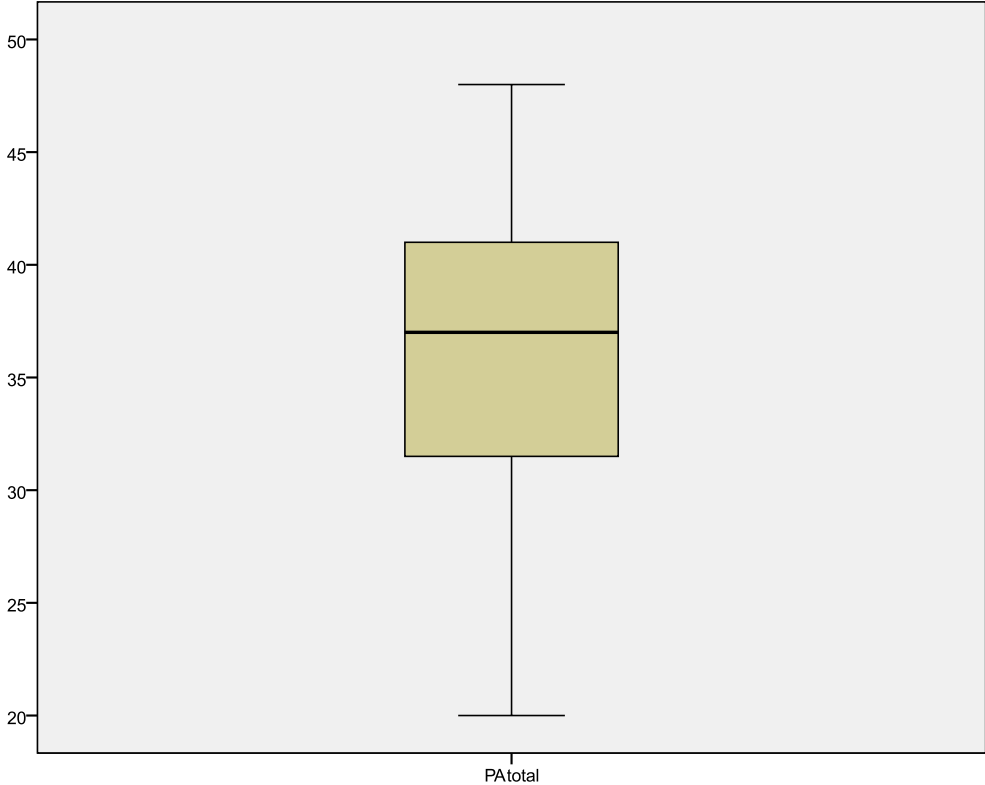
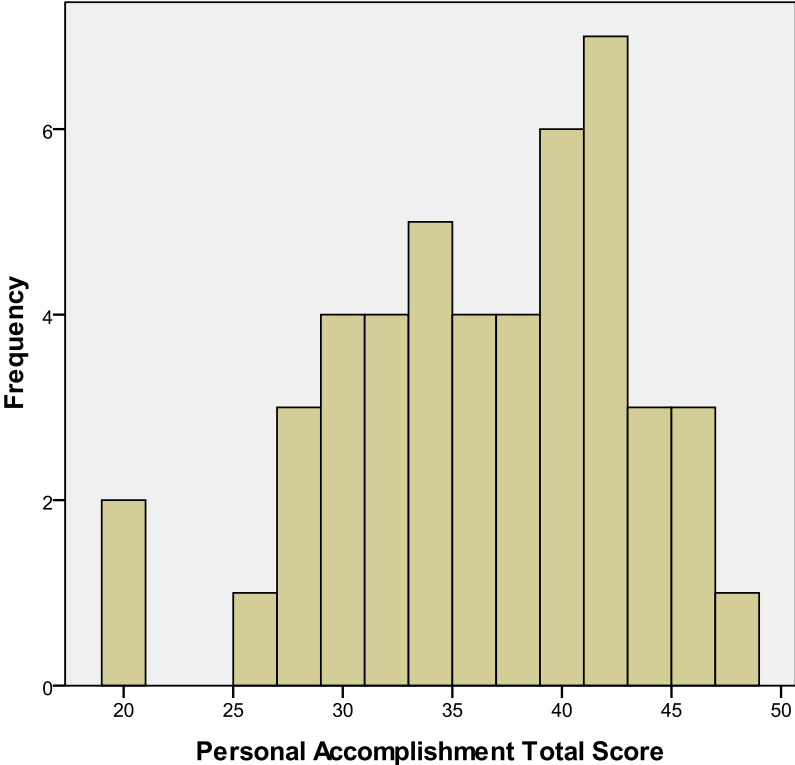
3.1. Emotional exhaustion.

Histogram showing the frequencies of total 'emotional exhaustion' score.



