A multi-method approach to researching stress and mental health in two groups of healthcare students: nursing students and trainee clinical psychologists

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Abstract

This dissertation investigates stress and mental health in two groups of healthcare trainees using quantitative and qualitative research. Specifically, the thesis focuses on nursing students and trainee clinical psychologists. The quantitative studies adopt a particular methodological approach that is used at the Centre for Occupational Health Psychology at Cardiff University. The method is multi-dimensional in nature, and attempts to “tap-in” to the multiple levels of the stress process without overburdening the participants or the service they provide. This approach is described in great detail throughout the thesis, and therefore this work can also act as a template for future studies that may adopt this method to investigate other populations. It is suggested that taking a multi-dimensional approach to assessing stress might be a good way to inform regulatory standards, curriculum design, and student support.

To complement the quantitative studies, qualitative studies were run to investigate stressors and coping strategies in mental health nursing students and trainee clinical psychologists. Many of the reported stressors were common across the two groups whereas others were specific to the individual population. For example, similarities between the groups included conflict with members of staff, problems in their home life, and ‘being a student/trainee’, whereas differences included the level of support received. That is, trainee clinical psychologists generally reported feeling well supported, whereas mental health nursing students reported inadequate support. Furthermore, there were additional barriers to accessing support for mental health nursing students, such as gaining access to counselling services during busy periods.

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Declaration

This work has not been submitted in substance for any other degree or award at this or any other university or place of learning, nor is being submitted concurrently in candidature for any degree or other award.

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This thesis is being submitted in partial fulfillment of the requirements for the degree of ……(insert MCh, MD, MPhil, PhD etc, as appropriate)

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This thesis is the result of my own independent work/investigation, except where otherwise stated. Other sources are acknowledged by explicit references. The views expressed are my own.

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Chapter 1: Introduction

1.1 Objectives of thesis

The aim of this thesis is to investigate stress and mental health in two groups of healthcare trainees. Specifically, the thesis will focus on nursing students and trainee clinical psychologists. This will be approached using both quantitative and qualitative methodology.

The quantitative studies in the thesis adopt a particular methodological approach that has been developed at the Centre for Occupational Health Psychology at Cardiff University. This approach is described in great detail throughout, and therefore this work can also act as a template for future studies that may adopt this method to investigate other populations.

To complement the quantitative studies, qualitative studies were run to investigate stressors and coping strategies in mental health nursing students and trainee clinical psychologists.

The over-arching objectives of the thesis are:

1) To review the literature on stress and coping in two groups of healthcare professionals in training; nursing students and trainee clinical psychologists.
2) To describe a multi-dimensional approach to measuring stress to inform other researchers who may wish to implement this approach in their own work.
3) To test the Demands Resources and Individual Effects (DRIVE) model (Mark & Smith, 2008).

4) To explore the effects of multiple factors in the prediction of mental health problems for nursing students and trainee clinical psychologists.
5) To explore stressors and coping strategies further, using a thematic analysis of qualitative interviews.

1.2 Outline of the thesis

The thesis consists of three phases of research. Phase 1 involves a literature review of the area (chapter 2) and an introduction to a multi-dimensional approach to stress measurement (chapter 3). Phase 2 focuses on stress and mental health in nursing students using quantitative and qualitative research methods (chapters 4 and 5). Phase 3 investigates stress and mental health in trainee clinical psychologists using quantitative and qualitative research methods (chapters 6 and 7). The thesis then concludes by focusing on the implications and possible future research directions (chapter 8).

Chapter 1 – Introduction

Chapter 1 serves as an introduction, setting out the objectives and structure of the thesis for the reader.

Phase 1:

Chapters 2 and 3 – Literature review and a multi-dimensional approach to measuring stress

Chapter 2 is a general review of the area and begins by discussing stress models. In particular, the problems in defining stress and the problems involved in trying to measure the concept are discussed. The chapter then focuses on stress in

healthcare students, and, more specifically, nursing students and trainee clinical psychologists.

Chapter 3 presents a multi-dimensional approach to measuring stress used at the Centre for Occupational and Health Psychology at Cardiff University and tests the predictions described in Demands Resources and Individual Effects Model (Mark & Smith, 2008), with single items and additive effects of combinations of variables.

Phase 2:

Chapters 4 and 5 – Nursing students

Chapter 4 presents a longitudinal multi-dimensional study focusing on a sample of nursing students. The academic, clinical and personal sources of stress are the focus of this investigation.

Chapter 5 presents a qualitative study focusing on mental health nursing students. Thematic analysis was used to explore the main stressors and coping strategies in this group.

Phase 3:

Chapters 6 and 7 – Trainee clinical psychologists

Chapter 6 presents a longitudinal multi-dimensional study focusing specifically on a sample of trainee clinical psychologists. Individual differences are the focus of this investigation.

Chapter 7 uses qualitative methods, specifically thematic analysis, to explore the main stressors and coping strategies in trainee clinical psychologists.

Chapter 8 – General discussion

Chapter 8 is a general discussion of the studies in the thesis. The conclusions, implications, and future directions are discussed.

A note on chapter ordering

The above chapters are ordered based on readability and not necessarily in the order in which they were conducted during the PhD project. Of note is the chapters focusing on trainee clinical psychologists (chapters 6 and 7), which occurred in an opposite manner than is presented in the thesis. That is, the qualitative component (chapter 7) was conducted before the quantitative component (chapter 6). However, all other studies in the thesis are presented in the order they were conducted.

1.3 A note on ethical approval

All the research described in this thesis has been approved by the School of Psychology Research Ethics Committee (REC) at Cardiff University (reference number: EC.13.03.05.3441GR3A2). In regards to gaining access to nursing students, the Healthcare REC at Cardiff University honoured the Psychology REC and granted permission to access their students. In regards to accessing external participants, the Cardiff REC approval was forwarded to the relevant REC at the external institutions for their consideration.

Phase 1

Literature review and an introduction to a multi-dimensional approach to measuring stress

Chapter 2: Literature review

2.1 Objectives

This chapter begins by providing an overview of the literature on stress, and outlines what is meant by the term and how it has been defined in the literature. Then, the research on stress in healthcare students is reviewed, with a specific focus on nursing students and trainee clinical psychologists.

2.2 What is stress?

Stress is now considered a major health hazard. In the United Kingdom alone, it is estimated that 440,000 people experience work-related stress levels that are making them ill (Health & Safety Executive, 2015; HSE). The HSE reported that, in 2014/15, stress accounted for 35% of all work related ill health cases and 43% of all working days lost. However, despite the clear presence and consequences of stress, occupational health researchers have found it difficult to provide a precise definition of the concept. Some researchers have defined stress as a physiological response (Selye, 1936), whilst others have concentrated on stimulus (Wolff, 1953), interactional (Karasek, 1979) or transactional (Lazarus & Folkman, 1984) elements of stress whereby the organism experiences an environment and displays a reaction to it. A brief overview of each definition will now be presented, with specific models being used as examples.

2.2.1 Stress as a response

The stress as a response approach focuses on stress from a physiological perspective and therefore focuses purely on the response of the organism, rather than the reasons and causes behind the response. Hans Selye (1936) proposed the General Adaptation Syndrome (G-A-S), which is a response-based theory of stress. The G-A-S suggests that stress is a non-specific physiological response of an organism to any demand placed upon it. There are three stages of response identified in this theory: 1) the alarm stage, 2) the resistance stage, and 3) the exhaustion stage. The first stage involves an initial alarm reaction, in which a 'fight or flight' response to the stressor is activated. During this stage the body releases adrenaline, and a wide range of psychological mechanisms make attempts to overcome the stressor. Second is the resistance stage, in which a persisting stressor causes the organism to respond by either adapting to the stressor and/or returning to equilibrium. However, continued resistance over a sustained period of time results in a depletion of the resources required for adaptation, and this leads to exhaustion, which is the final stage in the G-A-S. During the exhaustion stage the organisms' physiological and psychological resources will suffer dearly, and this experience, over time, will lead to disease, collapse, and eventually the death of the organism.

2.2.2 Stress as a stimulus

The stress as a stimulus perspective suggests that stress results from external pressures exerting their force on the individual. There have been two major sources of external pressures identified in the research literature: major life events (e.g. the death of a loved one) and daily stressors or 'hassles' (e.g. too many things to do). Evidence shows that daily hassles sustained over a long period of time are more

problematic to health than major life events, with profound effects on the individual's wellbeing (Brantley & Jones, 1993; Tennen, Affleck, & Armeli, 2005). Therefore, one of the main themes of the stimulus approach relating to occupational frameworks has been to identify the daily sources of stress in the workplace, with attention being directed towards physical and task situations (Smith, Anderson, & Loverich, 1995).

Daily hassles can be defined as irritating, frustrating, or distressing demands that characterise our everyday dealings with the environment (Kanner, 1981). Daily hassles are often measured along with 'uplifts', which are defined as everyday stimulus-based events that they make people feel good, glad, or satisfied (DeLongis et al., 1982). In other words, uplifts are considered the good things in our environment which can have positive consequences for health, whereas hassles are considered the bad things in the environment which can have negative consequences.

2.2.3 Summary of stimulus and response based definitions

The stimulus and response definitions of stress have added significant knowledge to the literature on stress at work. However, as research has progressed, the limitations of these approaches have become ever more apparent. For example, such one-dimensional theories do not account for individual differences such as people's attitudes, coping skills, personalities, self-esteem, perceived capabilities and network support. All of which might account for the fact that two individuals can react completely differently to the exact same situation.

2.2.4 Stress as an interaction

Interactional models tend to focus on the structural characteristics of the stress process (Cox & Griffiths, 1995). Specifically, the focus here is on which stressors lead

to which outcomes in which populations. The demand-control model (Karasek, 1979) is an often-cited interactional model which suggests an interaction between job demands and control at work. Specifically, the model proposes two testable hypotheses:

1) Workers with jobs characterised by high demands and low control find themselves at greater risk of poor psychological wellbeing and ill health.

2) Workers with jobs characterised by high demands and high control leads to well-being, learning and personal growth.

However, this model has been developed further to include a third factor, which is social support (Johnson & Hall, 1988). This Demands-Control-Support (D-C-S) theory suggests that although the interactional elements of the D-C model do exist, the level of social support an individual has will directly influence both behavioural and health related outcomes. The D-C and D-C-S models have dominated research on occupational stress over the last few decades (e.g. De Jonge, Janseen, & Van Breukelen, 1996; Dollard et al., 2010; Waldenstrom & Harenstam, 2008). The findings from these studies have shown clear evidence for the direct effects of demands, control and support on health outcomes. However, the empirical support for interactive effects is somewhat mixed (Van der Doef & Maes, 1999; Luchman & Gonzalez-Morales, 2013).

2.2.5 Stress as a transaction

Lazarus and Folkman (1984) described stress as a “particular relationship between the person and the environment that is appraised by the person as taxing or exceeding his or her resources and endangering his or her wellbeing” (p. 19). This

definition suggests that stress occurs when the individual perceives the event as threatening, and lacks the appropriate coping resources to deal with it. Lazarus and Folkman therefore proposed that stress does not arise from the person and environment separately, but rather by their relationship with one another. In this theory, it is acknowledged that an individual's perceptions and reactions to stressors differ between one person and the next, and could even change within the same individual over sustained interactions with a particular stressor (Lazarus & Folkman, 1984).

The transactional model is a useful way to understand the process people may go through when faced with a stressful event. The model describes how when an individual is faced with a situation or event, they firstly evaluate the significance of the event in terms of what is at stake. This is known as the primary appraisal stage, and refers to the judgement people make when considering whether an event is stressful, challenging, positive, controllable, or insignificant. There are three types of primary appraisals proposed in the original transactional theory; 1) *harm/loss* which refers to the appraisal of something that has already occurred, 2) *threat* which refers to the appraisal of something that might occur in the future, and 3) *challenge* which refers to how the person engages with the demand. When appraisals are benign (i.e. when an event is not considered to have threatened or have the potential to threaten wellbeing) coping is not engaged. A fourth appraisal was added later by Lazarus (2001), which was called *benefit,* and refers to when individuals search for the benefit in a demanding encounter. Appraisals can be either positive or negative (Lazarus, 2001), and different types of appraisals have been found to be associated with different types of emotions (Dewe, O'Driscoll, & Cooper, 2010; Dewe, O'Driscoll, & Cooper 2012).

Following the primary appraisal is the secondary appraisal, which involves assessing and selecting the available coping resources to deal with the stressor.

Folkman et al. (1986) defined coping as the cognitive and behavioural efforts that are carried out to help manage the demands (both internal and external) of the person-environment transaction, which is appraised by the person as taxing or exceeding his or her resources. A failure to adopt appropriate coping strategies to deal with the stressor at the second appraisal stage is likely to result in greater mental health problems for the individual (Lazarus, 1991; Cohen et al., 2008).

Two broad types of coping strategies were described by Lazarus and Folkman (1984); emotion-focused coping and problem-focused coping. Emotion-focused coping involves reappraising the relational meaning of the problem. An example of this is avoidance coping, whereby the individual avoids a stressful situation, or postpones taking any action to help resolve it (Cohen et al., 2008). This may be the only realistic option when the source of stress is outside the person's control. On the other hand, problem-focused coping aims to remove or reduce the cause of the stressor more directly (Ben-Zur, 2002). Examples include taking one step at a time to change the situation, improving time management, and obtaining instrumental social support. As emotion-focused coping does not deal with the source of stress directly, and problem-focused coping does, the latter is generally considered to be a more effective type of coping than the former (Lazarus, 1991). However, both types of coping can be used in effective and ineffective ways (Cohen et al., 2008).

Despite the popularity of the transactional model, its theoretical shift away from stimulus and response based definitions and towards a greater focus on individual level appraisals has not gone without criticism (Dewe, O'Driscoll, & Cooper, 2012). This has been the case none more so than in the occupational stress literature, where a move away from external hazards towards a greater emphasis on internal processes might serve to minimise the importance and impact of external demands (Brief &

George, 1991). Such an approach could therefore be seen as removing responsibility away from employers and onto the workers themselves, which might lead to an acceptance of poor working conditions (Mark & Smith, 2008). However, despite these criticisms, most researchers agree there should be a consideration of all possible aspects of the stress process in the work stress agenda, and this includes both internal and external considerations.

2.2.6 Conclusion of stress models

The theory described so far in this section is merely an overview of the main theoretical approaches to understanding the nature of stress. There is a wide and complex literature on the concept, and it has proven difficult for researchers in the field to provide a precise definition of the concept. In general, the interactional and transactional theories have been the most popular approaches to researching stress as these types of models, at least to some extent, not only take into account characteristics of the job, but also subjective perceptions and individual differences. In other words, interactional and transactional models do not treat all people as being the same, and acknowledge that what is stressful for one person might not be for another. Furthermore, instead of considering the individual, the group, and the workplace as separate variables that are to be manipulated independently, these types of models tend to treat them as a single analytic unit (Mark & Smith, 2008). Such an approach is likely to be more useful when considering which stress management interventions to implement in the workplace.

It is important to keep in mind the problems involved in defining stress when reviewing the literature in nursing students and trainee clinical psychologists. There is not one generally agreed way to investigating stress, and a number of approaches

currently exist. What is clear from this review is that the stress literature might benefit from taking a more holistic approach to measuring stress, which takes into account a broader range of variables important for the population being investigated. This might help us get closer to 'the truth' about stress, what exactly it is, and how we might best go about addressing it.

2.3 Stress and mental health in healthcare students

As pressure on health services increases, so too does the likelihood of excessive stress impacting on those working and training in healthcare settings (Paris & Hoge, 2010; Rossler, 2012). Stress not only has consequences for the individual worker, but also the organisation in which they work and the patients they seek to help. For example, 30% of sickness absence in the National Health Service is due to stress, with a bill to the service of around £300m-£400m per year (NHS, 2015). In the NHS staff survey (2015), 37% of staff reported feeling ill due to work-related stress, and 63% of staff reported coming in to work in the last three months despite being unable to perform their duties or meet the requirements of their role. It is therefore essential that researchers investigate stress in healthcare students, as they too are exposed to these high-stress work environments when out on clinical placements.

High levels of stress have been reported amongst healthcare students and stress has been associated with increased levels of anxiety, depression, and drug and alcohol use in these groups (Shapiro, Shapiro & Schwartz, 2000; Deary, Watson & Hogston, 2003; Alzayyat & Al-Gamal, 2014a). Reasons for high levels of stress among healthcare students may be related to the expansion of these professions over the last few years, the rate and amount of new knowledge they are required to keep up to date with, or the changes in healthcare needs and services (Jacob, Itzchak, & Raz, 2013).

Stress can affect concentration, cause deficits in problem-solving abilities, and impact on learning and memory (Kaplan & Saddock, 2000; Kuoppala et al., 2008). Therefore, stress in an important topic in need of further investigation, particularly in education settings, where it has the potential to interfere with student learning, performance and functioning.

The next stage of this review will focus on the two populations under investigation in this thesis; nursing students and trainee clinical psychologists. These healthcare professionals in training are exposed to both student (i.e. academic) and work (i.e. clinical) demands, and therefore might be particularly vulnerable to stress.

2.4 Nursing students

2.4.1 Nursing Education

The education of nurses has come under increasing scrutiny in recent times. The media is often filled with stories about the lack of care and compassion of registered nurses, and recent government enquiries have been particularly critical of the standards of current registered nurses (e.g. Francis, 2015). Much of the criticism aimed at the profession over the last few years has raised questions about how the nurses are being educated.

Over the last 20 years nursing education has moved away from an apprenticeship style model, where nurses were primarily trained in hospital settings, to degree level programmes available at higher education institutions. The current pathway to becoming a registered nurse in the UK is through completing a degree level programme recognised by the Nursing and Midwifery Council (NMC) and, within this framework, students can choose to specialise in adult nursing, children's nursing, learning disabilities nursing or mental health nursing.

All NMC recognised pre-registration courses are three years long and tend to comprise roughly 50% theory and 50% clinical placements. Students who complete this course successfully are awarded with an academic degree and gain professional registration with the NMC as a first level nurse (NMC, 2016). Although all universities that offer pre-registration nursing courses in the UK must adhere to the NMC standards, there are currently no national curricula for pre-registration nursing programmes and institutions are allowed autonomy on the structure of their training programmes.

2.4.2 Stress, coping, individual differences and mental health in nursing

The demands, control, support model has been used to understand stress in nurses, and it has been found that excessive demands and a lack of social support are common in nursing populations (Muncer et al., 2001), with levels of control being likely to differ depending on occupational grade (Williams & Smith, 2013). The demands experienced by nurses include poor wages, a lack of career opportunities, long hours, unpaid overtime, and having to accept patients even when the resources are unavailable to them (Baba & Jamal, 1991).

Nursing students have also received a deserved amount of attention by stress researchers internationally (Burnard et al., 2008; Pulido-Martos, Augusto-Landa, & Lopez-Zafra, 2012; Wolf, Stidham, & Ross, 2015). The general consensus is that nursing students are stressed (Tully, 2004; Burnard et al., 2008; Gibson, Dempster & Moutray, 2008), and that they tend to report higher levels of stress than other healthcare students (Shriver & Scott-Stiles, 2000; Stecker, 2004). For example, Stecker (2004) found that nursing students reported higher levels of stress than students in dentistry, medicine, pharmacy and physical therapy. The consequences of high levels of stress include higher levels of sickness absence and attrition (Deary et al., 2003), which are both major problems for nursing programmes worldwide (Brown & Marshall, 2008; Cameron et al., 2010; Gaynor et al., 2006).

A longitudinal study by Burnard et al. (2008) compared sources of stress amongst nursing students in five different countries and found that, while retaining individual cultural features, students from across the globe reported very similar experiences of stress. Most of the available research suggests the clinical component of the course is particularly stressful (Chernomas & Shapiro 2013, Moscaritolo 2009), with the highest levels of stress being reported around the time of the first clinical

placement (Jones & Johnston 1997; Sheu, Lin, & Hwang, 2002). Commonly reported clinical stressors include issues with placements, fear of making mistakes and interactions with other members of staff (Alzayyat & Al-Gamal, 2014a). Academic stressors include workload, examinations and fear of failure (Gibbons et al. 2008, Tully 2004), and personal and social sources of stress include family issues, financial concerns and a lack of time for leisure activities (Pryjmachuk & Richards, 2007).

Pyjmachuk and Richards (2007) conducted a cross-sectional study which investigated the most important predictors of psychological distress in a large sample of nursing students in the UK (n = 1,362). The key predictors of distress were personal stressors, rather than academic ones, leading the authors to suggest there is a need for active listening from institutions to help reduce distress in this population. The authors recommended that by improving active listening skills in personal teachers or tutors, institutions can go some way to enhancing student support and reducing stress.

In terms of work characteristics, research has shown that the emotional issues involved in the death and suffering of patients to be an important stressor for nurses (Lambert et al. 2004; Burnard et al., 2008). Timmins and Kaliszer (2002) noted that witnessing the death and suffering of patients had a particularly negative emotional impact on nursing students. To reduce the consequences of such events, and to help them deal with this aspect of their training, the authors recommended developing supportive relationships between staff and students on the ward. Blomberg et al. (2014) found that nursing students with different supervisors for each shift were more likely to report higher level of stress than students with the same supervisor throughout the placement. Furthermore, it was found that stress levels were higher in nursing students who were on placements in busy hospital departments over-crowded with patients.

It should be noted that some of the stressors reported by nursing students are inherent to the career they are working towards, and are therefore unavoidable. For example, the organisational and administrative tasks, frequent patient contact, and the nature of the caring professions are commonly reported stressors (Nolan & Ryan, 2008). For this reason, researchers have also shown a great interest in the coping strategies employed by this group (Lo, 2002; Tully, 2004). Indeed, nursing students cannot avoid some of the stressors they face during training, but how they cope with them is important in determining health and performance outcomes.

Al-Zayatt and Al-Gamal (2014b) reported that the most utilised coping strategy in nursing students was problem-focused coping, and this has also been found in studies elsewhere (e.g. Chen & Hung, 2014). However, other research has found that avoidance coping is actually the most utilised coping strategy by nursing students (Sheu et al., 2002; Shaban, Khater, & Akho-Zaheya, 2012), therefore producing conflicting results. Mixed results such as these are common in the nursing literature, and highlight the need for stress researchers to take into account a number of other factors when investigating stress. Indeed, a one-size fits all approach will not work, and it is important to consider from where the sample was drawn, the differences in the research methods employed, and the differences in the educational programme being offered.

Social support from family and friends has been found to be the most effective coping strategy for reducing stress in nursing students (Lo, 2002; Gibbons et al. 2008) and students should therefore be encouraged to seek out this type of support when possible. Institutional support is often avoided, and instead students have a tendency to deal with their difficulties on their own (Galbraith, Brown, & Clifton, 2014). Reasons for this might include fears that they may be perceived as not being able to cope with

the demands of the profession, or fears that their professional integrity might be brought into question (Burnard et al., 2007; Kernan & Wheat, 2008).

Alzayyat and Al-Gamal (2014a) conducted a review of the literature focusing on stress among nursing students during their clinical education and reported that the measurement instruments used in the reported studies varied widely. Specifically, only two measurement tools (Perceived Stress Scale; Cohen, Kamarck, & Mermelstein, 1983, and Stress in Nurse Education; Rhead, 1995) were used in more than one study, making it difficult for the authors to compare the sources and levels of stress reported. It is therefore important that researchers conduct methodological studies with the purpose of establishing and refining a standardized instrument for assessing and predicting stress among nursing students.

2.4.2.1 Individual differences

Personality is also an important consideration when reviewing the literature on stress in nursing students. A longitudinal study by Deary et al. (2003) measured sources of stress, coping, personality and intelligence in a whole cohort of 168 nursing students at the start of their course, and then at successive twelve-month intervals. The authors were interested in profiling students who qualified compared to those who dropped out of the course. It was found that the participants who dropped out scored significantly lower on conscientiousness and agreeableness than those who qualified, and participants with this particular personality profile had only a 65% likelihood of completing the course.

The authors expected trait dependent variables, such as intelligence, personality and coping style to remain consistent over time. However, it was found that significant increases in neuroticism corresponded with increases in stress, which shows the state-dependent component of this aspect of personality and how it can be

seen as a stress effect. Interestingly, the same could be said for emotion and avoidance-based coping, with increases in these coping strategies also corresponding with increases in stress (Deary et al., 2003).

Watson et al. (2008) followed a cohort of nursing students in Hong Kong (n = 158) from entry into their programme to the end of their first year of training. The aim was to study the interrelationship between a range of psychological variables including stress, personality, coping and burnout. The questionnaires they administered included the NEO Five Factor Inventory (Costa & McRae, 1992), the Coping in Stressful Situations questionnaire (Cosway et al., 2002), the 12-item General Health Questionnaire (Goldberg & Williams, 1988), the Maslach Burnout Inventory (Maslach & Jackson, 1986), and the Stress in Nursing Students questionnaire (Deary et al., 2003). It was found that participants reported higher levels of psychological morbidity and burnout at the second time point. Interestingly, and supporting the findings of Deary et al. (2003), this finding was largely explained by the personality trait neuroticism. That is, when the predictive ability of neuroticism was modelled over time, and in the presence of other possible confounding variables, it remained a strong predictor of psychological morbidity and burnout as well as a strong predictor of emotion-focused coping. Furthermore, across the two time points, neuroticism was correlated with all the dimensions of stress measured by the Stress in Nursing scale. Based on these results, it has been suggested that screening nursing students for personality before entering training might be worthwhile (Deary et al., 2003; Watson et al., 2008).

2.4.2.2 Self-perceptions

Self-esteem refers to an individual's overall perceptions of their worth (Rosenberg, 1965), and studies suggest that low self-esteem of student nurses significantly correlates with student attrition rates and depression (Azizi et al., 2013; Peterson-Graziose, Bryer, & Niolaidou, 2013). It has been argued that the presence of negative feelings such as low self-esteem in nursing students could be more problematic, and result in far more negative consequences (e.g. patient care), than for students in other disciplines (Valizadeh et al., 2016).

Edwards et al. (2010) followed a cohort of nursing students throughout their three year undergraduate course, measuring stress and self-esteem at five different time points. They found that students ended their training with lower levels of self-esteem than they had at the beginning of their training. The students who reported low self-esteem had higher stress levels, and reported that they found it harder to meet new people, lacked self-confidence, and would change things about themselves if they could.

Self-efficacy has been defined as a person's belief that he or she is capable of dealing with complex situations or tasks (Bandura, 1997). Harvey and McMurray (1994) reported that nursing students low in self-efficacy were more likely to withdraw from the course compared to those high in self-efficacy. Wu et al. (2007) reported a relationship between self-efficacy and burnout, and found that younger nurses were more likely to report lower levels of self-efficacy and higher levels of burnout than older nurses. Taken together, these findings suggests it is important to consider how the student views themselves in terms of their own worth and ability, and how this can impact on their engagement and wellbeing.

Associations have also been found between self-efficacy and performance on some of the most critical tasks a nurse can undertake. For example, Roh and Issenberg (2014) collected data from a convenience sample of 124 nursing students after a 2 hour cardiopulmonary resuscitation (CPR) skills training and testing session. It was found that nursing students who reported higher self-efficacy also had better quality CPR skills than students who reported low self-efficacy. Therefore, self-efficacy can have implications for patient care. CPR skills training sessions that can develop resuscitation proficiency through mastery learning experiences are therefore required to help improve not only the students' psychomotor skills but also their self-efficacy.

2.4.2.3 Health behaviours

Nurses play an important role in promoting positive health behaviours and influencing the lifestyle choices of their patients. However, there is much evidence that nurses do not practice what they preach (Bogossian et al., 2012; Schulter, Turner & Benefer, 2012). Miller, Alpert and Cross (2008) reported that 54% of nurses are overweight or obese, and Malik, Blake and Batt (2011) found that over half of the nurses in their sample did not participate in 30 minute moderate intensity exercise over five days a week, which is the World Health Organisation recommendation (WHO, 2011). Research shows that nurses who have a healthy lifestyle are more likely to promote health change and promotion in their patients (Esposito & Fitzpatrick, 2011). Furthermore, nurses who do not engage in healthy lifestyles are less likely to promote health change and promotion in their patients as they perceive themselves as being poor role models (Miller et al., 2008). Therefore, health concerns in nurses can have implications for patient care.

High risk health behaviours such as excessive alcohol consumption, smoking, poor diet and a lack of exercise have been reported among pre-registration nursing

students (Watson et al., 2006; Blake & Harrison, 2013). It is likely that these health behaviours are maladaptive coping strategies, which lead to poorer mental and physical health outcomes (Kainan-Yobas, He, & Lau, 2015; Deasy et al., 2016). Research has shown that alcohol consumption is not directly related to self-perceived psychological ill health in the general student population (see Wicki, Kuntsche and Gmel, 2010 for a review). Wicki et al. interpreted this finding as an indicator that alcohol is not used to relieve stress. Other researchers (Hasking, Lyvers & Carlopio, 2011; Digdon & Landry, 2013) have also considered the possibility that alcohol consumption is instead an effective but maladaptive coping strategy.

Other health behaviours, such as diet and exercise have been found to be related to stress in students. For example, Oliver and Wardle (1999) found the majority of students in their study (73%) reported snacking behaviour when stressed. The explanation given by the authors was that students who are under stress are more likely to choose energy-dense foods rather than non-energy dense foods. Additionally, Lee and Loke (2005) found that relatively few university students had a sense of "health responsibility" with only 14% reporting exercise on a regular basis and less than half ate fruits (35%) or vegetables (48%) every day.

2.4.3 Conclusions of the review on nursing students

This section reviewed the literature on stress in nursing students. The stressors, coping strategies, individual differences and health behaviours have been discussed. Identified stressors have been broadly defined as being academic, clinical or personal. The research focusing on coping strategies has produced mixed results, and this is likely to be due to the population under investigation, the research methods employed, or the education programme being undertaken. The importance of personality variables such as neuroticism, self-efficacy and self-esteem has been demonstrated, with these variables predicting stress across a range of studies.

When looking more generally at the literature on nursing students, it is clear there has been an abundance of studies focusing on the types of stressors nursing students face. However, little research to date has considered how these variables might interact with each other to influence mental health. Indeed, the majority of research conducted in the field only considers direct effects of stressors, without considering how these stressors might interact with one another. For example, previous research has shown that clinical experiences (Jones & Johnston 1997; Sheu, Lin, & Hwang, 2002), interactions with staff (Alzayyat & Al-Gamal, 2014), and the death of patients (Timmins & Kaliszer, 2002; Burnard et al., 2008) are associated with stress in nursing students. However, is it the event itself that is stressful for the student, or is it a lack of preparation to deal with the event that's the main problem? In other words, do stressors in one area of training (e.g. academic) interact with other areas of training (e.g. clinical), and, if so, how do these variables interact? It is questions such as these that will be the focus of the studies on nursing students in this thesis (chapters 4 and 5).

2.5 Trainee Clinical Psychologists

2.5.1 Clinical Psychology Education

The journey towards becoming a clinical psychologist in the UK is extremely hard work. Individuals pursuing this career path must have at least a 2.1 psychology undergraduate degree or conversion course and some experience in terms of clinical (e.g. assistant psychologist) or research (e.g. research assistant) before being considered for a place on a three year Doctorate in Clinical Psychology (DClinPsy) training course (CHPCCP, 2015).

Trainees are expected to complete both academic and clinical work during their training programme. The academic component of the course typically includes teaching days, essays, reports, and a doctoral-level thesis, while the clinical component includes undergoing clinical placements in the NHS. All courses are accredited by the British Psychological Society (BPS), meaning there is substantial uniformity in the academic and clinical curricula.

The role of clinical psychologists in the UK often involves direct work with clients, and includes the assessment, diagnosis, and treatment of psychological distress, disability, dysfunctional and health-risk behaviour (Hall & Llewelyn, 2006). The main aim here is to improve the wellbeing of the client so they can live more independently. In addition to this, clinical psychologists are often involved in supervision, teaching, research, policy planning, and program evaluation (Cheshire & Pilgrim, 2004). The multiple possibilities related to this role means trainee clinical psychologists must develop a wide range of knowledge in the biological, social, cognitive and affective basis of behaviour, as well as expertise in statistics, research methods and healthcare management during their training.

2.5.2 Stress, coping, individual differences and mental health in trainee clinical psychologists

Hannigan, Edwards and Burnard (2004) conducted a systematic review of stress in clinical psychology based on the Carson and Kuipers (1998) stress model. The aims were to identify the stressors, moderators and outcomes in the occupation of clinical psychology. Identified stressors included demands, workload, poor quality management and professional self-doubt (Cushway & Tyler, 1994; Cushway, Tyler & Nolan, 1996). Moderators included a wide range of coping strategies such as talking to colleagues, a partner, or engaging in a support group (Cushway & Tyler, 1994; Cormack, Nichols & Walsh, 1991). Outcomes included high levels of burnout and psychological distress (Darongkamas, Burton, & Cushway, 1994). This review demonstrated the distinct lack of published literature focusing on stress in clinical psychologists, as only seven relevant studies were identified. Additionally, only one of these studies (Cormack, Nichols & Walsh, 1991) involved an intervention aimed at reducing stress. The researchers concluded that:

> *"Mental health professionals are required to attend to the needs of people experiencing a range of mental health difficulties. The evidence from this review is that many clinical psychologists practicing in the UK are, themselves, experiencing significant levels of psychological distress. Moreover, powerful organisational and professional factors may act in ways that inhibit the capacity of psychologists to seek and obtain support for stress at work"* (p.239).

There is also a noticeable lack of published studies focusing on stress in trainee clinical psychologists. In a review of the area, Packenham and Stafford-Brown (2012) found only one study that examined the sources and levels of stress in trainees and,

for this reason, mainly focused on findings from other mental health practitioners in an attempt to generalise these findings to the trainee population. The sole study that did focus on trainees was a questionnaire study by Cushway (1992), who found that 59% of UK trainees were reporting “caseness” levels of psychological distress (as defined by the General Health Questionnaire; GHQ, Goldberg, 1978). The factors associated with stress in this study were workload, lack of social support, client difficulties and distress, self-doubt, course structure and poor supervision.

In a later study, Cushway and her colleague (Cushway & Tyler, 1994) surveyed 101 qualified British clinical psychologists by means of postal questionnaires. The participants completed the GHQ, a stress questionnaire, and a coping questionnaire. On the whole, similar stress levels were reported by the qualified clinical psychologists as found in the earlier study focusing on trainees. However, only 29% of the qualified clinical psychologists reached caseness level on the GHQ. One interpretation of these results could be that both qualified and trainee clinical psychologists experienced elevated levels of stress, but those who were qualified had the required coping resources to deal with it. In other words, it was not the stress levels that differentiated the trainees from their qualified counterparts, but the psychological symptoms associated with stress (i.e. the psychological functioning of the participants).

Other stressors reported by trainee therapists include time constraints, long hours, and switching between numerous roles such as attending lectures, doing research, and being a therapist (Schwartz-Mette, 2009; Pakenham & Stafford-Brown, 2012). Trainees have a tendency to enter clinical training with unrealistically high expectations, and the realisation that “it’s just a course” can be a particularly stressful experience for them (Skovholt & Ronnestad, 2003). Furthermore, trainees tend to be

"obsessive overachievers" and the fact that they will not know all the answers to all their clients' problems will cause frustration, anger and distress (Pica, 1998).

2.5.2.1 Self-care

When focusing generally on the research on mental health professionals, the terms self-care and coping strategies are often used interchangeably. For this reason, Brucato and Neimeyer (2009) provide a clear distinction between the terms. While self-care can be considered a preventative measure that is taken before stress is experienced, coping strategies aim to reduce the impact of stress after it has occurred. In other words, self-care is an ongoing activity to improve the individual's wellbeing, whereas a coping strategy tends to be employed after the stressful event. Mental health professionals who do not care for their own psychological needs will eventually become impaired, and over time this can result in negative outcomes not only for the individual, but also the clients they seek to help (Wise, Hersh, & Gibson, 2012).

The importance of self-care for trainee mental health professionals is well documented, with recommendations to start the learning of self-care techniques early in the trainee's education (Malinowski, 2014). Indeed, participating in activities such as personal therapy (Linley & Joseph, 2007), seeking supervision (Fleming & Steen, 2012), practicing meditation and mindfulness (Christopher & Maris, 2010) and engaging in leisure activities (Stevanovic & Rupert, 2004) have shown positive improvements in wellbeing among mental health professionals.

2.5.2.2 Coping and individual differences

There have been very few studies focusing on coping strategies in trainee clinical psychologists. Kuyken et al. (2003) conducted a longitudinal study focusing on

trainee clinical psychologists' adaptation and professional functioning over time. At time point 1, a sample of 193 trainees responded to a questionnaire. At time point 2 (a year later), 167 of the same participants completed the same questionnaire. The researchers measured appraisals, coping, social support and professional functioning at both time points. The results suggested that trainees who appraised job demands as manageable and reported higher levels of engagement with the support services, also reported less problems in regards to psychological adaptation and less avoidance coping. Trainees who used less avoidance coping tended to adapt better over time. Further, these participants were shown to be more likely to approach their learning in an appropriate and resilient manner.

There has also been a dearth of studies focusing on individual difference variables in trainee clinical psychologists. A cross-sectional survey by Brooks, Holttum and Lavender (2002) focused on personality style and psychological adaptation in a sample of 364 UK trainees. It was found that 41% of the trainees had a significant problem in at least one of the following areas; anxiety, depression, low self-esteem or work adjustment. However, it was also found that overall personality adjustment for the sample was significantly better than normative data. Specifically, the trainees were more inclined to seek positive stimuli rather than avoid distress, they would try to change the environment rather than try to adapt to it, would draw on others rather than themselves for information and knowledge, and were outgoing rather than retiring. Therefore, the personality profile of the trainees in this study appeared to be appropriate for the people-oriented career being pursued (Brooks et al., 2002). However, this conclusion was based on the overall mean score for the sample, and when investigating the sub-sample of trainees who were found to have poor

personality adjustment scores (12% of the overall sample), it was found that this group appeared to have the reverse characteristics.