3.2. Personal accomplishment.

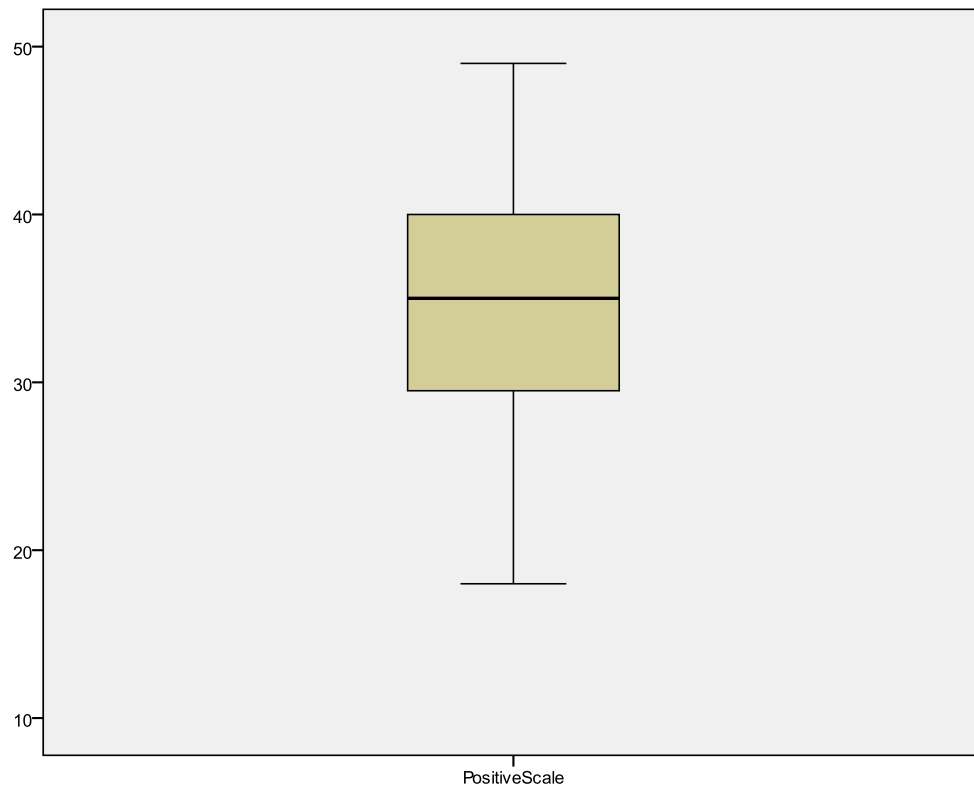
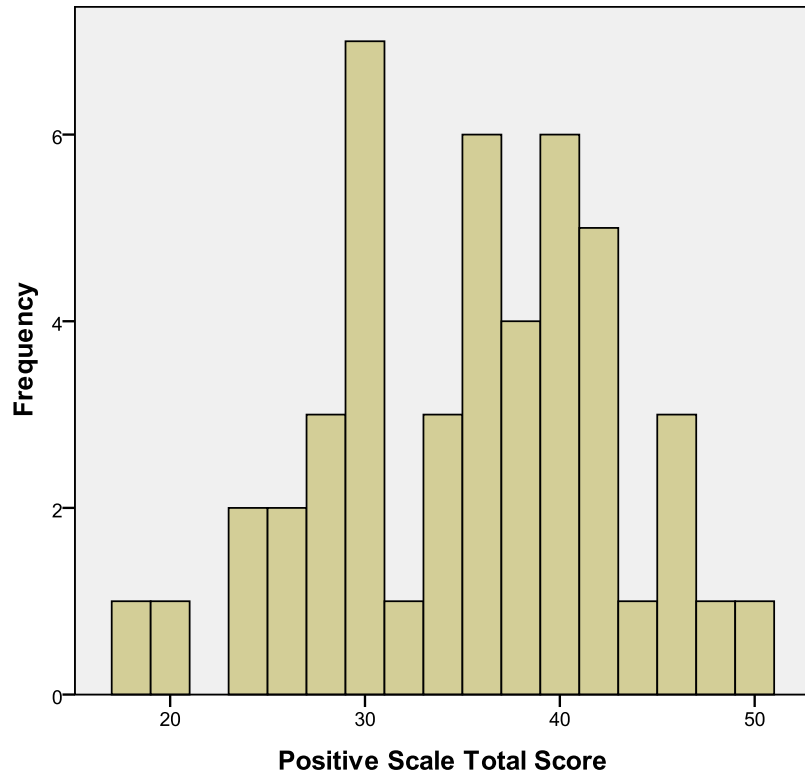
Histogram showing the frequencies of total 'personal accomplishment' scores.



4. Outcomes.

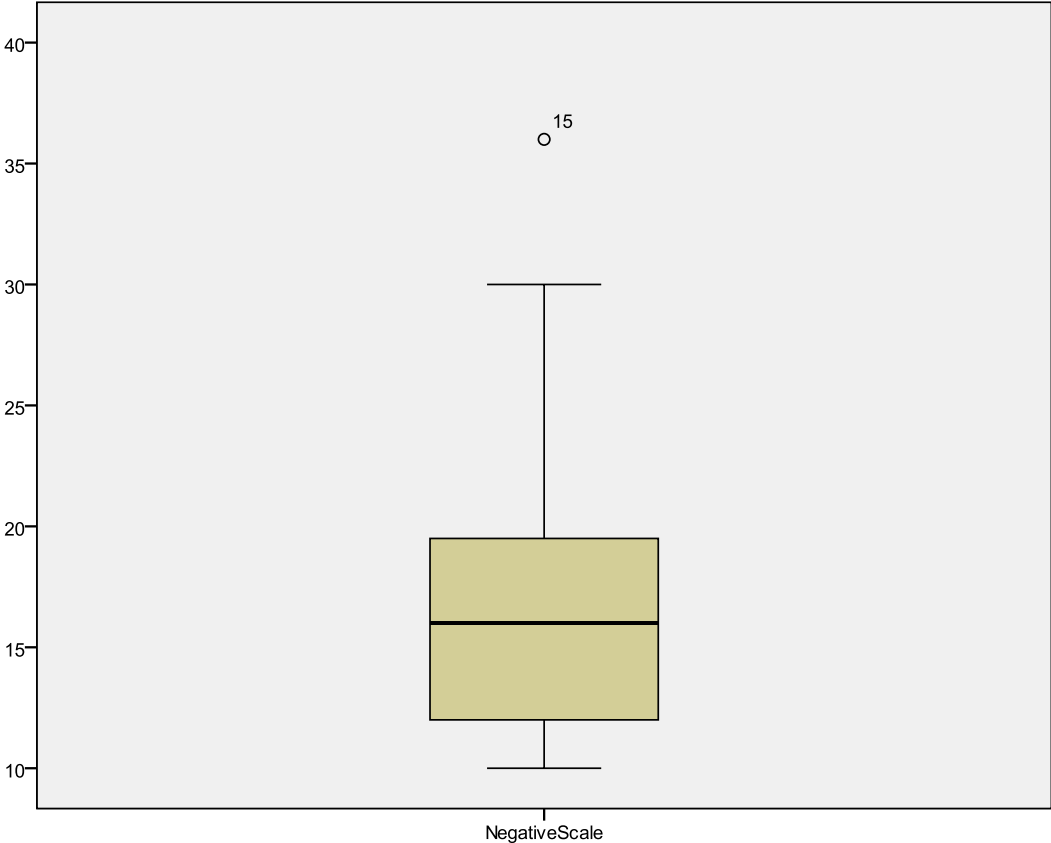
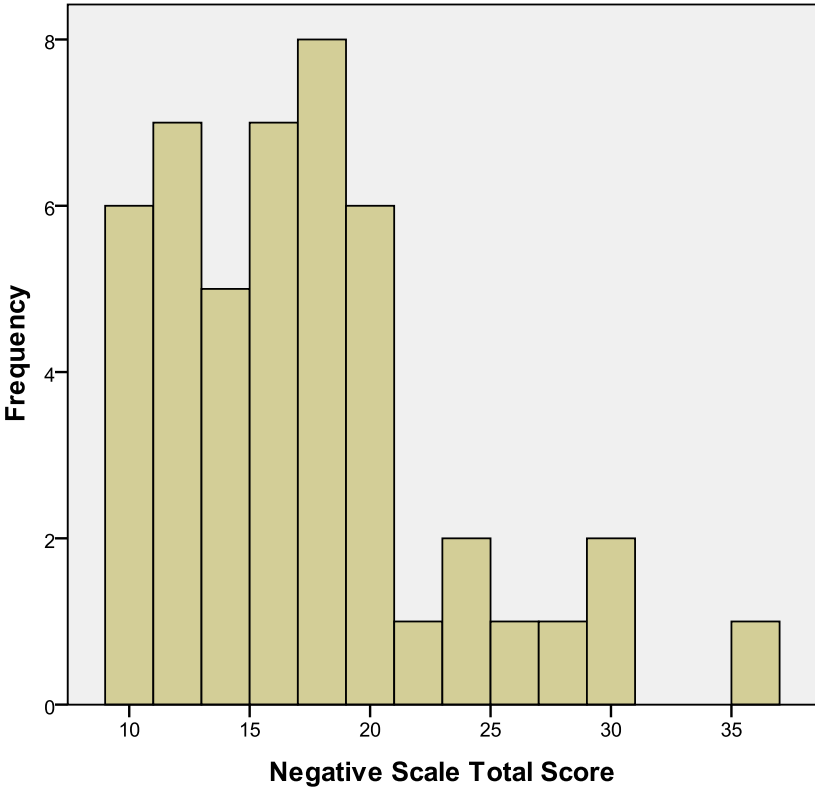
4.1. Positive Affect.