Despite a lack of published literature focusing on trainee clinical psychologists internationally, UK clinical psychology programmes do undertake annual reviews of trainees' experiences and this is evidenced by documents such as the "Alternative Handbook for Postgraduate Training Courses in Clinical Psychology" (BPS, 2015). The Alternative Handbook surveys trainees' experiences on each of the BPS accredited clinical training courses every year. This can be a helpful guide for prospective applicants to get a flavour of the courses available, and to help them decide where to apply. However, the usefulness of this data when it is applied to our understanding of stress in trainees is somewhat limited. For example, the questions in the survey do not allow the trainees to elaborate on the stressors they report, or explain how, if at all, they would manage these stressors. The data also fails to take into account the complex nature of stress, which includes a complex web of stressors, resources, coping strategies and individual differences.

2.5.2.3 Personal experiences

Since its introduction by Jung (1963), the 'wounded healer' has become a well-established phenomenon in the academic literature and popular culture and suggests that mental health professionals are often compelled to treat clients due to their own personal experiences. Indeed, it has been suggested that mental health professionals are likely to be more susceptible to mental health problems themselves due to a higher prevalence of problems in their personal and home lives. For example, Elliott and Guy (1993) found that qualified female clinical psychologists reported higher levels of physical and sexual abuse, psychiatric history, parental alcoholism, and greater

dysfunction in their families than other professionals. Similar findings have been found in studies focusing on psychiatrists (Rajagopal, Rehill, & Godfrey, 2004) and other groups of psychologists (Pope & Feldman-Summers, 1992).

Parentification is the process of role reversal, in which a child acts as a parent to his or her own parent (Gardner et al., 2006). In this situation, the child takes over the responsibilities of their parents, as the parents themselves are not fulfilling their duties. This can result in the child internalising this process, and being more likely to neglect its own needs in order to care for the needs of others later in their life (Nuttal, Valentino, & Borkowski, 2012). This can make the caring professions an appealing and rewarding choice of career for people who have had such experiences. However, ignoring one's own needs and focusing purely on others can have a detrimental impact on the mental health professional, and these patterns of behaviour are likely to lead to psychological illness and poor performance at work (Malinowski, 2014).

Many mental health professionals may not be aware of how one's past experiences, limitations and weaknesses may affect their wellbeing and performance. However, this knowledge is essential to performing one's duties at an optimum level (Hatcher et al., 2013). Although personal experiences might make the mental health practitioner more empathic towards their clients (Gilroy, Carroll, & Murra, 2002), it can at the same time place the therapeutic relationship at risk if the practitioner is not aware of the effects this can have on their own self (Malinowski, 2014). Trainees might be even more at risk of this occurring, particularly if they do not engage in self-care or have the necessary coping skills to deal with such issues (Nikcevic, Advani, & Spada, 2007).

2.5.2.4 Conclusion of the review on trainee clinical psychologists

The role of a clinical psychologist is to reduce the distress being presented in their clients, yet there is much evidence to suggest that they too may need support. Clinical psychologists must develop a high level of knowledge and skills during their three years in clinical training and this steep learning curve, along with managing busy lives, self-doubt, and other personal and professional issues is likely to result in a stressful experience for trainees. The research agenda for investigating stress in trainee clinical psychologists is therefore necessarily broad. Updated knowledge is required in a number of areas given the lack of published research internationally. Some questions that might be the focus of future research include:

1) What aspects of clinical psychology training or characteristics of the individual are the most important predictors of stress in trainees?
2) What coping strategies are employed by trainees and are they effective in reducing stress and mental health problems?
3) What impact might stress have on trainees' competence during training?
4) What impact might stress during training have on trainees' competence in their future professional practice?
5) How do trainees compare to other types of post-graduate psychologists, other types of healthcare students, or qualified clinical psychologists?
6) What impact do personal experiences have on trainees' mental health and performance while training?
7) Do clinical psychology educators agree on the sources of stress during clinical psychology training?
8) Is there a consensus among clinical psychology educators regarding how best to limit the impact of the stressors trainees face?

The research area is much less developed than in nursing, particularly in regards to individual difference variables such as personality and coping, with only two studies (Brooks et al., 2002; Kuyken et al., 2003) being identified in this review. For this reason, chapter 6 investigates individual differences and coping in trainees to try to shed more light on this issue. Chapter 7 focuses on stress and coping in trainee clinical psychologists using qualitative research methods.

2.5.2.5 Overall conclusion

Nursing students and trainee clinical psychologists are likely to be vulnerable to high levels of stress during their three years in professional training. Despite there being a number of differences in the two populations being investigated in this thesis, notably the undergraduate and postgraduate levels of their training, there are also a number of similarities between the groups. Both groups work in healthcare settings during their training, both will deal with patients, and both will have academic and clinical demands to deal with. Therefore, although there is a distinct lack of literature on trainee clinical psychologists, it is possible to draw some conclusions from other healthcare students (e.g. such as from the literature on nursing students), about what might be stressful for them and how educators might go about providing support. In other words, what we learn about one population might be able to tell us something about lessons that need to be learned in the other population, and vice versa. However, such generalisations should be made with some degree of caution, as while healthcare students will have some shared experiences this will not be consistent across the different occupational groups.

The next chapter outlines a multi-dimensional approach to measuring stress which will form the basis for the rest of the quantitative research in this thesis, with the Demands, Resources and Individual Effects (DRIVE) model (Mark & Smith, 2008) being used as the theoretical framework. Researchers have investigated stress in nursing students and trainee clinical psychologists in a variety of different ways, yet no research to date has adopted a multi-dimensional approach to investigate stress in these groups.

Chapter 3: An overview of a multi-dimensional approach to stress measurement

3.1 Objectives

The aim of this chapter is to provide an overview of a methodological approach that can be used to investigate occupational stress. Research conducted on a sample of trainee clinical psychologists, nursing students and PhD students will be used as an example of how this approach works in practice. A variety of factors including work characteristics, coping, appraisals, personality, health behaviours and personal experiences were explored.

3.2 Introduction

The importance of considering multiple factors in occupational stress research has been well documented (Bliese & Jex, 1999; Smith, McNamara & Wellens, 2004). However, much of the available research only takes into consideration the nature and effects of a small number of factors in isolation, rather than considering the effects of multiple factors on outcomes (Smith, McNamara & Wellens, 2004; Smith, 2015). A researcher's decision to limit the focus of their measures in this way is understandable; as time, costs and participant attrition can make alternative solutions appear impractical. However, such an approach is unlikely to represent the real-life work situation, in which individuals are exposed to multiple stressors, will tend to adopt their own unique coping strategies, and have other individual difference variables that might moderate the impact of stress (Smith, 2015). This chapter therefore presents a more holistic approach to assessing stress that is used at the Centre for Occupational and

Health Psychology at Cardiff University, with a multi-dimensional approach and shorter measures being preferred.

The theoretical framework for this multi-dimensional approach is based on work by Mark and Smith (2008), who described the Demands, Resources and Individual Effects (DRIVE) model. The DRIVE model was designed to have a flexible framework, which allows other relevant variables to be applied. The model proposes direct effects on outcomes by each of the variable groups, as well as a mediating effect of perceived stress on the relationship between work circumstances (i.e. demands and resources) and outcomes. Subjective perceptions and individual differences are considered central in the model, with the authors pointing out that the actual psychological process of appraisals and coping, as outlined in the transactional model of stress (Lazarus & Folkman, 1984), are unlikely to be as rational as this theory makes out (Mark & Smith, 2008). Instead, the DRIVE model proposes perceived stress to have a mediating role, and for individual characteristics, resources and personal demands to moderate the pathways either side of this effect. The full model is described in figure 3.1.

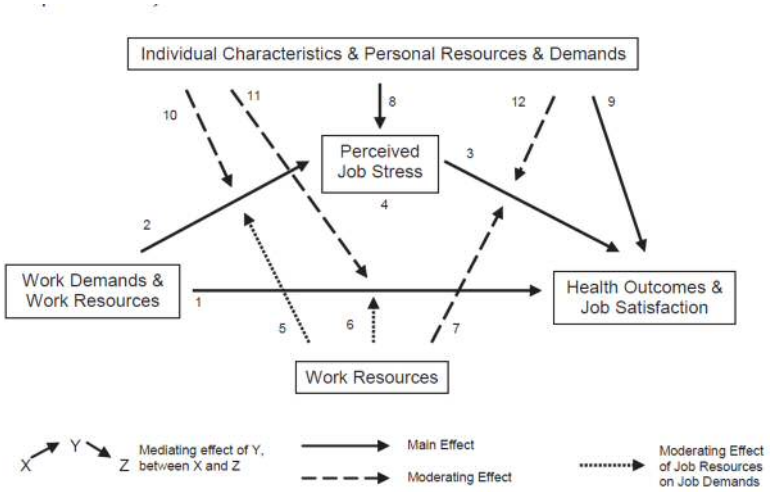

Figure 3.1 *The Demands-Resources-Individual Effects model (Mark & Smith, 2008).*

Mark and Smith proposed twelve key relationships in the model, and these are described below:

1) Work demands and work resources will significantly relate to outcomes.
2) Work demands and resources will significantly relate to perceived job stress.
3) Level of perceived job stress will significantly relate to outcomes.
4) Level of perceived job stress will significantly mediate the relationships between job demands/resources and outcomes.
5) Work resources will significantly moderate the effect of work demands in the prediction of perceived job stress.
6) Work resources will significantly moderate the effect of perceived job stress in the prediction of health outcomes.
7) Work resources will significantly moderate the effect of perceived job stress in the prediction of health outcomes.
8) Individual differences in the form of personal demands and resources will be significantly related to perceived job stress.
9) Individual differences will be significantly related to perceived job stress.
10) Individual differences will be significantly related to outcomes.
11) Individual differences will moderate the effect of job demands on outcomes.
12) Individual differences will moderate the effect of perceived stress on outcomes.

The model proposed above was tested by Mark (2008) in a sample of nurses and university employees, with a total 1,200 participants. All proposed relationships in figure 3.1 were tested using regression analyses. Predictions 1, 2, 3, 4, 8 and 11 found strong support, and predictions 6 and 8 found mixed support. There was no support for predictions 5, 7, 8, 10 and 12. To summarise these findings, job demands and work

resources were strong predictors of perceived job stress and health outcomes. Individual differences such as coping were also found to be good predictors of perceived job stress and health outcomes, as well as moderating the effect of job demands on outcomes. Perceived job stress was found to be significantly related to outcomes, and support was found for the mediating role of perceived job stress on the relationships between job demands/resources and outcomes. Little to no support was found for the proposed moderation effects. From these findings, Mark and Smith concluded:

> *"The support of many aspects of the model provides a good basis for the development of future research. Different organisational and personal variables could easily be inserted into the framework and tested, and such research could provide more information on the relative importance of different variables in the prediction of outcomes, and more information about how they may interact. Such research may provide support for the structure of the proposed model, or could be used to revise the model"* (p. 26).

A number of further studies have been carried out and found additional support for the direct effects and mediating role of perceived stress (Capasso, 2015; Mark & Smith, 2011; Mark & Smith, 2012). However, consistent with the earlier studies by Mark (2008), only little to moderate support has so far been found for the moderation hypotheses (Capasso, 2015; Capasso, Zurlo, & Smith, 2016; Mark, 2012). However, it should be noted that this is a common finding in the occupational stress literature, with research generally finding more supporting evidence for direct effects than for interactive effects (McClelland & Judd, 1993). For example, Van Der Doef and Maes, (1999) conducted a review of the Job Demand-Control-Support model (Johnson & Hall, 1988; Karasek, 1979) and found more supporting evidence for the proposed

direct effects of demands, control and support on outcomes than for the moderating effects of control and support. As there is mixed support for moderation effects, it has been suggested that an additive effects approach might be more useful (Smith, 2015; Smith et al., 2004). This approach will be described in detail later on in this chapter.

3.2.1 Measuring multiple constructs

Although adopting a multi-dimensional framework such as the DRIVE model is advocated here, this can cause issues in terms of practicalities. Indeed, measuring multiple variables in any given study can be a problematic, as researchers are likely to find themselves with lengthy and laborious questionnaires. This often leads researchers to focus their studies on fewer variables, because time, costs and participant attrition make measuring multiple constructs more difficult. For example, when taking into account factors such as demands, control, support (Karasek, 1979; Johnson & Hall, 1988), effort and reward (Siegrest, 1996), coping style (e.g. Carver, 1997) and other individual difference variables such as personality (e.g. Rammstedt & John, 2007) the size of the questionnaire increases with added multi-item predictors and criterion variables. This problem mainly stems from the emphasis in academic research being on using multi-item scales for reliability purposes. Specifically, the internal consistency of scales is of particular importance here, with questionnaires often requiring 10 or more items, and more items generally resulting in higher reliability (Cronbach, 1990).

As validity is limited by reliability, shorter questionnaires such as those using single-items are seen to provide inaccurate representations of wellbeing outcomes and, therefore, are not considered good measures to use (Nunnaly, 1978; Viswanathan et al., 1996). Indeed, the most common criticism of single-item questions

is regarding internal consistency, and the inability of single-items to meet these criteria. However, multiple approaches do in fact exist to estimate the internal consistency of single-items. One such method is the Wanous method (Wanous, Reichers, & Hudy, 1997), which uses the correction for attenuation formula. Using this method, Wanous et al. (1997) estimated that the minimum reliability of a single-item job satisfaction question was .70, suggesting single items can be reliable as long as they are appropriately designed.

Single items have also been widely used in epidemiology, particularly in relation to self-rated health status (Idler & Benyamini, 1997; Bowling, 2005). Fisher, Matthews and Gibbons (2015) investigated a range of constructs using single items and found support for a number of measures including supervisor support, work role clarity, work/family conflict, life satisfaction, job satisfaction, depression and burnout. Furthermore, other single items finding support include bullying (Sawyer, Bradshaw, & O'Brennan, 2008), self-esteem (Robins, Hendin, & Trzesniewski, 2001) and social support (Blake & McKay, 1986).

3.2.2 Advantages of single items

The practical advantages of using single items are clear, particularly when the employees being audited are working in services that are under significant time pressures, such as when focusing on individuals working or training in healthcare settings. In these settings, it is essential that any stress auditing is done quickly to avoid burdening the individual or the service they provide. The problems associated with multi-item scales, in particular in relation to response rates and patterns, are also reduced by the use of single items (Williams, 2015).

The advantages of single-items can also reduce the risk to validity in other ways. With multi-item scales, for example, the same question can often be asked multiple times with only minor changes in wording, therefore inflating alpha scores without necessarily adding information (Drolet & Morrison, 2001). Indeed, a number of measures have been criticised for only including items to inflate reliability scores (Thompson, 2007). In addition, Woods & Hampson (2005) noted that although random error variance is expected to be cancelled out by the use of multi-item measures, other non-random error variance, such as the error related to social desirability, may be increased.

3.2.3 Wellbeing Process Questionnaire

Williams and Smith (2014) developed the Wellbeing Process Questionnaire (WPQ), which uses single-item questions. The key aspect of these single-items is that the questions are generated based on previously validated multi-item scales (Williams & Smith, 2014). The questions are designed in a way that allows examples of what each question is referring to in parenthesis and instructions to participants are given to use these examples for guidance. The benefits of this approach include the participants being able to provide a global score for a particular scale rather than having multiple items that basically reword the same general construct. For example, if a researcher used the Job Content Questionnaire (Karasek et al., 1998) then the single-item equivalent for the scales in this questionnaire would be created by incorporating the most highly loaded items of a particular scale as examples in the parenthesis. To serve as an example, the single-item question for the construct ‘job demands’ would read:

Demands: I feel that my work is too demanding (*For example: I have to work very fast, I have to work very hard, I have conflicting demands*).

The participants would rate their agreement with the statement on a scale of 1 to 10, as this allows a greater potential range of responses for the participant. Studies using this single-item design have shown significant correlations between single items and full scales, for example, average work characteristics 0.7, average personality correlation 0.66 (Williams & Smith, 2014; Smith, 2015; Williams, 2015; Williams & Smith, 2016). Predictive validity has also been considered by testing constructs with both the original multi-item scale and their single-item equivalent (Williams & Smith, 2014). Results revealed that single-items predicted outcomes as well as, and in some cases better than, multi-item scales. The implications of this are that groups at risk of poorer outcomes can be identified using single-items. A further application of the WPQ is that it could be used in combination with multi-item scales, and applied purely to control for other potentially confounding variables that otherwise would not be controlled. This can help provide information on the importance of particular variables, and whether or not they contribute to the model when multiple predictors are used.

Rather than having a set number of items for this questionnaire, Williams and Smith developed a bank of questions for a variety of constructs. New single items can be added to the questionnaire upon validation of the single-item for a particular construct. This ensures investigators with a variety of different research questions can use this questionnaire, as long as the constructs of interest have a single-item equivalent.

In their work, Williams and Smith (2014) tested a variety of single items for reliability and validity but they did not investigate the latent constructs on which these

items load. This was to allow future work to develop their own scales for individual populations using these items. In other words, this questionnaire can be defined as a tool that includes a variety of single items (which work at the level of the broader latent construct) as opposed to the more standard approach in which questionnaires include "lower-level" items that load on to the broader latent construct. However, these single-items can be reduced into more manageable units (e.g. using Principle Components Analysis), but it should be noted that the WPQ would be considered separate to the PCA, as different projects will be interested in different single-item level constructs. In other words, the questionnaire and the latent constructs that are developed from the questionnaire are therefore considered distinct entities and will therefore be different for each individual project.

However, the use of different single items in each project will lead to components which have different indicators. This can cause issues in terms of replicability and there will inevitably be a lack of structured scales using this approach. However, the flexibility of tailored questionnaires for each individual project or population under investigation at early stages of WPQ development might lead to the development of a structured WPQ for each individual population in the future. For example, a Healthcare Professional WPQ could be developed once the most important indicators have been identified for this population, and structured scales can then be validated for this group.

Aim of chapter:

The aim of this chapter is to provide an overview of the multi-dimensional approach and how this approach might work in practice. The DRIVE model predictions

will be tested using three groups of students in professional training; trainee clinical psychologists, nursing students and PhD students.

3.3 Method

3.3.1 Participants

A total of 515 participants completed an online questionnaire. The questionnaire was cross-sectional in nature and participant recruitment involved convenience sampling whereby an email advertisement was forwarded to potential participants. Respondents included 168 trainee clinical psychologists recruited from five UK clinical psychology courses, 94 nursing students from three UK nursing courses, and 253 PhD students from three UK institutions. All participants were enrolled as full-time students.

The majority of the trainee clinical psychologists were female (152, 90.5%) with a mean age of 29.41 years (SD = 3.973, minimum 22 years, maximum 45 years). Most were married or in a relationship (135, 80.8%) and of White ethnicity (156, 93.4%). In terms of year of training, there were 51 participants in year one (30.5%), 52 in year two (31.1%) and 64 in the final year (38.3%) of their training programme. In the nursing students group, most were female (81, 86.2%) with a mean age of 25.83 (SD = 7.567, minimum 18, maximum 59), were married or in a relationship (61, 64.9%), and of White ethnicity (89, 94.7%). Across the years, there were 38 first year (40.4%), 24 second year (25.5%) and 32 final year (34%) students. Most PhD respondents were female (194, 76.7%), mean age of 28.02 years (SD = 6.673, minimum 21, maximum 63), married or in a relationship (192, 75.9%), and White ethnicity (224, 88.5%). There were 64 in year one (25.3%), 71 in year two (28.1%), and 118 in their final year (46.6%) of training.

3.3.2 Procedure

Once permission from the course directors was obtained, participants were forwarded an advertisement from the researcher inviting them to take part in the study. Informed consent was obtained online from the participants.

3.3.3 Measures

Work characteristics, appraisals, coping and mental health outcomes were measured using single-item questions from the Wellbeing Process Questionnaire (Williams & Smith, 2012). Personality was measured using the Big 5 Inventory-10 (Rammstedt & John, 2007), which measures the big five personality traits in a short-form questionnaire. Perfectionistic personality traits were also measured using the Almost Perfect Scale Revised (Slaney et al., 1996), a questionnaire which includes three variables: standards, order and discrepancy. Core-self evaluations were measured using the Core Self Evaluations Scale (Judge et al., 2003). The CSES is a 12-item questionnaire that has been developed to operationalise the construct of core self-evaluations, a construct incorporating self-esteem, generalised self-efficacy, locus of control and neuroticism. Imposter feelings (i.e. worries about competency) were also measured using the Imposter Phenomenon scale (Clance, 1985). The childhood experiences measures included were the Child Abuse and Trauma Scale (CATS; Sanders & Beckers-Lausen, 1995) and the Parentification Inventory (PI; Hooper et al., 2011). The CATS yields individual scores on three separate subscales: Negative home environment, child physical abuse/punishment and child sexual abuse. The PI also has three subscales: Parent-focused parentification, sibling-focused parentification and perceived benefits of parentification.

Two additional questions were created; one asked participants whether they themselves had ever suffered from a mental health problem and another asked

whether their parents or principal caretaker had ever suffered from a mental health problem. These questions included a list of all psychological disorders outlined in the Diagnostic and Statistical Manual of Mental Health Disorders 5th edition and participants were given a score of one for each experience they selected. Participants were given the opportunity to add extra or non-specified disorders to the list if necessary, or to select “no mental health disorders”.

Dietary variables included single item questions that asked how often the participants consumed certain products. This included breakfast, fruit and vegetables, biscuits, crisps and chocolate. A single item also measured the amount of exercise participants engaged in on a weekly basis.

As alcohol consumption is likely to differ in the amount consumed during weekdays and weekends, this was measured with 4 items. One question asked the participants the number of days they drink alcohol on weekdays (Monday to Thursday) and another asked them the number of days they drink alcohol on the weekends (Friday to Sunday). The other two questions asked how many units of alcohol they normally consume on weekdays and weekends respectively.

Therefore, multiple constructs were considered in this study, which were potentially relevant to the populations under investigation based on previous research (e.g. see chapter 2). For the full list of measures see table 3.1. The selected variables, and how these map on to the DRIVE model, is described in figure 3.2

Factor	Individual variables	Description of measures
Work characteristics	Demands, control, support, effort, reward, hassles, uplifts, supervisor relationship.	Single-item measures of work characteristics from the WPQ (Williams & Smith, 2012).
Appraisals	Perceived job stress, personal stress, job satisfaction.	Single-item measures of appraisals from the WPQ.
Coping	Problem-focused, seeks social support, blame-self, wishful thinking, avoidance.	Single-item measures of coping from the WPQ.
Health behaviours	Alcohol, sleep, exercise, breakfast, chocolate, crisps, biscuits, fruit & vegetables.	Single items of health behaviours.
Individual differences	Extraversion, agreeableness, conscientiousness, neuroticism, perfectionism variables (standards, order, discrepancy), imposter feelings, core self-evaluations.	Big 5 Inventory-10 (BFI-10; Rammstedt & John, 2007), Almost-Perfect Revised Scale (APS-R; Slaney et al. 1996), Imposter Phenomenon scale (Clance,1985), and Core Self Evaluations Scale (Judge et al., 2003).
Childhood experiences	Negative home environment, sexual abuse, physical abuse, own mental health disorder, families' mental health disorder, parent-focused and sibling-focused parentification, perceived benefits of parentification.	Child Abuse and Trauma Scale (CATS; Sanders & Beckers-Lausen, 1995), Experiences of Mental Health (EMH) scale, and Parentification Inventory (PI; Hooper et al., 2011).
Outcomes	Depression, anxiety, burnout, happiness.	Outcomes were measured using single-item measures from the WPQ.
Demographics	Age, gender, ethnicity, year of training, education level	Single item questions

Table 3.1. *The variables and associated factors measured in the questionnaire.*

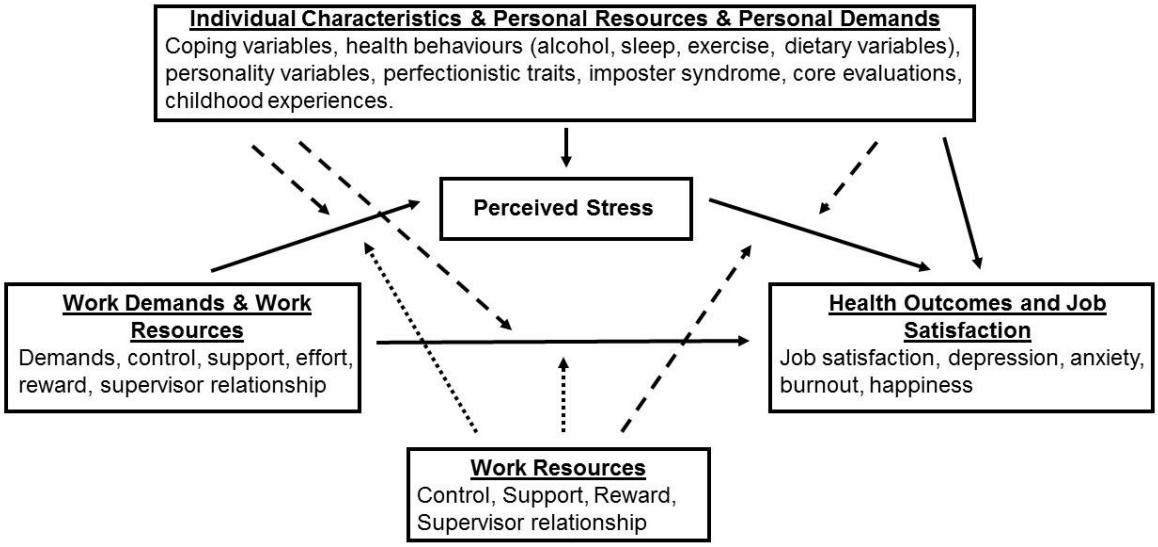

Figure 3.2 *The variables and associated factors mapped onto the DRIVE model*

3.4 Results

First, principal components analyses (PCA) were conducted. Direct oblimin was used as an oblique rotation to extract eigenvalues equalling or exceeding the threshold of 1. The components are described in table 3.2. To reduce the variables into manageable units and decrease the possibility of chance effects, component scores were then created using the Anderson-Rubin method and these scores were used in later analysis. In total, there were 15 components, including three outcomes. Independent variables included job demands, resources, emotion-based coping, seeks social support, negative personality traits, conscientious attitude, relationship-focused personality, negative childhood experiences, childhood responsibilities, alcohol consumption, healthy lifestyle and bad diet. Outcomes included perceived stress, job satisfaction and mental health problems.

Work characteristics	Factor Loading	Cumulative % variance
Component 1: Resources		
Support	0.836	65.4%
Reward	0.802	
Supervisor relationship	0.718	
Control	0.682	
Component 2: Job demands		
Effort	0.900	
Demands	0.874	
Appraisals	**Factor Loading**	**Cumulative % variance**
Component 3: Perceived stress		
Outside of Work Stress	0.885	63.5%
Job Stress	0.719	
Hassles	0.678	
Component 4: Job satisfaction		
Job Satisfaction	0.857	
Uplifts	0.746	
Coping	**Factor Loading**	**Cumulative % variance**
Component 5: Emotion-based coping		
Avoidance coping	0.713	59.7%
Wishful thinking	0.699	
Problem-focused coping*	0.679	
Blame-self coping	0.677	
Component 6: Seeks Social Support		
Seek social support coping	0.918	
Individual differences	**Factor Loading**	**Cumulative % variance**
Component 7: Negative personality traits		
Imposter feelings	0.918	67.8%
Discrepancy (negative perfectionism scale)	0.899	
Neuroticism	0.677	
Component 8: Conscientious attitude		
Conscientiousness	0.819	
Likes high order (perfectionism scale)	0.768	
Likes high standards (perfectionism scale)	0.761	
Component 9: Relationship focused personality		
Agreeableness	0.869	
Extraversion	0.646	
Childhood experiences	**Factor Loading**	**Cumulative % variance**
Component 10: Negative childhood experiences		
Perceived benefits of parentification*	0.760	55.9%
Negative home environment	0.730	
Own psychiatric history	0.663	
Sexual abuse	0.631	
Punishment	0.603	
Families psychiatric history	0.442	
Component 11: Childhood responsibilities		
Sibling-focused parentification	0.882	
Parent-focused parentification	0.872	
Health Behaviours	**Factor Loading**	**Cumulative % variance**
Component 12: Alcohol consumption		
Units of alcohol consumed (weekdays)	0.833	51.2%
Number of days alcohol is consumed (weekdays)	0.809	
Units of alcohol consumed (weekends)	0.787	
Number of days alcohol is consumed (weekends)	0.767	
Component 13: Healthy lifestyle		
Fruit and vegetables consumption	0.714	
Breakfast consumption	0.713	
Amount of exercise (weekly)	0.642	
Component 14: Bad diet		
Biscuits consumption	0.764	
Chocolate consumption	0.749	
Crisps consumption	0.608	
Health outcomes		
Component 15: Mental health problems		
Depression	0.877	62.1%
Happiness*	0.822	
Anxiety	0.775	
Burnout	0.663	

Table 3.2. *Results of the principal components analysis. * = Recoded variable*

3.4.2 Regressions

A series of regression analyses were then carried out to investigate the associations of the multiple independent variables to mental health problems, perceived stress and job satisfaction. The independent variables were selected on the basis of manual backwards selection, taking into account significance level and standardised beta weights. In all regressions, and before backwards selection, participants' age, gender, year of training and ethnicity were included as independent variables. However, they did not emerge as significant predictors in many of the tests and those that did were included in the analyses. Therefore, these variables have not confounded any of the significant relationships presented here. Intercorrelations of the independent variables showed no relationships over .8, therefore suggesting no issues with multicollinearity. All regressions were significant at $P < .001$.

The regressions presented in table 3.3 take into account all participants. Demands and core self-evaluations were the most highly associated predictors of mental health problems by beta weight. For perceived stress, job demands and negative childhood experiences were the most highly associated, and for job satisfaction, resources and core self-evaluations. The variables presented in the table account for 59.5% of the variance in mental health problems, 38.5% of the variance in perceived stress and 44.3% of the variance in job satisfaction.

Outcome: Mental health problems	**B**	**SE B**	**β**	**T**	**P**
Resources	-.059	.033	-.061	-1.822	.069
Job demands	.267	.030	.270	8.816	.000
Emotion-focused coping	.101	.039	.102	2.587	.010
Alcohol consumption	.099	.029	.100	3.360	.001
Healthy lifestyle	-.082	.029	-.083	-2.793	.005
Negative personality traits	.120	.047	.121	2.550	.011
Conscientious attitude	.060	.032	.060	1.866	.063
Relationship focused personality	-.098	.031	-.099	-3.197	.001
Negative childhood experiences	.121	.029	.129	4.093	.000
Core self-evaluations	-.560	.084	-.338	-6.685	.000
Model: R = .771, R^2 = .595				F:72.174	.000
Outcome: Perceived job stress	**B**	**SE B**	**β**	**T**	**P**
Resources	-.072	.040	-.073	-1.792	.074
Job demands	.396	.037	.398	10.663	.000
Healthy lifestyle	-.065	.035	-.065	-1.828	.068
Negative personality traits	.116	.053	.116	2.172	.030
Negative childhood experiences	.123	.037	.131	3.342	.001
Childhood responsibilities	-.070	.037	-.070	-1.911	.057
Core self-evaluations	-.232	.096	-.128	-2.401	017
Model: R = .620, R^2 = .385				F:44.100	.000
Outcome: Job satisfaction	**B**	**SE B**	**β**	**T**	**P**
Resources	.431	.038	.442	11.460	.000
Job demands	-.136	.034	-.138	-3.962	.000
Alcohol consumption	-.082	.033	-.083	-2.460	.014
Relationship focused personality	.132	.035	.133	3.760	.000
Childhood responsibilities	-.092	.034	-.093	-2.707	.007
Core self-evaluations	.331	.065	.200	5.104	.000
Model: R = .666, R^2 = .443				F:65.704	.000

Table 3.3. *Regressions for the whole sample for the outcomes mental health problems, perceived job stress and job satisfaction.*

The regressions presented in table 3.4 include the trainee clinical psychology group only. Job demands and core self-evaluations were the strongest predictors of mental health problems and perceived stress by beta weight. For job satisfaction, the strongest predictors were resources and relationship focused personality. The regressions account for 55.3% of the variance in mental health problems, 35.8% of the variance in perceived stress and 39.2% of the variance in job satisfaction.

Outcome: Mental health problems	**B**	**SE B**	**β**	**t**	**P**
Job demands	.182	.046	.215	3.921	.000
Healthy lifestyle	-.087	.047	-.101	1.849	.066
Negative personality traits	.180	.063	.221	2.878	.005
Relationship focused personality	-.132	.050	-.156	-2.623	.010
Negative childhood experiences	.097	.051	.115	1.994	.049
Core self-evaluations	-.503	.125	-.323	-4.014	.000
Model: R = .744, R^2 = .553				F:32.590	.000
Outcome: Perceived stress	**B**	**SE B**	**β**	**t**	**P**
Job demands	.316	.058	.345	5.427	.000
Core self-evaluations	-.724	.106	-.434	-6.816	.000
Model: R = .598, R^2 = .358				F:45.478	.000
Outcome: Job satisfaction	**B**	**SE B**	**β**	**t**	**P**
Resources	.441	.078	.396	5.633	.000
Job demands	-.145	.061	-.156	-2.401	.017
Relationship focused personality	.178	.062	.193	2.862	.005
Core self-evaluations	.240	.122	.141	1.970	.051
Model: R = .626, R^2 = .392				F:65.704	.000

Table 3.4. *Regressions for the trainee clinical psychologist group for the outcomes mental health problems, perceived job stress and job satisfaction.*

The regressions presented in table 3.5 include nursing students only. Job demands and core self-evaluations were the strongest predictors for mental health problems by beta weight. For perceived stress, the strongest predictors were job demands and negative childhood experiences and for job satisfaction, resources and negative childhood experiences. The regressions accounted for 70.6% of the variance in mental health problems, 49.1% of the variance in perceived stress and 41.9% of the variance in job satisfaction.

Outcome: Mental health problems	**B**	**SE B**	**β**	**t**	**P**
Job demands	.405	.072	.349	5.599	.000
Resources	-.190	.078	-.164	-2.423	.018
Emotion-focused coping	.247	.095	.199	2.600	.011
Alcohol consumption	.159	.072	.132	2.202	.030
Negative childhood experiences	.134	.051	.173	2.609	.011
Core self-evaluations	-.613	.173	-.318	-3.538	.001
Model: R = .840, R^2 = .706				F:33.156	.000
Outcome: Perceived stress	**B**	**SE B**	**β**	**t**	**P**
Job demands	.510	.085	.477	6.032	.000
Resources	-.198	.086	-.186	-2.313	.023
Alcohol consumption	.215	.086	.194	2.499	.014
Negative childhood experiences	.211	.057	2.96	3.712	.000
Model: R = .700, R^2 = .491				F:20.458	.000
Outcome: Job satisfaction	**B**	**SE B**	**β**	**t**	**P**
Resources	.409	.084	.419	4.822	.000
Job demands	-.198	.083	-.202	-2.393	.019
Alcohol consumption	-.162	.084	-.160	-1.929	.057
Negative childhood experiences	-.175	.056	-.269	-3.152	.002
Model: R = .647, R^2 = .419				F:15.322	.000

Table 3.5. *Regressions for the nursing student group with the outcomes mental health problems, perceived job stress and job satisfaction.*

Table 3.6 includes PhD students only. Core self-evaluations and emotion-focused coping had the strongest association with mental health problems. Job demands and core self-evaluations were the strongest predictors for perceived stress, and for job satisfaction, resources and core self-evaluations. The model accounts for 62.9% of the variance in mental health, 37.6% of the variance in perceived stress and 49.1% of the variance in job satisfaction.

Outcome: Mental health problems	**B**	**SE B**	**β**	**t**	**P**
Job demands	.182	.045	.177	4.033	.000
Resources	-.086	.042	-.096	-2.075	.039
Emotion-focused coping	.207	.051	.204	4.089	.000
Healthy lifestyle	-.163	.042	-.158	-3.868	.000
Bad diet	-.080	.042	-.077	-1.880	.061
Conscientious attitude	.095	.040	.103	2.387	.018
Relationship focused personality	-.078	.040	-.081	-1.924	.056
Core self-evaluations	-.822	.086	-.506	-9.571	.000
Model: R = .793, R^2 = .629				F:50.400	.000
Outcome: Perceived stress	**B**	**SE B**	**β**	**t**	**P**
Job demands	.354	.055	.345	6.392	.000
Healthy lifestyle	-.140	.053	-.136	-2.625	.009
Conscientious attitude	.124	.050	.134	2.487	.014
Childhood responsibilities	-.144	.056	-.134	-2.585	.010
Core self-evaluations	-.562	.091	-.344	-6.205	.000
Model: R = .613, R^2 = .376				F:28.988	.000
Outcome: Job satisfaction	**B**	**SE B**	**β**	**t**	**P**
Resources	.482	.049	.501	9.904	.000
Childhood responsibilities	-.144	.052	-.126	-2.746	.006
Core self-evaluations	.546	.088	.318	6.202	.000
Model: R = .701, R^2 = .491				F:79.369	.000

Table 3.6. *Regressions for the PhD student group for the outcomes mental health problems, perceived job stress and job satisfaction.*

3.4.3 Mediation analysis

The Z Sobel test, using Hayes' (2013) process tool for SPSS was used to investigate whether perceived stress mediates the relationship between demands and outcomes. With the outcome as mental health problems, the total effect of X on Y was .4320 (CI: .3539-.5102, P <.001) with a direct effect of X on Y of .1408 (CI: .0673-.2142, P<.001). The indirect effect was .2913 and the confidence interval was .2352 to .3506. As this confidence interval does not contain zero, the indirect effect can be considered significant (Hayes, 2013). With the outcome as job satisfaction, the total effect of X on Y was -.2912 (CI: -.3748, -.2077, P <.001) with a direct effect of X on Y of .1400 (CI: -.2323, -.0478, P = .003). The indirect effect was -.1512 and a confidence interval of -.2060 to -.1012. As this confidence interval does not contain zero, this effect is also considered significant.