Histogram showing the frequencies of total 'positive scale' score.



4.2. Negative Affect.

Histogram showing the frequencies of total 'negative scale' scores.

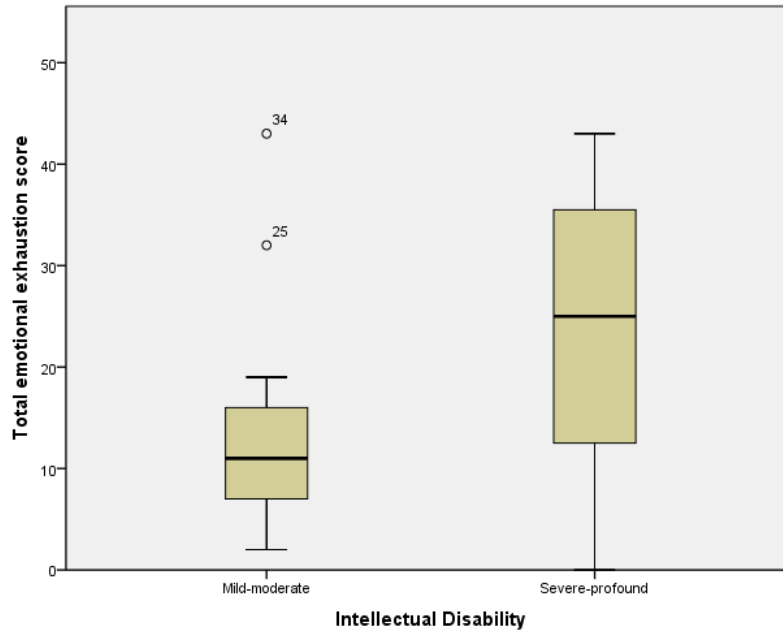


Appendix H

Box plot, scatter graphs and SPSS output for the main results.

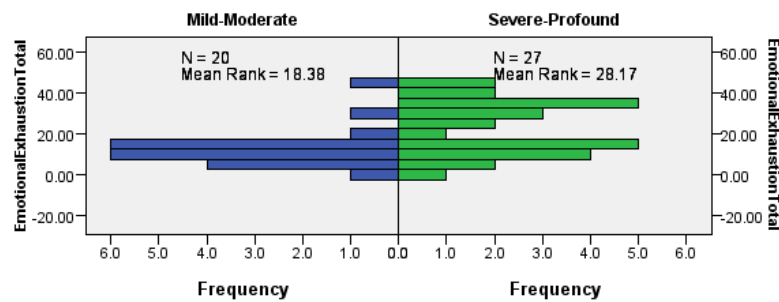
Hypothesis 1. Intellectual disability group and emotional exhaustion.

Box plot showing emotional exhaustion for each group of intellectual disability.



Independent-Samples Mann-Whitney U Test

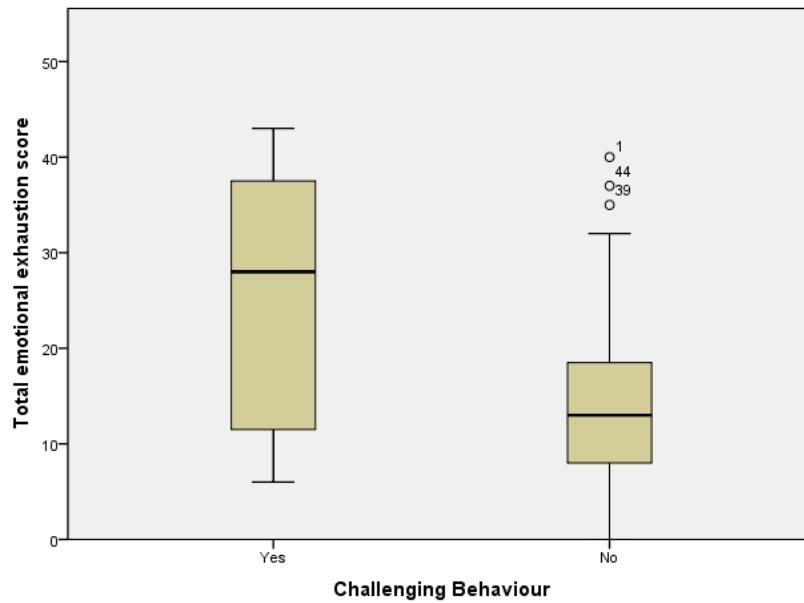
LDGroup



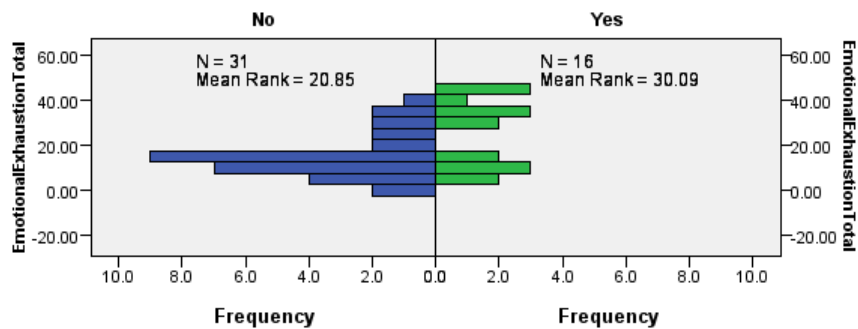
| | |
|---------------------------------------|---------|
| Total N | 47 |
| Mann-Whitney U | 382.500 |
| Wilcoxon W | 760.500 |
| Test Statistic | 382.500 |
| Standard Error | 46.415 |
| Standardized Test Statistic | 2.424 |
| Asymptotic Sig. (2-sided test) | .015 |

Hypothesis 2. Challenging behaviour and emotional exhaustion.