We also tested whether perceived stress mediates the relationship between resources and outcomes. Using the same procedure, and with the outcome mental

health problems, the analysis revealed a total effect of X on Y at -.3860 (CI: -.4652, -.3068, p < .001) with a direct effect of X on Y at -.2081 (CI: -.2730, -.1433, P<.001). The indirect effect was -.1779 and the confidence interval (-.2328, -.1270) did not contain zero, and is therefore significant. For the outcome as job satisfaction, the analysis revealed a total effect of X on Y .5873 (.5176-.6570, p < .001) and a direct effect of X on Y .5225 (.4519-.5932, p < .001). The indirect effect of X on Y was .0648 (CI: .0375-.0980), and significant. Taken together, these findings provide evidence that perceived stress mediates the relationship between demands/resources and outcomes. Figure 3.3 summarises the overall structure of the analysis.

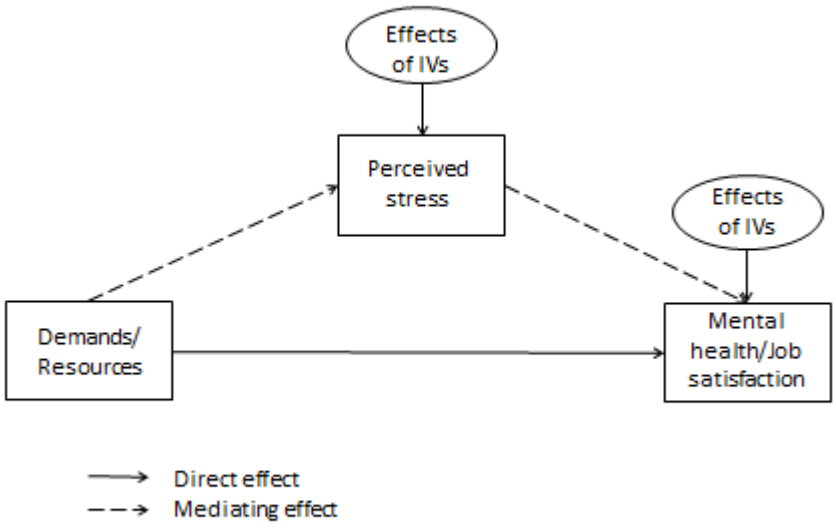

Figure 3.3. *Model shows direct effects of IVs on perceived stress, mental health and job satisfaction as well as the interactive effect of perceived stress on demands and resources.*

3.4.4 Moderation effects

The moderation effects described in the DRIVE model were then considered. Individual difference variables were considered as moderators, and it was found that core self-evaluations moderated the relationship between demands and perceived stress (table 3.7).

Outcome: Perceived stress	**Coeff**	**SE**	**t**	**P**
Job demands	.409	.038	10.7784	.000
Core-self evaluations	-.351	.039	-8.927	.000
Job demands * core-self evaluations	.095	.039	2.416	.016
Model: R = .607, R^2 = .368			F:86.789	.000
Conditional effect of X on Y at values of the moderator:	**Effect**	**SE**	**t**	**P**
Low core self-evaluations	.503	.053	9.556	.000
Mean core self-evaluations	.409	.038	10.778	.000
High core self-evaluations	.315	.056	5.640	.000

Table 3.7. *Moderation effect of core self-evaluations on the relationship between demands and perceived stress.*

Another individual difference variable that was found to be a moderator was perfectionism. Specifically, perfectionism moderated the relationship between perceived stress and mental health problems (table 3.8).

Outcome: Mental health problems	**Coeff**	**SE**	**t**	**P**
Perceived stress	.670	.031	21.316	.000
Perfectionism	-.059	.036	-1.676	.094
Perceived stress * perfectionism	.067	.032	2.076	.038
Model: R = .672, R^2 = .452			F:155.139	.000
Conditional effect of X on Y at values of the moderator:	**Effect**	**SE**	**t**	**P**
Low perfectionism	.603	.045	13.280	.000
Mean perfectionism	.670	.031	21.316	.000
High perfectionism	.737	.045	16.437	.000

Table 3.8. *Moderation effect of perfectionism on the relationship between perceived stress and mental health outcomes.*

It was also found that emotion-focused coping moderated the relationship between resources and perceived stress (table 3.9).

Outcome: Perceived stress	Coeff	SE	t	P
Resources	-.244	.044	-5.512	.000
Emotion-focused coping	.237	.047	5.050	.000
Resources* emotion-focused coping	.0768	.040	1.974	.049
Model: R = .384, R^2 = .147			F:28.265	.000
Conditional effect of X on Y at values of the moderator:	**Effect**	**SE**	**t**	**P**
Low emotion-focused coping	-.323	.056	-5.426	.000
Mean emotion-focused coping	-.244	.044	-5.512	.000
High emotion-focused coping	-.164	.060	-2.732	.007

Table 3.9. *Moderation effect of emotion-focused coping on the relationship between resources and perceived stress.*

In addition to this, an almost significant (borderline p value = .06) moderation effect of emotion-focused coping was found for the relationship between demands and perceived stress (table 3.10).

Outcome: Perceived stress	Coeff	SE	t	P
Job demands	.453	.041	11.085	.000
Emotion-focused coping	.214	.043	5.036	.000
Job demands * emotion-focused coping	-.077	.041	-1.881	.060
Model: R = .542, R^2 = .294			F:61.405	.000
Conditional effect of X on Y at values of the moderator:	**Effect**	**SE**	**t**	**P**
Low emotion-focused coping	.529	.055	9.676	.000
Mean emotion-focused coping	.453	.041	11.085	.000
High emotion-focused coping	.376	.060	6.226	.000

Table 3.10. *Moderation effect of emotion-focused coping on the relationship between demands and perceived stress.*

However, as the remaining predictions were not supported, these findings provide mixed support for the moderation effects proposed in the DRIVE model.

3.4.5 Additive effects approach

The basic additive effects approach involves summing the number of negative job characteristics a person is exposed to. This “Global Negative Score” is named the Negative Occupational Factor (NOF) score. The NOF score can be computed by conducting a median split on all variables so that “bad” factors are coded as 1 and “good” factors are recoded as 0. The decision on whether the factor is good or bad can be made easily by looking at the relationships with outcomes and based on

theoretical understanding. The dichotomous scores from the IVs are then summed together to compute the NOF score. The NOF can then be split into tertiles, and logistic regression used to assess the association between the NOF score and outcomes. Tables 3.11-3.14 show the results of these analyses for the whole sample and each individual group.

Outcome: Mental health problems	**OR**	**95% CI**	**p**
Lowest tertile	1.000		
Middle tertile	5.332	3.052-9.316	<.001
Highest tertile	20.391	11.361-36.601	<.001
Outcome: Perceived job stress			
Lowest tertile	1.000		
Middle tertile	2.431	1.534-3.854	<.001
Highest tertile	4.998	3.224-7.748	<.001
Outcome: Job Satisfaction recoded			
Lowest tertile	1.000		
Middle tertile	2.881	1.812-4.580	<.001
Highest tertile	5.022	3.238-7.791	<.001

Table 3.11. *Logistic regressions for the relationship between NOF and outcomes for the whole group.*

Outcome: Mental health problems	OR	95% CI	p
Lowest tertile	1.000		
Middle tertile	3.525	1.551-8.011	.003
Highest tertile	11.750	5.024-27.482	<.001
Outcome: Perceived job stress			
Lowest tertile	1.000		
Middle tertile	1.754	.806-3.818	.157
Highest tertile	6.667	2.871-15.482	<.001
Outcome: Job Satisfaction recoded			
Lowest tertile	1.000		
Middle tertile	3.840	1.675-8.803	.001
Highest tertile	5.148	2.362-11.220	<.001

Table 3.12. *Logistic regressions for the relationship between NOF and outcomes for the trainee clinical psychologists.*

Outcome: Mental health problems	OR	95% CI	p
Lowest tertile	1.000		
Middle tertile	9.218	4.121-20.622	<.001
Highest tertile	34.412	14.812-79.947	<.001
Outcome: Perceived job stress			
Lowest tertile	1.000		
Middle tertile	3.345	1.687-6.633	.001
Highest tertile	5.300	2.745-10.233	<.001
Outcome: Job Satisfaction recoded			
Lowest tertile	1.000		
Middle tertile	2.619	1.381-4.968	.003
Highest tertile	5.104	2.699-9.653	<.001

Table 3.13. *Logistic regressions for the relationship between NOF and outcomes for the PhD students.*

Outcome: Mental health problems	OR	95% CI	p
Lowest tertile	1.000		
Middle tertile	4.667	1.177-18.506	.028
Highest tertile	24.889	6.904-89.727	<.001
Outcome: Perceived job stress			
Lowest tertile	1.000		
Middle tertile	2.556	.765-8.210	.115
Highest tertile	4.929	1.804-13.468	.002
Outcome: Job Satisfaction recoded			
Lowest tertile	1.000		
Middle tertile	2.000	.602-6.642	.258
Highest tertile	5.200	1.872-14.447	.002

Table 3.14. *Logistic regressions for the relationship between NOF and outcomes for the nursing students.*

The findings in tables 3.11-3.14 demonstrate dose-response relationships between increases in the NOF score and poorer outcomes. Specifically, the results show that the likelihood of reporting more mental health problems, higher perceived job stress and lower job satisfaction increases at each level of exposure to the NOF score, providing clear support for the additive effects approach.

Summary of key findings

- Direct effects between demands/resources were found across most of the tests, supporting this aspect of the DRIVE model. However, of note was that resources were not predictive of perceived stress and mental health problems in trainee clinical psychologists.
- The mediating effect of perceived stress, as suggested in the DRIVE model, also found support.
- The proposed moderation effects found mixed support.
- Dose-response relationships were found between the global NOF score and all the outcomes for all the populations.

3.5 Discussion

The partially mediating role of perceived stress found in this study supports other research using this approach (Capasso, 2015; Mark & Smith, 2008; Mark & Smith, 2012), and suggests the appraisal of stress is an important consideration for well-being policy. The mixed findings in regards to moderation effects are also in line with previous research (Mark, 2008; Mark & Smith, 2012; Capasso, 2015; Capasso, Zurlo, & Smith, 2015), and the occupational stress literature more generally (McClelland & Judd, 1993; Van Der Doef and Maes, 1999). The regressions accounted for a good amount of variance across all the tests.

As the remainder of this thesis focuses on nursing students and trainee clinical psychologists, it is appropriate to consider the most significant predictors of outcomes for these groups. In the nursing group, job demands and core self-evaluations were the most strongly associated predictors for mental health problems by beta weight. For perceived stress, the most strongly associated were job demands and negative childhood experiences, and for job satisfaction, resources and negative childhood experiences were the most strongly associated predictors. Alcohol consumption predicted all three outcomes for nursing students, but predicted none of the outcomes for the other groups. This was a surprising finding, particularly considering alcohol consumption is not directly related to self-perceived psychological ill health in the general student population (Wicki et al., 2010). This suggests alcohol could be an important, yet maladaptive coping strategy employed by nursing students and future studies and interventions might focus on this particular behaviour.

In the trainee clinical psychology group, the regressions revealed job demands and core self-evaluations were the most strongly associated predictors for the

outcomes perceived job stress and mental health problems. For job satisfaction, the strongest predictors were resources and relationship-focused personality. Resources were not associated with perceived stress or mental health problems in any of the trainee clinical psychology regressions, which might suggest other factors, such as individual difference variables, could be more important. Indeed, individual differences such as personality were the factors most strongly associated with outcomes for this group.

There is a dearth of research on the additive effects of occupational hazards on health and safety. There are currently no systematic literature reviews, no attempt to produce a coherent framework and a distinct lack of studies on the topic. In this study, dose-response relationships were found between the NOF and all outcomes for all populations. Dose-response is one of Hill's criteria for causality (Hill, 2005), and considered widely as one of the best predictors of causation for cross-sectional research (Patel & Sell, 2013; Falvo, Bradley, & Brooks, 2014).

However, a criticism of the additive effects approach is that by simply summing scores on negative items, the approach fails to account for the relative strength and importance of different items for the person. The approach could therefore be considered too simplistic, and may only provide basic information (i.e. that people who experience more negative issues are worse off). However, this combined NOF score can be used in a number of practical ways by organisations. For example, it can provide additional information on which particular groups have more combined negative issues, therefore allowing intervention to be focused more appropriately. Of course, it is important to note that the NOF score should not be the only analysis being carried out, and that this approach should simply complement the broader investigation into the population.

3.5.1 Conclusion to chapter 3

The aim of this chapter was to provide an overview of a methodological approach that can be used to investigate occupational stress. Cross-sectional research conducted on trainee clinical psychologists, nursing students and PhD students has been used as an example of how this approach might work in practice. The main tenets of the DRIVE framework have been tested in this chapter and support has been found for the proposed direct effects, as well as the mediation of perceived stress between demands/resources and outcomes. However, only little to moderate support has been found for the moderation effects, which is in line with previous research.

The next chapter adopts the multidimensional approach in a longitudinal study focusing on a sample of nursing students, with a specific focus on the academic, clinical and personal stressors reported by this population.

Phase 2

Stress and mental health in pre-registration nursing students

Chapter 4: A longitudinal study of stress and mental health in a sample of nursing students

4.1 Objectives

In this chapter, the multi-dimensional approach to investigating stress described in chapter 3 is adopted in a longitudinal study looking at nursing students. Specifically, there are two over-arching aims of this chapter. Firstly, a baseline model will be established for this group, and this will be informed by the DRIVE model (Mark & Smith, 2008) and a multi-dimensional approach to data analysis. Secondly, the remainder of the chapter will focus specifically on academic, clinical and personal stressors, as these have been found to be of particular importance to this population (Pryjmachuk & Richards, 2007; Pulido Martos et al., 2012). The implications of the findings for nurse training will then be considered.

4.2 Method

4.2.1 Participants and Procedure

At time point 1 (T1), a sample of 358 nursing students took part in the study. At time point (T2), 347 of the same participants completed the same questionnaire, meaning we retained 97% of the participants from T1. The nursing students were all from Cardiff University and completed the questionnaire in paper form, with the researcher going into lectures for recruitment. At T1, participants filled out the questionnaire in the middle of their first clinical placement of the 2014/2015 academic year. The main reason for collecting the data at this point was that the measures relating to clinical experiences were not applicable to first year participants up until this

point. Therefore, we waited until year one students had gained some clinical experience to allow them to draw upon these experiences in their responses. The timing of the follow up questionnaire at T2 was at the end of the 2014/15 academic year. There was a seven month time period between data collection at T1 and T2.

The mean age of the sample at T1 was 25.21 years (SD = 6.48, minimum 18 years, maximum 48 years). The majority were female (314, 86.9%), married or in a relationship (195, 53.7%) and of White ethnicity (335, 94.3%). In terms of year of training, 88 were in year one (26.07%), 147 were in year two (41.37%), and 123 were in their final year (32.7%). At T2, the mean age of the sample was 25.45 years (SD = 6.47, minimum 18 years, maximum 49 years). The majority were female (307, 87.4%), married or in a relationship (185, 52.7%) and of White ethnicity (325, 94.3%). In terms of their year of training, 85 were in year one (26.1%), 143 were in year two (41.7%), and 119 were in their final year (31.8%) of training.

In terms of response rate, at the beginning of the study there were 573 nursing students enrolled on the course. At time point 1, the sample size was 358 meaning 62.5% of the total available sample took part. At time point 2, there were 557 students enrolled on the course and 347 who participated, meaning 62.3% of the available sample took part. It is likely the actual response rates will be higher than reported here, and these are somewhat conservative estimates. For example, information on the number of students at T1 that enrolled but did not actually attend the course is not available.

Although there was a core nursing curriculum for all participants, the students did specialise in a particular branch of nursing during their degree programme. This included participants specialising in adult nursing (n at T1 = 196; n at T2 = 190), mental

health nursing (n at T1 = 90; n at T2 = 86), and child nursing (n at T1 = 72; n at T2 = 71). The focus of this study will be on the overall sample, however the analyses for each individual group are provided in the appendix.

4.2.2 Measures

A multi-dimensional approach to stress was adopted with the WPQ (Williams & Smith, 2014) being used to examine multiple factors. The WPQ allowed us to measure a high number of constructs including demographics using only 59 items. As mentioned in chapter 3, this is useful to help ensure response burden and attrition are kept to a minimum, and this is particularly the case when conducting longitudinal research. The specific items included in the questionnaire, and how they fit into the model, are described in table 4.1. All items used in this study have been checked in previous research to ensure reliability and validity (Williams & Smith, 2014; Williams, 2015; Williams & Smith, 2016).

4.3 Results

The Principal Components Analysis described in table 4.2 yielded 15 components; work resources, job demands, personal stressors, academic stressors, clinical stressors, lack of support on placement, perceived job stress, perceived life stress, alcohol, smoking, physical health, emotion-based coping, social support coping, positive personality traits, and mental health. Alcohol was considered at three different levels; 1) weekday alcohol consumption, 2) weekend alcohol consumption, and 3) total alcohol consumption. Six demographic factors were included; sex, relationship status, ethnicity, age, nursing speciality, and year of training. It can be seen from table 4.2 that the PCA at each time point yielded very similar results.

Factor	Individual items
Work characteristics	Demands, control, support, intrinsic effort, extrinsic effort, reward, hassles, uplifts.
Academic stressors	Time pressures, financial problems, challenges to your development, academic dissatisfaction, personal tutor relationship, friendship problems, social mistreatment, societal annoyances, and romantic problems.
Clinical stressors	Hassles from patients and relatives, heavy clinical workload, discrimination, death and dying, lack of support on placement, supervisor relationship, conflict with other nurses, conflict with physicians, being inadequately prepared.
Stress	Perceived job stress, perceived life stress, academic stress, and clinical stress.
Coping	Problem-focused, availability of social support, seeks social support, blame-self, wishful thinking, avoidance.
Health behaviours	Alcohol (4 items measuring units during weekend, units during weekdays, number of days drinking during the week and number of days drinking during the weekend), smoking, exercise, physical health.
Individual differences	Extraversion, neuroticism, self-efficacy, self-esteem.
Outcomes	Depression, anxiety, happiness, life satisfaction, job satisfaction.
Demographics	Age, sex, relationship status, ethnicity, speciality, year of training

Table 4.1. *The items from the WPQ allowed multiple constructs to be measured using only 59 items.*

General Stressors	T1 Factor Loading	T2 Factor Loading	T1 cumulative % variance	T2 cumulative % variance
Component 1: Work Resources				
Satisfaction with work relationships	.806	.780	49.9%	47.2%
Reward	.770	.680		
Support	.678	.759		
Control	.508	.477		
Uplifts	.364	.395		
Component 2: Job demands				
Demands	.831	.709		
Effort	.821	.763		
Hassles	.536	.521		
Academic Stressors				
Component 3: Personal stressors				
Friendship Problems	.853	.811	48.6%	52.6%
Social Mistreatment	.819	.880		
Societal Annoyances	.776	.760		
Romantic Problems	.442	.617		
Component 4:Academic stressors				
Challenges to your development	.803	.824		
Time pressures	.800	.750		
Financial problems	.500	.407		
Academic dissatisfaction	.244	.541		
Clinical Stressors				
Component 5: Clinical Stressors				
Hassles from patients and relatives	.732	.783	45.4%	46.1%
Conflict with other members of staff	.686	.679		
Death and dying	.674	.497		
Heavy workload	.537	.616		
Discrimination	.528	.356		
Component 6: Lack of support on placement				
Lack of Support	-.762	-.791		
Supervisor Relationship*	-.637	-.694		
Conflict with trainees/qual nurses/psychologists	-.617	-.690		
Being inadequately prepared	-.614	-.317		
Stress				
Component 7: Perceived job stress				
Course Stress	.839	.681	66.2%	67.1%
Academic Stress	.772	.641		
Clinical Stress	.564	.784		
Component 8: Perceived life stress				
Interference of Personal Life	.872	.865		
Life Stress	.863	.807		
Mental Health Outcomes				
Component 9: Mental Health				
Depression*	.849	.878	71.5%	70.6%
Happiness	.798	.677		
Anxiety*	.796	.864		
Life Satisfaction	.678	.560		
Health Behaviours				
Component 10: Alcohol				
Units during weekend	.748	.800	58.6%	61.5%
Units during weekday	.745	.803		
Weekend drinking	.688	.683		
Weekday drinking	.682	.765		
Component 11: Smoking				
Amount of smoking	.701	.783		
Smoking	.681	.801		
Component 12: Physical Health				
Exercise	.667	.809		
Physical Health	.531	.507		
Coping				
Component 13: Emotion-Focused Coping Strategies				
Wishful thinking coping	.771	.782	54.6%	51.5%
Self-blame coping	.765	.678		
Avoidance coping	.722	.710		
Problem-focused coping*	.487	.351		
Component 14: Social Support Coping Strategies				
Seeks Social Support	.816	.844		
Social Support	.695	.739		
Personality Style/Individual Differences				
Component 15: Positive personality traits				
Self-esteem	.888	.904	53.1%	51.4%
Self-efficacy	.706	.740		
Neuroticism*	.694	.661		
Extraversion	.429	.202		

Table 4.2. *Principle components analysis at time points 1 and 2. * = recoded variable*

As each single item was answered on an equivalent scale (i.e. 1-10), it is possible to sum the scores of each item within each component. For example, for the component ‘work resources’ (component 1 in table 4.2), the participants scores on the five individual items within that component were summed together to give an overall work resources score which could range anywhere between 5 and 50. The same approach was taken for all the components.

To reduce the bias implicit in utilising only complete cases, multiple imputation procedures were implemented using SPSS. One component (Academic Stressors T2) had 13.1% missing values, two had 12.3% missing values (Perceived Job Stress T2, Lack of Support at Work T2), whereas all other variables had below 8.4% missing values, suggesting multiple imputation is a suitable method to deal with the missing values in this data set. Little’s (1988) MCAR test was nonsignificant ($chi^2 = 960.044$, df = 1893, p = 1.00), indicating that the values were missing completely at random. The Markov Chain Monte Carlo method was used to impute the values. Descriptive statistics for the component scores are available in table 4.3.

Change scores were then computed for the change between T1 and T2 on the component scores. A dichotomous variable was created for each component by coding participants with an increased score between the two time points as 1 and participants with a decreased score between the two time points as 0.

	Time Point 1		Time Point 2		Possible
	M	SD	M	SD	range
Work resources	33.65	6.254	33.82	6.599	5-50
Job demands	19.08	4.843	19.24	4.725	3-30
Personal Stressors	13.59	7.320	14.35	7.683	4-40
Academic stressors	26.32	5.712	26.82	5.703	4-40
Clinical stressors	19.48	7.995	20.29	7.873	6-60
Lack of support on placement	15.73	5.658	15.98	5.890	4-40
Perceived job stress	20.68	4.612	20.53	4.513	3-30
Perceived life stress	10.90	4.567	11.09	4.361	2-20
Mental health	26.96	6.683	27.37	6.770	5-50
Weekday Alcohol	1.53	2.757	1.50	2.264	N.A.
Weekend Alcohol	4.50	4.828	4.919	4.957	N.A.
Total Alcohol	6.00	6.414	6.37	6.261	N.A
Physical health	10.33	3.574	10.08	3.634	2-20
Emotion-focused coping	22.13	6.905	21.35	6.637	4-40
Social support coping	15.14	3.403	14.91	3.297	2-20
Positive personality traits	32.63	7.581	32.38	7.294	5-50

Table 4.3. *Means and standard deviations for the component scores.*

Table 4.4 shows the results of the chi-square tests with mental health problems as the outcome variable. Next, backward logistic regressions were undertaken to investigate an initial 'best fit' multi-dimensional model for the sample. The backward stepwise approach was considered the most suitable method to use in the initial analysis because it can be useful when trying to establish a baseline model in which multiple predictors are included (Harrell, 2015). Furthermore, backward elimination involves the inclusion of all the variables in the model, therefore allowing the researcher to see how the model is formulated. The analysis included all IVs including demographic variables as covariates. The results of the analysis are displayed in table 4.5.

The next stage involved investigating a possible interaction between job demands/work resources and perceived job stress, as suggested in the DRIVE model (Mark & Smith, 2008). No significant interaction effect was found between job demands and perceived job stress. However, a significant interaction was found between work resources and perceived job stress (see table 4.6), providing partial support for this aspect of the DRIVE model.

Outcome: Mental Health Problems	Increased mental health problems n(%)	Decreased mental health problems n(%)	*P value*
Increased resources	71(35)	130(65)	
Decreased resources	81(52)	76(48)	.002
Increased job demands	83(50)	84(50)	
Decreased job demands	69(36)	122(64)	.010
Increased personal stressors	92(51)	90(49)	
Decreased personal stressors	60(34)	116(66)	.002
Increased academic stressors	89(50)	89(50)	
Decreased academic stressors	63(35)	118(65)	.003
Increased clinical stressors	89(50)	89(50)	
Decreased clinical stressors	63(35)	117(65)	.004
Increased lack of support on placement	68(41)	98(59)	
Decreased lack of support on placement	84(44)	108(56)	.595
Increased perceived life stress	88(56)	68(44)	
Decreased perceived life stress	64(32)	138(68)	<.001
Increased perceived job stress	81(49)	83(51)	
Decreased perceived job stress	71(37)	123(63)	.015
Increased emotion-focused coping	75(51)	73(49)	
Decreased emotion-focused coping	77(37)	133(63)	.008
Increased social support coping	73(37)	124(63)	
Decreased social support coping	79(49)	82(51)	.022
Increased positive personality traits	53(28)	140(72)	
Decreased positive personality traits	99(60)	66(40)	<.001
Increased weekday alcohol	20(46)	23(54)	
Decreased weekday alcohol	132(42)	183(58)	.566
Increased weekend alcohol	82(67)	41(33)	
Decreased weekend alcohol	111(47)	124(53)	.012
Increased total alcohol	87(62)	53(38)	
Decreased total alcohol	119(55)	99(45)	.158
Increased physical health	67(34)	132(66)	
Decreased physical health	85(56)	74(46)	<.001

Table 4.4. *Associations between mental health problems and each of the components for the changes between T1 and T2*

Outcome: Mental Health Problems	OR	CI	*P*
Work Resources			
Increase	1.00		
Decrease	1.829	1.118-2.992	.016
Social Support Coping			
Increase	1.00		
Decrease	1.676	1.020-2.753	.041
Positive Personality Traits			
Increase	1.00		
Decrease	3.321	2.043-5.398	<.001
Physical Health			
Increase	1.00		
Decrease	1.619	.992-2.641	.054
Academic Stressors			
Decrease	1.00		
Increase	1.632	1.001-2.662	.050
Clinical Stressors			
Decrease	1.00		
Increase	1.866	1.151-3.024	.011
Perceived Life stress			
Decrease	1.00		
Increase	2.577	1.578	<.001
Weekend Alcohol Consumption			
Increase	1.00		
Decrease	2.045	1.210-3.458	.008

Table 4.5. *Backward logistic regression analysis: Final step of the analysis only.*

Outcome: Mental Health Problems	OR	CI	*P*
Social Support Coping			
Increase	1.00		
Decrease	1.766	1.066-2.925	.027
Positive Personality Traits			
Increase	1.00		
Decrease	3.482	2.120-5.717	<.001
Physical Health			
Increase	1.00		
Decrease	1.652	1.003-2.719	.048
Academic Stressors			
Decrease	1.00		
Increase	1.546	.939-2.544	.087
Clinical Stressors			
Decrease	1.00		
Increase	1.957	1.197-3.198	.007
Perceived Life stress			
Decrease	1.00		
Increase	2.467	1.493-4.078	<.001
Weekend Alcohol Consumption			
Increase	1.00		
Decrease	1.946	1.142-3.314	.014
Work Resources			
Increase	1.00		
Decrease	.970	.486-1.936	.931
Perceived Job Stress			
Decrease	.750	.390-1.444	.389
Increase			
Work Resources * Perceived Job Stress	**3.665**	**1.352-9.936**	**.011**

Table 4.6. *Logistic regression analysis (Enter method) with interaction term Work Resources * Perceived Job Stress included*

Once the baseline multi-dimensional model was established, it was possible to consider specific questions that go beyond the multi-dimensional DRIVE model predictions. Therefore, the next stage of the analysis considered the factors that may interact with academic or clinical stressors in the prediction of mental health problems. More specifically, the following interactions were considered:

In the prediction of mental health, and when taking into account a multi-dimensional model of stress, do…

1) … academic stressors interact with clinical stressors?
2) … academic or clinical stressors interact with personal stressors?
3) … academic or clinical stressors interact with emotion-focused coping?
4) … academic or clinical stressors interact with social support coping?
5) … academic or clinical stressors interact with weekend alcohol consumption?
6) … academic or clinical stressors interact with personality traits?

To consider each question, relevant interaction terms were added to the baseline model. Table 4.7 summarises the findings.

Outcome: Mental Health Problems	**OR**	**CI**	***P***
*Academic Stressors * Clinical Stressors*	.493	.185-1.318	.159
Academic Stressors * Personal Stressors	**3.020**	**1.094-8.339**	**.033**
*Clinical Stressors * Personal Stressors*	.747	.280-1.995	.561
*Academic Stressors * Emotion-Focused Coping*	.912	.339-2.458	.856
*Clinical Stressors * Emotion-Focused Coping*	1.246	.463-3.357	.663
*Academic Stressors * Social Support Coping*	.684	.253-1.850	.454
*Clinical Stressors * Social Support Coping*	.815	.422-2.997	.815
*Academic Stressors * Weekend Alcohol Consumption*	1.196	.423-3.383	.736
Clinical Stressors * Weekend Alcohol Consumption	**3.144**	**1.102-8.971**	**.032**
*Academic Stressors * Personality Traits*	.403	.151-1.074	.069
*Academic Stressors * Personality Traits*	.1.307	.495-3.447	.589

Table 4.7. *Interaction effects above and beyond the baseline model*

4.3.1 Interactions

Significant interactions were found between work resources and perceived job stress, academic stressors and personal stressors, and clinical stressors and weekend alcohol consumption. The final model included all significant direct effects and interaction effects (table 4.8). This model predicted 72.6% of cases correctly, χ^2 = 105.644, p <.001, pseudo R^2 = .343.

Outcome: Mental Health Problems	**OR**	**CI**	***P***
Work Resources * Perceived Job Stress	**2.594**	**1.403-4.795**	**.002**
Clinical Stressors * Weekend Alcohol Consumption	**2.852**	**1.673-4.865**	**<.001**
Academic Stressors * Personal/Social Problems	**2.022**	**1.172-3.487**	**.011**
Social Support Coping			
Increase	1.00		
Decrease	1.848	1.113-3.070	.018
Physical Health			
Increase	1.00		
Decrease	1.758	1.071-2.884	.026
Positive Personality Traits			
Increase	1.00		
Decrease	3.416	2.078-5.615	<.001
Perceived Life stress			
Decrease	1.00		
Increase	2.238	1.358-3.689	.002

Table 4.8. *The final model with all significant interaction terms included.*

*4.3.2 Work Resources * Perceived Job Stress*

At increased levels of work resources, mental health was similar regardless of the level of perceived job stress. However, when work resources decreased, greater mental health problems were more likely in those with increased perceived job stress. Figure 4.1 shows this relationship.

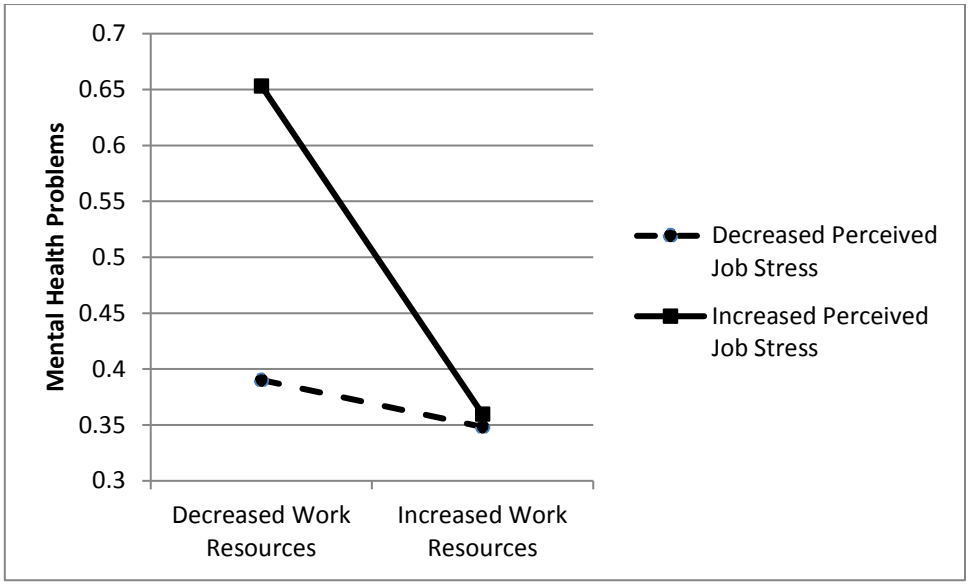

Figure 4.1. *Interaction between work resources and perceived job stress.*

*4.3.3. Academic Stressors * Personal Stressors*

When academic stressors decreased, mental health was not affected regardless of the level of personal stressors. However, when academic stressors increased, those with increases in personal stressors had significantly more mental health problems. Figure 4.2 shows this relationship.

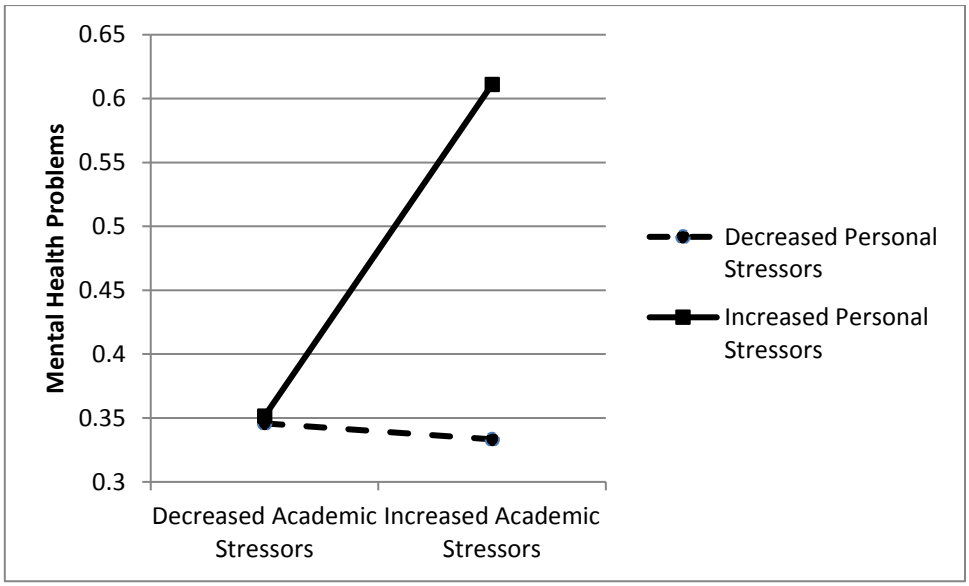

Figure 4.2. *Interaction between academic stressors and personal stressors.*

*4.3.4. Clinical Stressors * Weekend Alcohol Consumption*

There was no difference in mental health when clinical stressors decreased, regardless of the level of weekend alcohol consumption. However, when clinical stressors increased, those with increased alcohol consumption had significantly more mental health problems. Figure 4.3 shows this relationship.

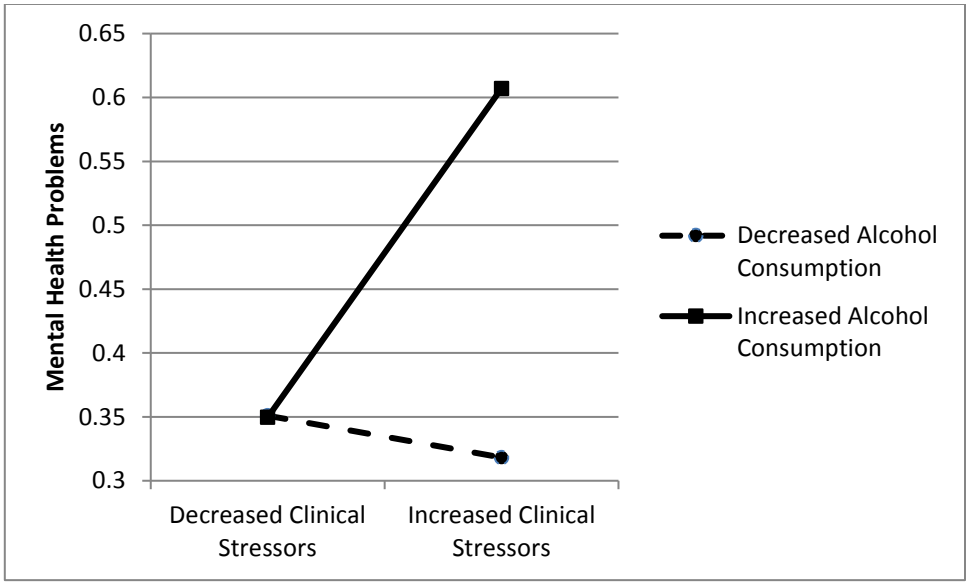

Figure 4.3. *Interaction between clinical stressors and weekend alcohol consumption.*

4.3.5. Direct effects

The original baseline model (table 4.1) included a number of direct effects. Personality (OR: 3.321), perceived life stress (OR: 2.577), weekend alcohol consumption (OR: 2.045), clinical stressors (OR: 1.866), work resources (OR: 1.829), social support coping (OR: 1.676), academic stressors (OR: 1.632), and physical health (OR: 1.619) all predicted the nursing students' mental health over time. A number of these direct effects remained in the final model with the interactions (table

4.8), including personality (OR: 3.416), perceived life stress (OR: 2.238), social support coping (OR: 1.848), and physical health (OR: 1.758).