Box plot showing emotional exhaustion for participants who experienced behaviours as challenging and participants who did not.



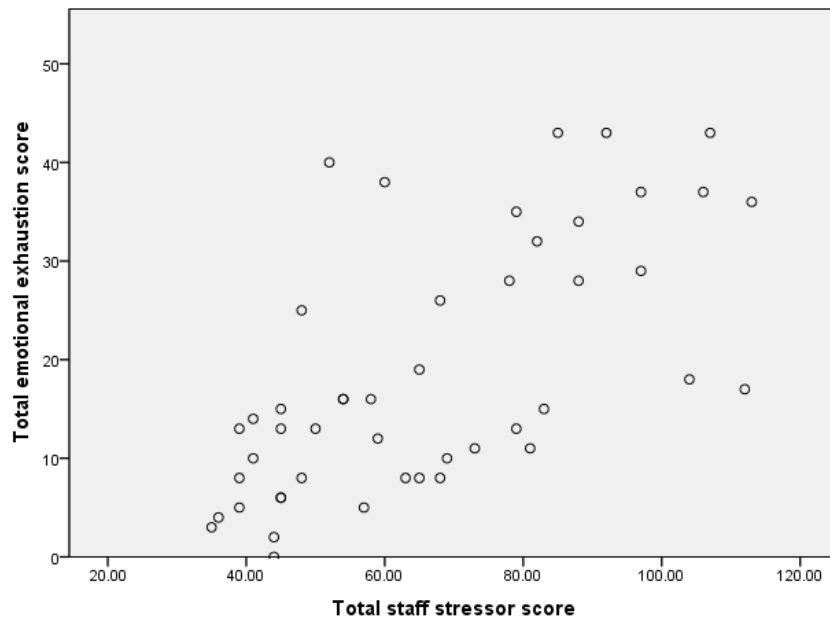
Independent-Samples Mann-Whitney U Test ChallengingBehaviour



| | |
|---------------------------------------|---------|
| Total N | 47 |
| Mann-Whitney U | 150.500 |
| Wilcoxon W | 646.500 |
| Test Statistic | 150.500 |
| Standard Error | 44.484 |
| Standardized Test Statistic | -2.192 |
| Asymptotic Sig. (2-sided test) | .028 |

Hypothesis 3. Organisational demands and emotional exhaustion.

Scatterplot of organisational demands and emotional exhaustion.



Correlations

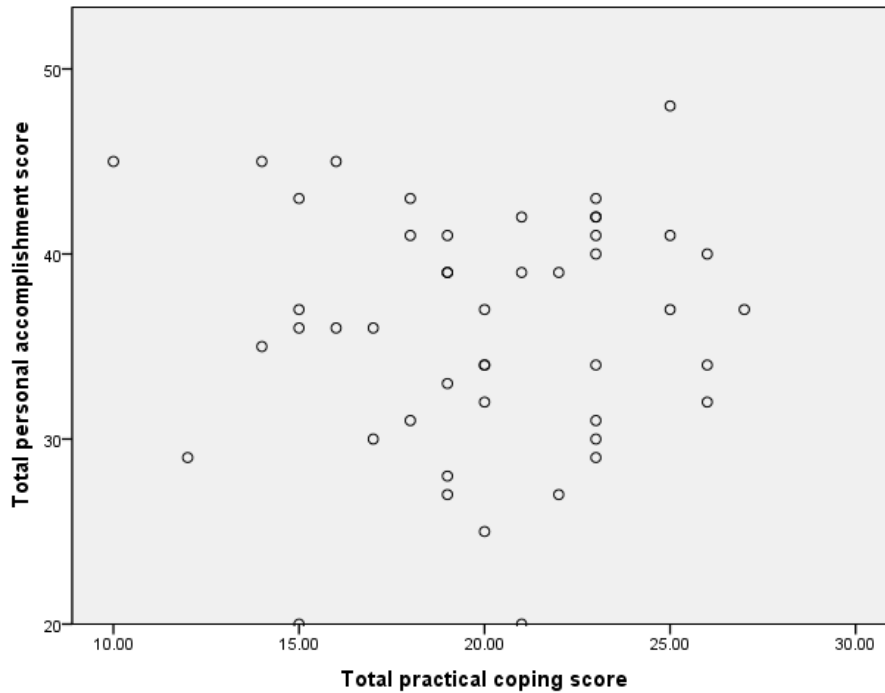
| | | Staff Stressor Total | Emotional Exhaustion Total |
|----------------------------|----------------------------|-------------------------|----------------------------|
| Spearman's rho | Staff Stressor Total | Correlation Coefficient | 1.000 |
| | | Sig. (2-tailed) | .000 |
| | | N | 47 |
| | Bootstra | Bias | .000 |
| | p ^a | Std. Error | .082 |
| | | 95% Confidence Interval | Lower Upper |
| Emotional Exhaustion Total | Emotional Exhaustion Total | Correlation Coefficient | .690** |
| | | Sig. (2-tailed) | .000 |
| | | N | 47 |
| | Bootstra | Bias | -.012 |
| | p ^a | Std. Error | .082 |
| | | 95% Confidence Interval | Lower Upper |

** . Correlation is significant at the 0.01 level (2-tailed).

a. Unless otherwise noted, bootstrap results are based on 1000 bootstrap samples

Hypothesis 4. Practical coping and personal accomplishment.

Scatterplot of personal accomplishment and practical coping.



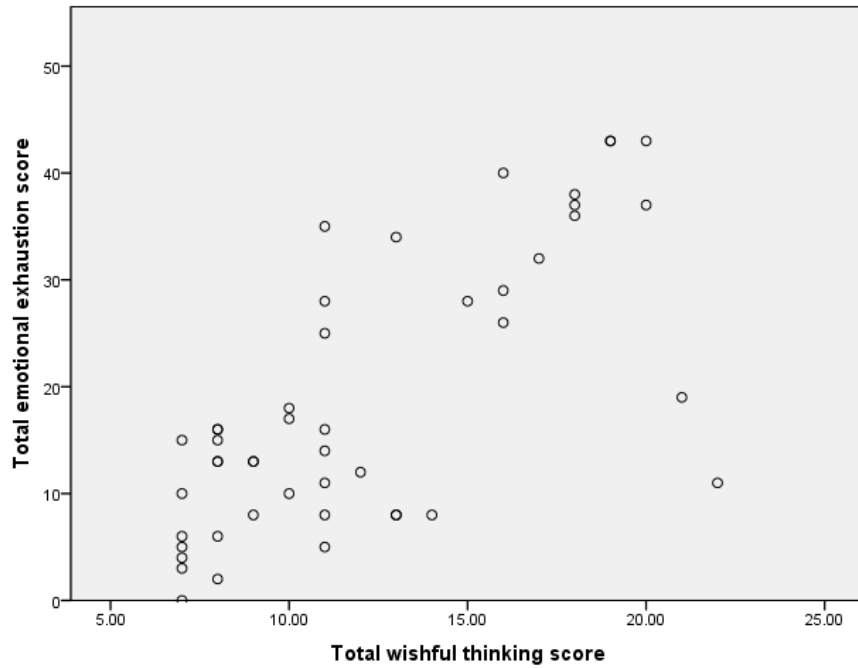
Correlations

| | | Practical Coping Total | Personal Accomplishment Total | |
|-------------------------------|-----------------------------|------------------------|-------------------------------|-------|
| Practical Coping Total | Pearson Correlation | 1 | .021 | |
| | Sig. (2-tailed) | | .889 | |
| | N | 47 | 47 | |
| | Bootstrap ^a Bias | 0 | -.003 | |
| | Std. Error | 0 | .151 | |
| | 95% Confidence Interval | Lower | 1 | -.276 |
| | Upper | 1 | .303 | |
| Personal Accomplishment Total | Pearson Correlation | .021 | 1 | |
| | Sig. (2-tailed) | .889 | | |
| | N | 47 | 47 | |
| | Bootstrap ^a Bias | -.003 | 0 | |
| | Std. Error | .151 | 0 | |
| | 95% Confidence Interval | Lower | 1 | -.276 |
| | Upper | 1 | .303 | |

a. Unless otherwise noted, bootstrap results are based on 1000 bootstrap samples

Hypothesis 5. Wishful thinking and emotional exhaustion.

Scatter plot of emotional exhaustion and wishful thinking.



Correlations

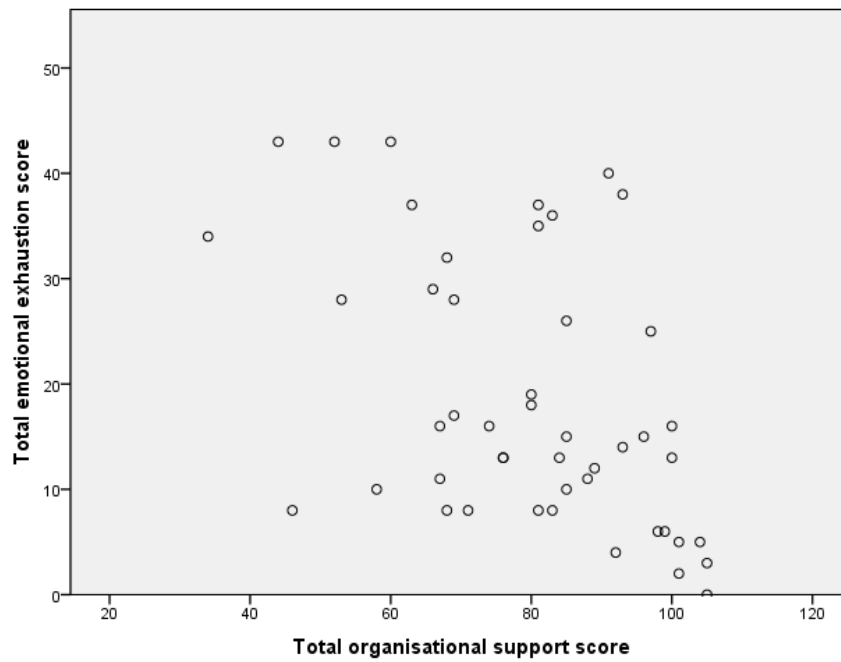
| | | | Wishful Thinking total | Emotional Exhaustion Total |
|----------------|-------------------------------|-------------------------------|-------------------------|----------------------------|
| Spearman's rho | Wishful thinking total | Correlation Coefficient | 1.000 | .677** |
| | | Sig. (2-tailed) | . | .000 |
| | | N | 47 | 47 |
| | | Bootstra Bias | .000 | -.011 |
| | | p ^a Std. Error | .000 | .100 |
| | | 95% Confidence Interval Lower | 1.000 | .426 |
| | | Interval Upper | 1.000 | .831 |
| | | Emotiona IExhaustion Total | Correlation Coefficient | .677** |
| | Sig. (2-tailed) | .000 | . | |
| | N | 47 | 47 | |
| | Bootstra Bias | -.011 | .000 | |
| | p ^a Std. Error | .100 | .000 | |
| | 95% Confidence Interval Lower | .426 | 1.000 | |
| | Interval Upper | .831 | 1.000 | |

** . Correlation is significant at the 0.01 level (2-tailed).

a. Unless otherwise noted, bootstrap results are based on 1000 bootstrap samples

Hypothesis 6. Occupational support and emotional exhaustion.

Scatterplot of emotional exhaustion and occupational support.



Correlations

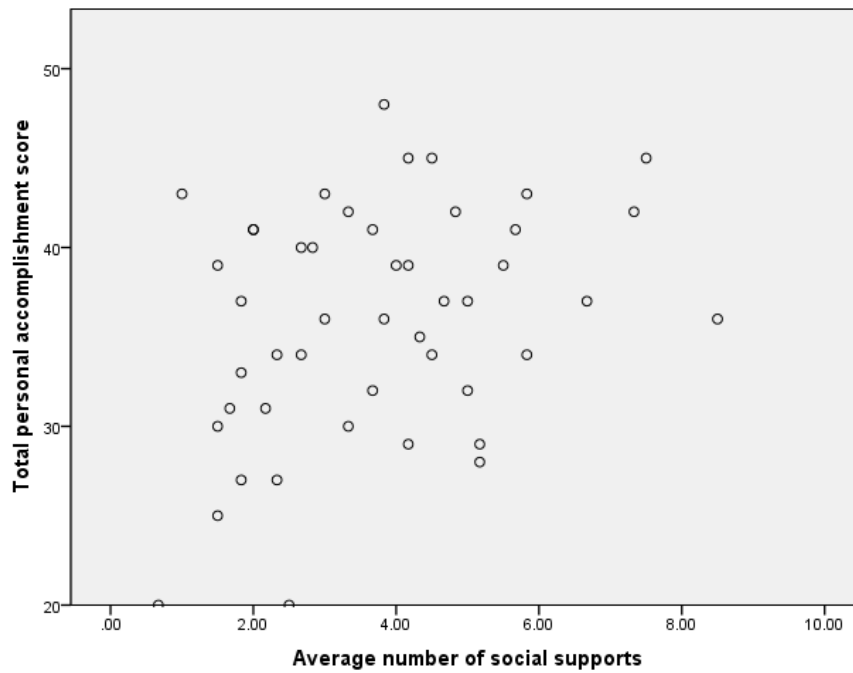
| | | | Staff Support Satisfaction Total | Emotional Exhaustion Total |
|-------------------------------|------------------------------------|-------------------------|---|----------------------------------|
| Spearman's rho | Staff Support SatisfactionTotal | Correlation Coefficient | 1.000 | -.505** |
| | | Sig. (2-tailed) | . | .000 |
| | | N | 47 | 47 |
| | | Bootstrap Bias | .000 | .002 |
| | | ^a Std. Error | .000 | .130 |
| | | 95% Confidence Lower | 1.000 | -.723 |
| | | Interval Upper | 1.000 | -.210 |
| Emotiona lExhaustion Total | | Correlation Coefficient | -.505** | 1.000 |
| | | Sig. (2-tailed) | .000 | . |
| | | N | 47 | 47 |
| | | Bootstrap Bias | .002 | .000 |
| | | ^a Std. Error | .130 | .000 |
| | | 95% Confidence Lower | -.723 | 1.000 |
| | | Interval Upper | -.210 | 1.000 |