4.3.6. Academic, Clinical and Personal Stressors at the Single Item Level

To investigate the stressors in greater detail, change scores were created at the single item level. Dichotomous increase/decrease scores were created for the academic, clinical and personal stressors, and these were included in the baseline model with demographic variables (sex, relationship status, ethnicity, age, nursing speciality, year of training). Table 4.9 shows the results of the analysis.

Outcome: Mental Health Problems	**OR**	**CI**	***P***
Academic Dissatisfaction			
Decrease	1.00		
Increase	2.583	1.570-4.252	<.001
Financial Problems			
Decrease	1.00		
Increase	1.683	1.039-2.727	.035
Time Pressures			
Decrease	1.00		
Increase	1.684	1.062-2.670	.027
Friendship Problems			
Decrease	1.00		
Increase	2.038	1.281-3.241	.003
Heavy Clinical Workload			
Decrease	1.00		
Increase	1.665	1.039-2.668	.034
Discrimination			
Decrease	1.00		
Increase	1.575	.966-2.565	.068

Table 4.9. *Backward logistic regression analysis including academic and clinical single items: Final step of the analysis only*

When investigating interactions between the variables at the single item level, the same steps were taken as at the multivariate level. Using this approach, the following interactions were found: 1) Being inadequately prepared * Death and Dying, 2) Heavy Clinical Workload * Academic Dissatisfaction.

*4.3.7. Being Inadequately Prepared * Death and Dying*

Table 4.10 shows the interaction between being inadequately prepared on placement and death and dying on placement. This effect increased the risk of mental health problems by three times (OR: 3.140).

Outcome: Mental Health Problems	**OR**	**CI**	***P***
Discrimination			
Decrease	1.00		
Increase	1.597	.964-2.647	.069
Financial Problems			
Decrease	1.00		
Increase	1.704	1.044-2.781	.033
Time Pressures			
Decrease	1.00		
Increase	1.673	1.045-2.678	.032
Friendship Problems			
Decrease	1.00		
Increase	2.109	1.314-3.385	.002
Heavy Clinical Workload			
Decrease	1.00		
Increase	1.532	.946-2.482	.083
Academic Dissatisfaction			
Decrease	1.00		
Increase	2.638	1.593-4.366	<.001
Inadequately Prepared			
Decrease	1.00		
Increase	.622	.326-1.187	.150
Death and Dying			
Decrease	1.00		
Increase	.528	.287-.970	.039
Inadequately Prepared * Death and Dying	**3.140**	**1.193-8.268**	**.021**

Table 4.10. *Logistic regression analysis (Enter method) with interaction term Inadequately Prepared * Death and Dying added.*

*4.3.8. Heavy Clinical Workload * Academic Dissatisfaction*

Table 4.11 shows the interaction between heavy clinical workload and academic dissatisfaction. This effect increased the risk of mental health problems by three times (OR: 3.042).

Outcome: Mental Health Problems	**OR**	**CI**	***P***
Discrimination			
Decrease	1.00		
Increase	1.628	.978-2.710	.061
Financial Problems			
Decrease	1.00		
Increase	1.700	1.039-2.781	.035
Time Pressures			
Decrease	1.00		
Increase	1.688	1.050-2.713	.031
Friendship Problems			
Decrease	1.00		
Increase	2.041	1.268-3.285	.003
Heavy Clinical Workload			
Decrease	1.00		
Increase	.696	.293-1.655	.413
Academic Dissatisfaction			
Decrease	1.00		
Increase	1.318	.595-2.922	.497
Inadequately Prepared			
Decrease	1.00		
Increase	.591	.309-1.133	.113
Death and Dying			
Decrease	1.00		
Increase	.535	.290-.985	.045
Inadequately Prepared * Death and Dying	**3.498**	**1.310-9.346**	**.012**
Heavy Clinical Workload * Academic Dissatisfaction	**3.042**	**1.086-8.524**	**.034**

Table 4.11. *Logistic regression analysis (Enter method) with interaction term Heavy Clinical Workload * Academic Dissatisfaction added.*

4.3.9 Interactions at the Single Item Level

*4.3.10 Inadequately Prepared * Death and Dying*

An interaction was found between feeling inadequately prepared for placements and death and dying on placements. Figure 4.4 shows that participants who reported an increased feeling of being inadequately prepared on placement had greater mental health problems when they also had increased experiences of death and dying on placement. However, when participants reported decreases in inadequate preparation the opposite relationship was evident, with participants with more experiences of death and dying reporting fewer mental health problems.

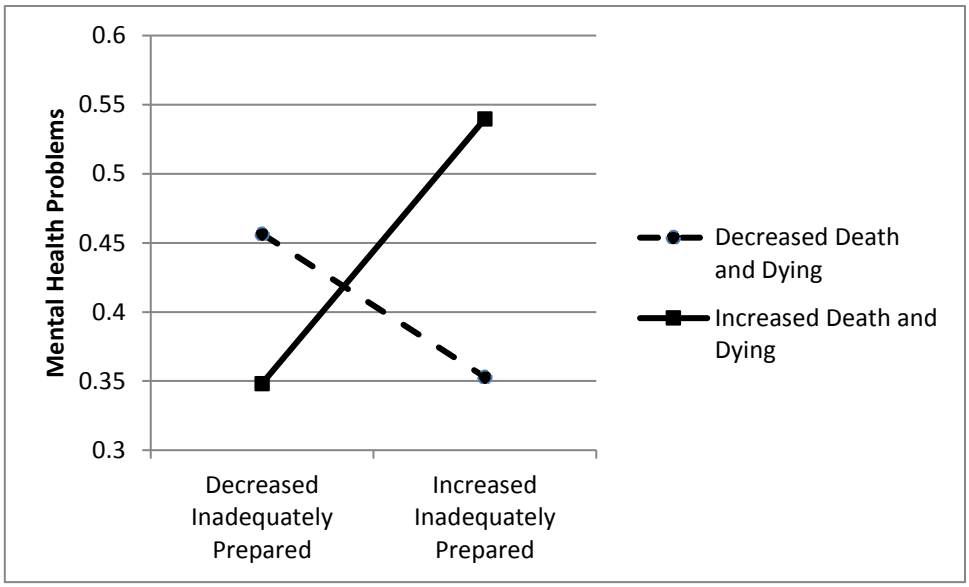

Figure 4.4. *Interaction between feeling inadequately prepared and death and dying.*

*4.3.11. Heavy Clinical Workload * Academic Dissatisfaction*

An interaction was found at the single item level between heavy clinical workload on placements and academic dissatisfaction. Figure 4.5 shows that more mental health problems were reported by those with increased academic dissatisfaction, and this is increased in those who also reported increases in clinical workload.

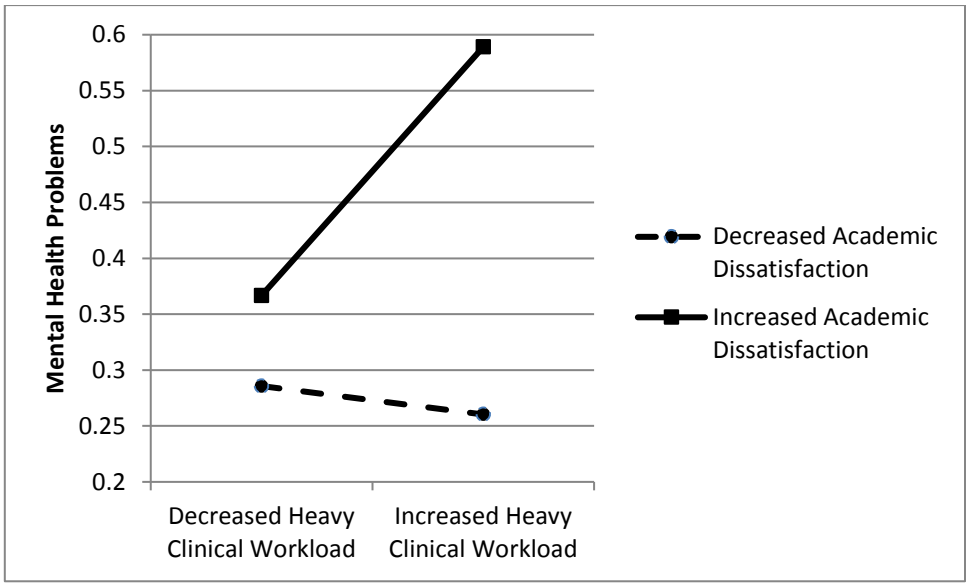

Figure 4.5. *Interaction between heavy clinical workload and academic dissatisfaction.*

4.3.12. Direct effects

Significant direct effects at the single item level were found. Academic dissatisfaction (OR: 2.583), friendship problems (OR: 2.038), time pressures (OR: 1.684), financial problems (1.683), heavy clinical workload (OR: 1.665), and discrimination (OR; 1.575) all predicted the nursing students' mental health over time.

4.3.13. Additive effects

Significant differences in the change between 'increased' and 'decreased' groups on the full dimensional scores was explored. In order to correct for alpha inflation due to conducting multiple tests, Bonferroni correction was used. Based on 26 tests, a p value of < .002 was considered to be statistically significant. The results are described in table 4.12. It can be seen from the table that all variables were highly significant at p<.001.

	Time point 1		Time point 2		P value
	Mean	SD	Mean	SD	
Work Resources Increase Group	31.70	5.97	35.97	5.62	<.001
Work Resources Decrease Group	36.14	5.71	31.06	6.75	<.001
Job Demands Increased Group	16.71	4.55	20.74	4.27	<.001
Job Demands Decreased Group	21.16	4.09	17.94	4.73	<.001
Personal Stressors Increased Group	11.85	6.41	17.49	7.52	<.001
Personal Stressors Decreased Group	15.39	7.77	11.12	6.41	<.001
Academic Stressors Increased Group	24.04	5.42	28.78	5.23	<.001
Academic Stressors Decreased Group	28.55	5.09	24.91	5.51	<.001
Clinical Stressors Increased Group	16.67	7.16	22.87	7.76	<.001
Clinical Stressors Decreased Group	22.26	7.83	17.73	7.13	<.001
Lack of Support on Placement Increased	13.58	5.32	18.95	5.82	<.001
Lack of Support on Placement Decreased	17.58	5.28	13.41	4.60	<.001
Perceived Job Stress Increased Group	18.91	4.42	22.14	4.05	<.001
Perceived Job Stress Decreased Group	22.17	4.24	19.18	4.45	<.001
Perceived Life Stress Increased Group	8.81	4.03	12.57	3.95	<.001
Perceived Life Stress Decreased Group	12.51	4.30	9.95	4.33	<.001
Mental Health Problems Increased Group	25.45	6.69	29.53	5.91	<.001
Mental Health Problems Decreased Group	29.01	6.13	24.44	6.77	<.001
Physical Health Increased Group	9.19	3.48	11.13	3.52	<.001
Physical Health Decreased Group	11.75	3.15	8.77	3.35	<.001
Emotion-Focused Coping Increased Group	19.23	6.55	23.66	6.34	<.001
Emotion-Focused Coping Decreased	24.16	6.41	19.72	6.36	<.001
Social Support Coping Increased Group	14.22	3.58	16.19	3.00	<.001
Social Support Coping Decreased Group	16.25	2.79	13.33	2.94	<.001
Positive Personality Traits Increased	30.24	7.43	33.79	6.94	<.001
Positive Personality Traits Decreased	35.42	6.77	30.73	7.37	<.001

Table 4.12 *Change between increased and decreased groups on the full dimensional scores*

The dimensions that showed a significant difference on the full dimensional scores were then summed together to compute the global NOF score and this score was split into tertiles. As all dimensions were significant, all variables met the criteria for inclusion in the NOF analyses.

The NOF was computed by recoding the increase/decrease scores so that “bad” factors were recoded as 1 and “good” factors were recoded as 0. For example, a participant that increased in job demands between T1 and T2 was coded as 1, whereas a participant that decreased in job demands between T1 and T2 was coded as 0. Decisions about the direction of the recoded variables were made based on relationships with the outcome variables and theoretical understanding. These scores were then added together to produce the global NOF score and this score was split into tertiles. Logistic regression was used to assess the association between the NOF score with stress and mental health outcomes. Table 4.13 shows dose-response relationships between increases in the NOF score and increases in stress and mental health problems. Specifically, participants in the highest tertile of the NOF were over four times more likely to report increases in clinical stress, and over seven times more likely to report increases in academic stress and mental health problems than participants in the lowest tertile.

Outcome: Academic Stress	OR	95% CI	p
Lowest tertile	1.000		
Middle tertile	3.407	2.008-5.780	<.001
Highest tertile	7.624	4.313-13.476	<.001
Outcome: Clinical Stress			
Lowest tertile	1.000		
Middle tertile	1.774	1.067-2.950	.027
Highest tertile	4.255	2.482-7.294	<.001
Outcome: Mental Health Problems			
Lowest tertile	1.000		
Middle tertile	3.493	2.008-6.077	<.001
Highest tertile	7.904	4.449-14.043	<.001

Table 4.13. *Logistic regression (enter method) for the relationship between NOF and stress and mental health outcomes.*

Next, each individual nursing group (mental health, adult and child) were investigated further using the NOF score. It can be seen by figure 4.6 that the mental health branch had the highest NOF mean score (6.33), followed by the adult branch (6.31), and then the child branch (5.93).

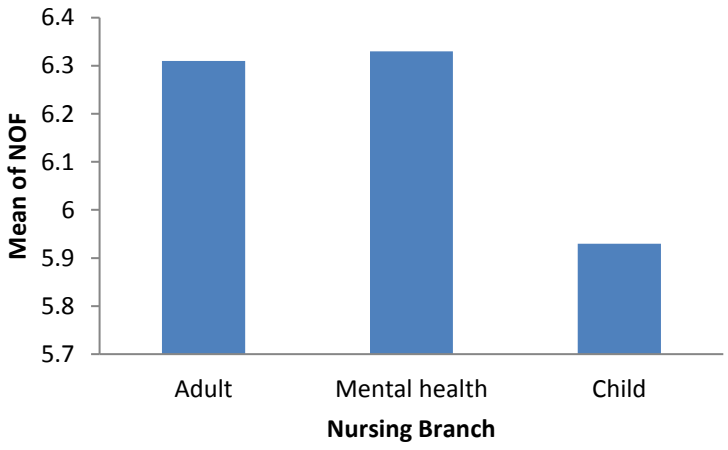

Figure 4.6. *Means for the global NOF score for each branch of nursing students*

Summary of key findings

Multi-factor level findings

- A dose-response relationship was found between the global NOF score and the outcomes academic stress, clinical stress and mental health problems.
- When taking into account combinations of variables, the mental health nursing students had the highest mean NOF score, followed closely by the students in the adult nursing branch, and then finally child nursing.

Factor level findings

- Direct effects on mental health problems included academic stressors, clinical stressors, work resources, social support coping, personality, perceived life stress, weekend alcohol consumption and physical health.
- Interactions were found between work resources and perceived job stress, academic stressors and personal stressors, and clinical stressors and weekend alcohol consumption.

Single-item level findings

- Direct effects included academic dissatisfaction, friendship problems, time pressures, financial problems, heavy clinical workload and discrimination.
- Interaction effects were found between being inadequately prepared and death and dying on placements. A further interaction between heavy clinical workload and academic dissatisfaction was also found.

4.4. Discussion

Occupational stress researchers adopt a variety of methods when carrying out their research, but the problem this creates is that studies can often find contradictory evidence due to these methodological differences. The method described here could, if developed further, provide a more systematic approach to stress measurement that can be flexible enough to be applied to any occupational group. Indeed, approaches to managing stress must be flexible enough to represent individual circumstances (Bliese & Jex, 1999), as well as being able to consider the multiple dimensions of the stress process (Smith, 2015).

Measuring multiple constructs using suitably designed single items can be helpful when including potential confounders in the model that would otherwise not be controlled for. Indeed, the effects reported here are present even when a multi-dimensional approach is adopted and a variety of other constructs are taken into account.

4.4.1. Implications for nurse training

There is an ever growing body of support for the inclusion of stress management education into the nursing curricula (Chernomas & Shapiro, 2013; Goff, 2011; Kang, Choi & Ryu, 2009). However, this can be a challenge for nurse educators when the curriculum is already filled with the necessary elements of preparing competent nurses. Although this is a challenge, overcoming this challenge is a must. Information regarding the relationships between variables, using a multi-dimensional model, can be useful for nurse educators when making key decisions regarding the most effective stress management interventions to implement in an already overcrowded curriculum.

For example, there is an abundance of evidence in support of mindfulness-based courses to help reduce mental health problems and teach new ways to manage stress (Deckro et al., 2002; Grossman et al., 2004). Indeed, previous research has shown decreases in perceived stress among nurses and nursing students who have engaged in mindfulness courses (Cohen-Katz et al., 2004; Song & Lindquist, 2015). Other benefits, such as reductions in anxiety and improvements in empathy, have also been found (Beddoe & Murphy, 2004). Therefore, a strong case has been put forward in favour of integrating mindfulness courses into the nursing undergraduate curriculum. However, stress management interventions such as mindfulness have rarely become a permanent feature in the education of nurses (Heard, Hartman, & Bushardt, 2013).

The results of this study showed that the relationship between work resources and mental health was mediated by perceived job stress. However, the relationship between demands and mental health, as suggested by the DRIVE model, was not mediated by perceived stress in this sample of nursing students. This was a surprising finding, particularly as the support for this relationship has been consistently strong in previous studies using this approach (Capasso, 2015; Mark & Smith, 2008; Mark & Smith, 2012). A reason for the mediation effect not being detected might be due to sample size, or due to the complex nature of the different types of demands for nursing students. That is, the wide array of potential demands for this group (i.e. academic, clinical, personal/social) might have bared some impact on these results as the demands scale used measured global demands. More research focusing on different populations, or with larger sample sizes, can help shed more light on this finding.