** . Correlation is significant at the 0.01 level (2-tailed).

a. Unless otherwise noted, bootstrap results are based on 1000 bootstrap samples

Hypothesis 7. Social support and personal accomplishment.

Scatterplot of personal accomplishment and social support.



Correlations

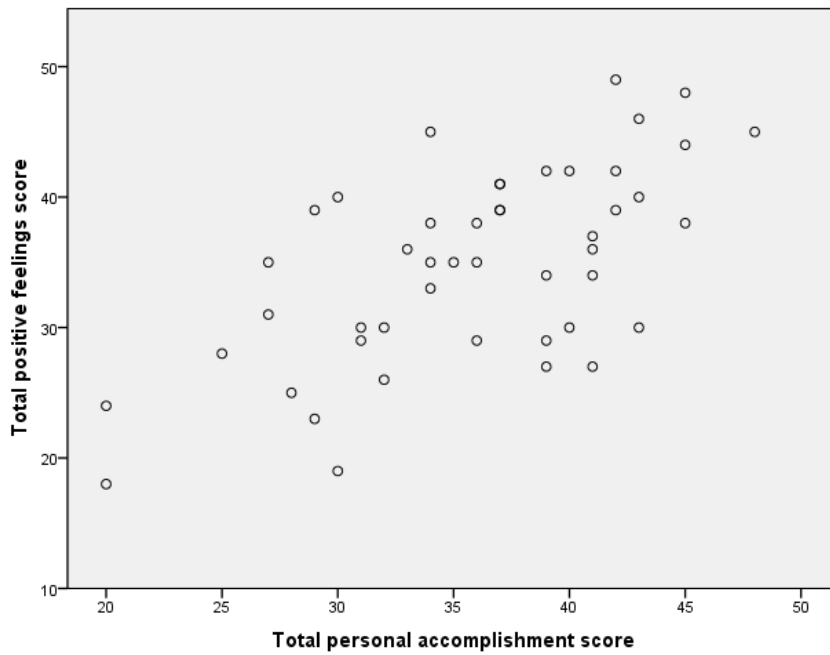
| | | Social Number | Personal Accomplishment Total |
|-------------------------------|-------------------------------|---------------|-------------------------------|
| Social Number | Pearson Correlation | 1 | .335* |
| | Sig. (2-tailed) | | .021 |
| | N | 47 | 47 |
| | Bootstrap ^a Bias | 0 | .002 |
| | Std. Error | 0 | .128 |
| | 95% Confidence Interval Lower | 1 | .065 |
| | Interval Upper | 1 | .556 |
| Personal Accomplishment Total | Pearson Correlation | .335* | 1 |
| | Sig. (2-tailed) | .021 | |
| | N | 47 | 47 |
| | Bootstrap ^a Bias | .002 | 0 |
| | Std. Error | .128 | 0 |
| | 95% Confidence Interval Lower | .065 | 1 |
| | Interval Upper | .556 | 1 |

*. Correlation is significant at the 0.05 level (2-tailed).

a. Unless otherwise noted, bootstrap results are based on 1000 bootstrap samples

Hypothesis 8. Personal accomplishment and positive affect.

Scatterplot of personal accomplishment and positive affect.



Correlations

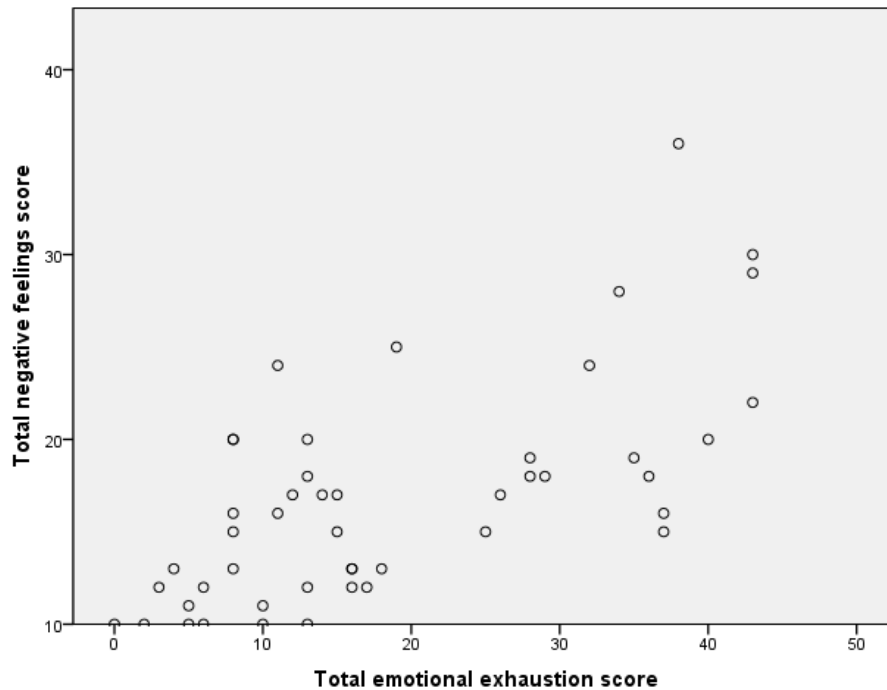
| | | Personal Accomplish- ment Total | Positive Feelings |
|----------------------------------|-----------------------------|---------------------------------------|----------------------|
| Personal Accomplishment Total | Pearson Correlation | 1 | .628** |
| | Sig. (2-tailed) | | .000 |
| | N | 47 | 47 |
| | Bootstrap ^a Bias | 0 | -.012 |
| | Std. Error | 0 | .099 |
| | 95% Confidence Lower | 1 | .401 |
| | Interval Upper | 1 | .780 |
| Positive Feelings | Pearson Correlation | .628** | 1 |
| | Sig. (2-tailed) | .000 | |
| | N | 47 | 47 |
| | Bootstrap ^a Bias | -.012 | 0 |
| | Std. Error | .099 | 0 |
| | 95% Confidence Lower | .401 | 1 |
| | Interval Upper | .780 | 1 |

** . Correlation is significant at the 0.01 level (2-tailed).

a. Unless otherwise noted, bootstrap results are based on 1000 bootstrap samples

Hypothesis 9. Emotional exhaustion and negative affect.

Scatter plot of negative feelings and emotional exhaustion.



Correlations

| | | | Emotional Exhaustion Total | Negative Feelings |
|-------------------|-------------------------------|---------------------------|----------------------------------|----------------------|
| Spearman's rho | Emotional Exhaustion Total | Correlation Coefficient | 1.000 | .648** |
| | | Sig. (2-tailed) | . | .000 |
| | | N | 47 | 47 |
| | | Bootstra Bias | .000 | -.007 |
| | | p ^a Std. Error | .000 | .098 |
| | | 95% Confidence Lower | 1.000 | .433 |
| | | Interval Upper | 1.000 | .806 |
| | | Negative Feelings | Correlation Coefficient | .648** |
| | Sig. (2-tailed) | .000 | . | |
| | N | 47 | 47 | |
| | Bootstra Bias | -.007 | .000 | |
| | p ^a Std. Error | .098 | .000 | |
| | 95% Confidence Lower | .433 | 1.000 | |
| | Interval Upper | .806 | 1.000 | |

** . Correlation is significant at the 0.01 level (2-tailed).

a. Unless otherwise noted, bootstrap results are based on 1000 bootstrap samples

Appendix I

Timeline of recruitment

- 10.06.13 Organisation A: Telephone 1, email 1 to training manager
Organisation B: Telephone 1, email 1 to head of residential services
Organisation C: Telephone 1, told do not take part in research
- 04.07.13 Organisation D: Telephone 1 with area manager, email 1 sent with information about study
Organisation B: Email 2 to head of residential services
Organisation A: Telephone 2 to training manager, arrange meeting 12.07.13
- 11.07.13 Organisation B: Email 2 from director of residential services, passing on information to medical director
Organisation B: Email 3 from medical director, telephone 1 to arrange meeting 18.07.13
- 12.07.13 Organisation A: Meeting 1 with training manager, permission given in principle further to discussion with operations manager
Organisation E: Email 1 to find out appropriate person to contact
Organisation F: Email 1 to head of adult services with study information
- 16.07.13 Organisation D: Email 2 to area manager, Email 3 received stating information passed on to psychology team and other area managers
Organisation D: Email 4 from regional director, telephone call arranged 18.07.13
- 18.07.13 Organisation D: Telephone 2 to regional director, no answer, email 5 sent requesting telephone call
Organisation B: Meeting with medical director, permission given in principle suggests liaison with head of therapy
- 19.07.13 Organisation D: Email 6 from regional director, telephone call 3 arranged 22.07.13
Organisation F: Email 2 arrange meeting to discuss research
- 22.07.13 Organisation D: Telephone 3 with regional director, interested in participating, will email psychology team to gain permission
Organisation B: Email 4 to head of therapy
- 25.07.13 Organisation F: Meeting 1 with regional manager, permission given in principle and provided with study advertising posters, written confirmation sent via email
- 05.08.13 Organisation D: Email 7 to regional director
- 09.08.13 Organisation A: Email 2 to training manager
Organisation E: Email 1 to head of quality
- 15.08.13 Organisation E: Email 2 response from head of quality, telephone 1 arranged for 19.08.13
- 19.08.13 Organisation E: Telephone 1 with head of quality, no contact leave message
- 27.08.13 Organisation A: Email 3 to training manager
Organisation D: Email 8 to regional director
Organisation D: Email 9 to area manager
Organisation E: Email 3 head of quality
Organisation A: Email 4, withdraw interest due to difficult situation within organisation, requests contact later in the year
Organisation B: Email 5, telephone 2 with head of therapy
- 28.08.13 Organisation D: Email 10 from regional director, has run study past senior team and manager, interest in participating, request next steps
- 29.08.13 Organisation D: Email 11 to regional director requesting gatekeeper written permission in order to proceed
- 12.09.13 Organisation E: Telephone 2 head of quality, no contact
- 17.09.13 Organisation D: Email 12 to area manager
Organisation D: Email 13 to regional manager
Organisation E: Email 4 to head of quality, received email 5 response, arrange telephone 3 24.09.13
- 19.09.13 Organisation B: Email 5, telephone 3 to head of therapy
Organisation B: Telephone 4 from head of therapy, interest shown, email 6 with information about the study.

- 21.10.13 Organisation B: Meeting 2 with director of residential services, interest in participating, will discuss recruitment with service managers
- 24.10.13 Organisation E: Email 6 from head of quality
- 30.10.13 Organisation E: Email 7 to head of quality
- 31.10.13 Organisation D: Email 14 to regional director
- 03.11.13 Organisation G: Email 1 with information about study
- 04.11.13 Internet Forum 1: Posted information about the study to learning disabilities (LD forum) professionals requesting services who might be interested in taking part to contact me.
 Organisation E: Telephone 3 to head of quality, no contact
 Organisation H: Telephone 1 service manager, email 1 sent with study information to be passed on to the human resource department
 Organisation D: Telephone 4 to area manager, waiting for psychology department to get back to her, email 15 sent requesting psychology department contact details.
 Person A: Email 1 in response to LD forum advertisement, providing written permission to advertise through their service, emailed 2 recruitment poster
- 06.11.13 Person B: Email 1 in response to LD forum advertisement, email 2 sent with information to pass on to Learning disability home managers
 Clinical psychologist 1: Email 1 requesting advice about local service providers to contact about my research, email forwarded on to learning disabilities nurse.
- 15.11.13 Clinical psychologist 2: Email received in response to LD forum advertisement, emailed information about study to forward on to colleagues
- 18.11.13 Organisation G: Email 2 received, interest in taking part, email 3 response with further information
 Organisation E: Telephone 4 head of quality, no contact
- 19.11.13 Organisation G: Email 3 written permission received to recruit through services
 Learning disability nurse: Email 2 response from local learning disabilities nurse with information about local services to contact
- 25.11.13 Organisation E: Telephone 5 with head of quality, asks me to email behavioural specialist to continue discussions, email 8 sent
- 26.11.13 Organisation D: Telephone 5 to regional manager, waiting for permission, asks me to follow up directly with psychologist
- 28.11.13 Attend Learning Disability Today Conference in London, speak to organisations that meet study criteria with information stalls:
 - Organisation H: talk with director of operations and provide information about study, given email contact to follow-up
 - Organisation I: talk with and provide information, given email contact to follow-up
 - Organisation J: talk with, given email contact to pass on information
 - Organisation K: talk with, conduct internal research only
 - Organisation L: talk with, currently conducting other research project, not interested at the moment
 - Organisation M: speak with, currently in period of transition, may be interested in future
- 02.12.13 Organisation H: Email 1, follow up conversation
 Organisation D: Telephone 6 with psychologist, interested in taking part, email 16 sent with information about the study and letter of ethical approval
- 03.12.13 Organisation I: Email 1, following up conversation
- 04.12.13 Organisation J: Email 1 with information about the study
 Organisation B: Email 7 to director of residential services
 Organisation E: Email 9 to behavioural therapist
 Organisation A: Email 5 to training manager, explore timing being better
- 05.12.13 Organisation B: Email 8 from director of residential services, permission given to telephone residential services and arrange meetings or post advertising poster and recruitment letters
- 06.12.13 Organisation A: Email 6 from training manager, will discuss study with operations manager
- 10.12.13 Organisation A: Email 7 to training manager.

- 11.12.13 Organisation G: Email 4, received ethical approval, email recruitment letter and survey link to be distributed to staff.
 Organisation N: Email 1 clinical psychologist with initial study information
 Organisation B: Telephone 5-7 with three services, arrange to post 45 recruitment letters and study posters to two services
- 12.12.13 Organisation B: Telephone 8 with service, arrange to post 20 recruitment letters and study posters
- 13.12.13 Organisation A: Email 6 from training manager, interested in study, arrange meeting on 06.01.13
 Organisation N: Email 2 from clinical psychologist, will pass on information to clinical director
- 16.12.13 Organisation N: Email 3 from clinical psychologist with permission from director to recruit, email 4 requesting advice on how to proceed.
 Organisation B: Telephone 9 with service, arrange to send 35 recruitment letters and study posters
- 06.01.14 Organisation A: Meeting 2 with training manager and head of operations, interested in participating, provide 100 recruitment letters and advertising posters, request written permission to be emailed
- 07.01.14 Organisation B: Telephone 10-12 with three services, arrange to send 20 recruitment letters, arrange to attend staff meeting on 29.01.14
- 08.01.14 Organisation E: Email 10 to behavioural therapist
 Organisation D: Email 17 to psychologist
- 16.01.14 Organisation N: Email 5 to clinical psychologist, email 6 response stating I can proceed by contacting service managers directly
- 20.01.14 Organisation O: Telephone 1 with training co-ordinator, email 1 with study information to pass on to service manager.
- 22.01.14 Organisation N: Telephone 1-3 with service managers, arrange to attend two staff meetings and to email information about the study to the third to be distributed amongst staff
- 27.01.14 Organisation H: Email 2 to director of operations.
 Organisation I: Email 2 follow-up
 Organisation J: Email 2 follow-up
 Organisation F: Email 3 requesting permission to recruit through services in different area
- 27.01.14 Organisation P: Email 1 with initial study information
 Organisation Q: Email 1 with initial study information
 Organisation R: Email 1 with initial study information
- 29.01.14 Organisation B: Telephone 13 to service, arrange to post 35 recruitment letters.
 Organisation B: Meeting with staff team within a service
- 05.02.14 Organisation N: Meeting 1 with staff team within a service
 Organisation F: Email 4 to head of adult services
- 09.02.14 Organisation R: Email 2 received from organisation manager, permission to proceed, email 3 with next steps
- 12.02.14 Organisation O: Meeting 1 with training co-ordinator, provide 50 recruitment letters, request email written permission
 Organisation N: Meeting 2 with staff team within service
- 17.02.14 Organisation F: Telephone 1 with head of residential services, permission to recruit through further services, email 5 with link to study to be forwarded on.
 Organisation P: Telephone 1, email 1 sent to service manager with study information
 Organisation Q: Telephone 1, email 1 with study information to be forwarded on to area manager.
- 18.02.14 Internet forum 2-4: Request permission and post study advertisement
- 19.02.14 Organisation F: Telephone 2-3 with service managers, arrange to post 70 recruitment letters to be distributed to staff
 Person C: Receive message in response to internet advertisement, email study information to be forwarded on to learning disability services

- Person D: Receive message in response to internet advertisement, forward on information about study to be passed on to service manager
- 20.02.14 Person E: Receive message in response to internet advertisement, forward on information about study to be passed on to service manager
- 24.02.14 Person F: Receive message in response to internet advertisement, forward on information about study to be passed on to colleagues in learning disability services
- 26.02.14 Organisation A: Email 7 to training manager, follow-up, request written permission
 Organisation D: Telephone 7, email 18 psychologist, email 19 response re-requesting information to be forwarded on to organisation CEO
 Person G: Receive message in response to internet advertisement, forward on information about study to be passed on to colleagues in two learning disability services
 Person H: Received message in response to internet advertisement, forward on information about study to be passed on to colleagues in learning disability services
- 05.03.14 Organisation S: Email 1 with initial study information.
- 09.03.14 Organisation S: Email 2 received, interest in participating, will pass on information to service manager, email 3 with further study information
- 12.03.14 Organisation T: Completion of online form requesting permission to advertise study through online forum
 Organisation U: Completion of online form requesting information about the appropriate person to contact to discuss study
 Organisation R: Email 3 requesting 30 recruitment letters to be posted and distributed to staff
- 30.03.14 Internet forum 5 -6: Post study advertisement
 Organisation V: Completion of online form requesting advertisement of study through online forum
 Organisation W: Email 1, follow up to service identified by Person G
 Organisation X: Email 1, follow up to service identified by Person G
- 01.04.14 Organisation D: Email 20 to psychologist, email 21 response stating they are in discussion with CEO
- 09.04.14 Organisation D: Email 22 received from psychologist with written permission to recruit through their services
- Email 23 to regional director, email 24 reply stating they will email out a brief summary of the research, the survey link and recruitment letter to their service managers
 Telephone 8 to area manager, no contact, email 24
- 15.04.14 Organisation D: Email 25 confirmation from regional director that they have emailed all the service management team in their region, to be forwarded on to their staff.
- 22.04.14 Organisation D: Telephone 9 to area manager, no contact, email 25
- 30.04.14 Close survey.