Pryjmachuk and Richards (2007) reported that personal, rather than academic, concerns predicted stress in nursing students. However, the authors did not consider

any interactions in their model, and the study suffered from other limitations related to cross-sectional data. The present study, using a multi-dimensional longitudinal design, found no direct effect of personal stressors on mental health. However, it was found that personal stressors interacted with academic stressors, but not with clinical stressors. Specifically, participants who increased in both academic and personal stressors between the two time points were significantly more likely to have poorer mental health outcomes than those who increased in academic but decreased in personal stressors. This suggests personal stressors are more likely to increase students' mental health problems during busy academic periods.

Previous research has suggested that when faced with personal problems, students with a lack of academic or social resources are prone to use maladaptive coping strategies (Skinner & Pitzer, 2012). Not surprisingly, these patterns are related to lower academic achievement, dropout, and other disadvantages for students (Finn & Rock, 1997; Furrer, Skinner & Pitzer, 2014; Janosz et al., 2008). It is therefore essential to examine the kinds and degree of support nursing students receive from their family and peers, in addition to ensuring suitable academic support is available. Furthermore, there is also the need for institutions to implement straight forward and accessible extenuating circumstances policies for nursing students, to help them deal with any personal stressors they might encounter during academically demanding periods. The wording and implementation of these policies should encourage the students to come forward when faced with difficulties, rather than being overly complicated, rigid, or unnecessarily harsh.

In a large sample of 1060 nursing students, Sotos et al. (2015) reported hazardous levels of alcohol consumption in over 40% of their participants. The researchers found that consumption habits were increased over the weekend, and this

was in line with the results of the present study. An additional finding in the present study was that weekend alcohol consumption interacted with clinical stressors but not with academic stressors. This could suggest that weekend alcohol consumption is an important, but maladaptive coping strategy employed by nursing students to deal with clinical stressors. Health promotion and prevention efforts with a specific focus on alcohol could be considered by training providers. Alternatively, more simple changes such as reduced alcohol marketing around the university campus, and not selling alcohol on site, can also help. A further finding in this study was that poorer physical health over time was related to more mental health problems. Therefore, by enabling easier access to other facilities, such as offering discounts on university gym memberships, institutions might encourage students to engage in positive coping strategies.

Although no significant interaction was found at the multivariate level between academic and clinical stressors, an interaction was found at the single item level between heavy clinical workload and academic dissatisfaction. This suggests experiences on clinical placement are not completely independent of academic experiences, and the two will interact with each other to influence student health. This finding makes sense, and suggests students engaged on placements with a heavy workload (e.g. students on wards with staff shortages) are more likely to be in need of greater academic support. However, there is also the possibility that the academic curriculum is not preparing the students appropriately for the clinical aspects of their work, which can increase stress (Dobbins, 2011). This has been shown in a number of studies in healthcare students who have reported feeling under prepared when providing a number of necessary features of care to patients (Johnson, Chang & O'Brien, 2009; Sullivan, Lakoma, & Block, 2003). For example, Gillan, van der Riet,

and Jeong (2014) conducted a review into end-of-life care education and concluded that undergraduate nursing programs are not adequately preparing students to care for dying patients.

The present study found that participants who reported inadequate preparation between the two time points reported more mental health problems when they also experienced more death and dying. However, when participants reported feeling better prepared for placement, the opposite relationship was evident. That is, participants who reported feeling better prepared, but experienced more death and dying, actually reported fewer mental health problems. This suggests it is not necessarily the amount of death and dying a student is exposed to that influences their mental health, but how prepared they are to deal with it. The results suggest that when students feel better prepared, the event of experiencing death and dying in patients can actually have a positive effect on long term mental health. Perhaps this finding is related to learning and personal growth in the students (Goff, 2011), or related to the development of resilience (Chen, 2011). Either way, these findings support previous research that recommends end-of-life care as a front runner in curriculum design, and suggests inadequate preparation for placement activities is associated with poorer mental health in nursing students.

4.4.2. Limitations

Although a good response and retention rate was obtained, it should be noted that our results might underestimate mental health problems in this sample if attendance is related to poorer outcomes. Indeed, students who were not in attendance during data collection might be more vulnerable to stress and mental

health problems than those that did attend. The design of this study failed to take into account this potentially confounding factor.

The limitations of the sample, with participants being exclusively from Cardiff University, restrict the generalisation of these results. However, by using a multi-dimensional design and incorporating short practical measures of wellbeing, this study can act as a model for future studies that might wish to measure nursing student health to improve stress management and curriculum design. These studies could be focused at the institutional level, such as in this study, or to the wider population of nursing students if larger sample sizes are established.

The use of dichotomised variables in this study is likely to come under scrutiny. Other analysis strategies are of course possible with the multi-dimensional approach and this should depend on the research question at hand. However, the purpose for dichotomising the variables is simply for ease of interpretation. When considering multiple predictors in a model it can become difficult to look at the broader picture of what is actually going on for the population. However, by focusing purely on the process of stress (i.e. by focusing on whether participants increased or decreased in particular variables over time), a clearer picture is possible.

4.4.3 Conclusion of chapter 4

This chapter built on chapter three and adopted a multi-dimensional approach to measuring stress. The focus was on the academic, clinical and personal sources of stress in nursing students. It should be noted that the multidimensional approach described here would also allow other variables to be the main focus of the investigation. For example, the impact of coping strategies and individual differences

could have been explored. However, such findings in nursing students were beyond the scope of this study.

The multi-factor level results suggested that mental health nursing students are exposed to greater increases in negative circumstances over the course of their training programme than the other groups, although this was only marginally higher than adult nursing students. This could be due to the psychological nature of the mental health field, and the fact that many of the variables measured in the study were related to mental health issues. In other words, by working in mental health settings during their training, mental health nursing students are likely to be exposed greater psychological stressors and demands than other types of nursing students (Pryjmachuk & Richards, 2007). For this reason, the next chapter explores stress in mental health nursing students further using qualitative research methods. This group are likely to be exposed to the stressors reported by nursing students more generally, but with the additional stressors related to being a mental health professional.

Chapter 5: Mental health nursing students: A thematic analysis of qualitative interviews

5.1 Objectives

This chapter presents a thematic analysis of qualitative interviews with a sample of mental health nursing students. The objective was to investigate the stressors and coping strategies reported by this group.

5.2 Introduction

5.2.1 Stress in mental health nursing students

Mental health nursing students are a specific group of nursing students that might be particularly vulnerable to stress (Tully 2004, Nolan & Ryan, 2008). Nursing students training in the mental health branch report similar stressors as nursing students in general (e.g. related to academic, clinical, or personal), but may also have additional stressors due to the psychological nature of their work (Kipping, 2000). Indeed, mental health nursing students will have stressors related to being a student nurse, as well as stressors related to being a trainee mental health professional. This makes mental health nursing students a particularly interesting group to investigate further.

5.2.2 Purpose of this study

Many previous studies have adopted quantitative methods to examine stress in mental health nursing students, but there are a number of limitations with this approach. For example, when constructing their instruments, investigators often assume they know which stressors they should assess (Ravazi, 2001; Beiske, 2002). However, this approach may lead to researchers ignoring a wide variety of variables

that are meaningful for the population being investigated (Creswell, 2003; Ritchie et al., 2004). Therefore, to complement the quantitative research, qualitative research is required.

5.3 Methods

5.3.1 Participants

Semi-structured one-to-one interviews were conducted with a sample of mental health nursing students (n = 12) enrolled on a three-year pre-registration nursing undergraduate degree at Cardiff University. The students were all aiming for BN (Hons) in Mental Health Nursing, with registration in the mental health nursing field. Demographic details for the sample are provided in table 5.1.

Sex	**Age range (mean)**	**Year of training (n)**	**Ethnicity (n)**
Females = 8 Males = 4	19-39 (M = 25.58)	Year 1 (n = 2) Year 2 (n = 4) Year 3 (n = 6)	White British (n = 12)

Table 5.1 *The participants demographic information.*

Interviews lasted around 45 to 60 min and were audio recorded. The participants gave informed consent, were made aware that they could refrain from answering any questions they did not feel comfortable answering, and could withdraw from the study at any time. At the end of the interview, participants were debriefed and provided with contact details for the university support services should they be required.

5.3.2 Procedure

Before interviews began, a meeting with a newly qualified mental health nurse who had just completed the course was arranged. This individual discussed some of the main issues they came across during their education and, using this information as a guide, the questions to be asked to participants were developed. The list of

questions is available in table 5.2. After the interviews, transcripts were prepared, rendered anonymous, read and coded. The participants were made aware that while confidentiality is protected, this protection had its limits. If any disclosures were made that indicated an intention to harm themselves or others, then the researcher would have to breach confidentiality and report these disclosures to others. This included any disclosures of malpractice or suboptimal care of clients.

Introductory questions
1. What made you want to become a mental health nurse? 2. What made you choose this career path? 3. At what point did you realise you wanted to become a mental health nurse? 4. Were there any other career paths you considered?
Questions related to experiences on the course
5. How was/is your first year of training? 6. How were the placements during this year? 7. How was the academic side of the course during this year? 8. How was/is your second year of training? (if applicable) 9. Repeat questions 6 and 7 here. 10. How was/is your third year of training? (if applicable) 11. Repeat questions 6 and 7 here. 12. Is there anything specific about the stage of training you are currently at which is particularly stressful? 13. Is the training harder or easier than you expected so far? 14. Overall, do you feel like you belong or 'fit in' on the course? 15. Overall, do you feel like you fit in academically? 16. Overall, do you feel like you fit in on placements? 17. Have the academic aspects of the course coincided with the clinical aspects? 18. Have you ever been asked to do something that you didn't feel comfortable doing on placement? 19. Have you ever been close to giving up on your training? If so, why were you thinking of giving up? What made you stay? 20. How is your work/life balance? 21. Do you think the training has impacted your personal life? Or, the other way round, has your personal life interfered with the course in any way? 22. How are the support systems on the course? Have you used any? If so, how did you find these experiences? 23. Do you feel like you have changed in any way since commencing training? 24. Do you feel like any of your experiences have been particularly important in shaping the person you have become? 25. What coping strategies do you use? 26. Is there anything that hasn't been mentioned, related to nurse training or anything else, which you think might be relevant to the topic of this study? Specifically, to do with the topic of stress?

Table 5.2. The initial questions that were developed.

The consolidated criteria for reporting qualitative research (COREQ; Tong et al., 2007) were followed to structure the qualitative chapters in this thesis (i.e. chapters 5 and 7). These guidelines propose that background information of the researcher should be described (Tong et al., 2007). The interviewer (John Galvin; JG) is a male Psychology PhD student with experience of carrying out qualitative research for dissertation projects during his academic career. He also has previous experience of publishing a qualitative paper in a peer-review journal. The fact that JG's academic background is not associated with the nursing department has advantages and disadvantages. An advantage is that participants might answer more honestly to questions from an 'outsider'. For example, if the interviewer was an academic member staff in the nursing department then participants might be less likely to raise concerns with this person. A disadvantage is that a lack of mental health nursing experience may hinder the author's interpretation of the data. However, attempts were made to address this limitation, as will be described later in the analysis section of this paper.

5.3.3 Analysis

Thematic analysis (Braun & Clarke, 2006) was the analysis strategy employed. The flexibility of thematic analysis allows data to be analysed under a number of different qualitative frameworks and, for this study, the framework chosen was grounded theory (Strauss & Corbin, 1998). Therefore, theoretical developments were made in a bottom up manner in order to be anchored to the data. As interviews progressed, the responses to questions given in earlier interviews informed new questions to be asked in future interviews. An inductive approach to analysis was chosen as the most appropriate, as this kind of analysis is data-driven, and allows for unexpected themes to be identified (Braun & Clarke, 2006). The increasing popularity of this approach to data analysis in health research (e.g. Crawford et al., 2008) is

largely due to researchers wanting to extract themes from data without having to subscribe to the theoretical commitments of a ‘full-fat’ grounded theory (Braun & Clarke, 2006).

In their paper, Braun and Clarke (2006) described a step-by-step guide to conducting a good thematic analysis. First, the researcher should familiarise themselves with the data through transcription, and by reading and re-reading the data while making notes about their initial interpretations. The researcher should then generate initial codes, and collate the data relevant to each code in a systematic fashion. Next, the codes should be collated into potential themes and these themes should be reviewed by checking they are logical in relation to the extracts and the entire data set. The themes should then be named and defined.

The analysis strategy involved JG and three other research assistants analysing the data separately, with each of them following the Braun and Clarke (2006) recommendations. Then, all four researchers met for an analysis session, which involved discussing the themes generated by each of them. Importantly, none of the themes were discussed between the researchers before this point, as a general consensus would strengthen the trustworthiness of the findings.

During the analysis session JG first asked each research assistant to present their findings individually. The key concepts and ideas reported were mapped out on a whiteboard during this initial stage. When agreement was found between the researchers, the concepts and ideas that were agreed upon were moved forward to the next stage of the analysis. When agreement was not reached, the researchers engaged in further discussion to reach a conclusion. In the second stage of the analysis, the initial concepts and ideas were moved around and links were made

between them to form more structured sub-themes. These sub-themes were then organised into higher order themes.

During the analysis session, it became clear that the researchers' individual interpretations of the transcripts were very similar, this gave the researchers confidence that their interpretations of the data were indeed trustworthy. Further reviews of the data were carried out to confirm these interpretations were traceable. This involved the researchers re-reading the transcripts after the themes were established to further validate the findings. In addition to this, an experienced mental health nursing educator later read over the themes to consider the feasibility of the findings. All the steps taken in the analysis are summarised in table 5.3.

Table 5.3. *The five phases in the analysis and a description of the processes involved.*

Phase	Description of process
1. The lead researcher and three research assistants followed Braun and Clarke's (2006) recommendations:	Each researcher read and re-read the transcripts, made notes on their initial interpretations, generated codes, collated codes into potential themes, reviewed the themes and defined and named the themes. This was all done by working separately from one another.
2. The researchers met for an analysis session to consider the codes and themes generated by each author:	A meeting was set up and the researchers described their interpretations of the data individually. Findings were compared and contrasted with each other and discussions took place regarding any differences that occurred. The final themes were agreed upon.
3. Final reviews of the data to further validate the findings:	Each researcher then read through the transcripts again to ensure the final themes were truly reflective of the data.
4. The report was produced:	Each theme was written up into a report and data extracts were selected to be used as examples when describing each theme.
5. Validation from a mental health nurse educator:	A mental health nursing educator read over the themes and considered the credibility of the findings.

5.4 Results

Three superordinate themes emerged; demands/control/support, attitudes towards students and stress and coping.

5.4.1 Theme 1: Demands/Control/Support

The first theme described the demands that are placed on the students, the level of control they feel in their work and the support systems available to them. In regards to demands, participants described how in comparison to other students, the demands of nursing courses were much higher.

> Participant 6: *"The actual amount of work they put on us alongside the placement is quite a lot… I mean the hardest thing is seeing other students being able to get all the time off, and doing what they want all the time and we're always in."*

Contact hours were frequently mentioned and participants described how other students do not understand how stressful that can be.

> Participant 4: *"So you hear people talking about how they did eight hours this week and I'm sat there thinking: yeah, I do eight hours a day, five days a week. And it's only other nursing students that understand that, and how stressed out you get by it."*

More specifically to mental health nursing, participants described how the nature of mental health work can be emotionally demanding.

> Participant 12: *"I've found the emotional side of some placements quite difficult to deal with. Like, seeing patients who are really unwell and patients who need*

> *quite a lot from you in terms of support. I mean, obviously that's what I'm there to do, to support them, help them through it. But the listening side of things can be quite mentally exhausting and after a long shift I just shut down and tend to try and avoid talking to anybody!"*

However, for many participants, the academic side of the course 'gets in the way' and the most enjoyable aspect has been the clinical work.

> Participant 11: *"I've found the academic aspects of it quite hard to deal with and I'm struggling to cope with that in some ways and getting it all done and to be on top of deadlines and things. But the actual placement itself has been really good and it's definitely the thing I'm here for, always you want to be on placement, you don't want to be doing the academic stuff. I can definitely see why people say that."*

Many participants have to take up paid work to stay on top of finances, which added further to the demands.

> Participant 10: *"At the moment the work/life balance is not so good. I work weekends as a support worker, just so I get enough money. So, when I'm on placement I'll work, like, 40-50 hours and then I've got assignments. It really takes it out of me."*

Home life demands were very common. Many participants described issues related to their own or family members' mental health problems.

> Participant 1: *"My mum has severe mental health problems and so does my sister, so, I've had quite a lot of issues to deal with on top of the course."*

A lack of staff on placements made the clinical side of the course more demanding. Students often felt like they were treated like an extra pair of hands on the ward.

> Participant 8: *“My last placement was very stressful due to them having a low number of staff… I felt I was being used as a member of staff instead of being there to learn.”*

Staffing problems on placements led the students to feel a lack of control. Many described how they felt vulnerable on placements with staff shortages.

> Participant 10: *”There was a patient who at the time was walking around with a pair of scissors and looked quite nasty, and just kind of wanted to kill someone and it, it was things like that made me think ’I'm on this ward, like, there aren't enough staff here, there are loads of really quite upset patients, and they can't really manage these patients because there are so many of them and there aren't enough staff’... So, yeah, everyday I felt particularly vulnerable on that placement and there was always an instance everyday.”*

This participant went on to discuss one incident that caused particular distress, and how there was a lack of support available for them. The student had not followed correct procedures but was then not debriefed about the situation appropriately.

> Participant 10: *”There was one particular day where two large guys were fighting with each other and there was nobody else intervening. They had three female nurses on the ward and that was it, and they were trying to pull the guys apart and I got involved with that. I knew I shouldn't have because the nurses told me before that I shouldn't have, but I didn't see that there was any other way to resolve that situation without me intervening. Then one of the nurses*

actually stepped in afterwards and said I should've pulled the alarm, which I forgot to do. But what I didn't like after that particular incident was that nobody really debriefed me about it, so I found that quite stressful. The whole incident I found stressful, but nobody actually came up to me, and said 'are you okay?', like 'how did that go for you?', and I felt that I couldn't say to someone 'that was a bit emotional' because everybody was so busy all the time."

Participants described how they felt restricted on some wards as to the things they can and cannot do. For example, participants discussed how not being able to get involved in restraining patients actually made them feel more vulnerable.

Participant 2: *"Because I've already worked in the mental health field, I'm obviously already trained in restraints and stuff, but we're not allowed to carry them out on placements as students, so it's more, how do you stop something from happening without actually getting in there if you know what I mean? There was one time where two nurses had to restrain a patient but there was only me and another nurse in there and obviously I was trying not to do anything but also trying to stop him hitting the nurse waiting for another member of staff to come in. It's a strange situation, when the unqualified staff members can restrain patients but students who are meant to be learning to be a nurse, can't, and it does make me feel quite unsafe."*

Students believed some placements were not suitable for the level of clinical expertise they had. This made them feel a lack of control in these placements.

Participant 8: *"My year one placement was not suitable for a first year student… On that particular placement I felt completely out of my depth."*

The level of support the student received was described as being important to help them cope with the demands of the course. The importance of having a good clinical mentor was acknowledged by the students. Participants described good and bad experiences.

> Participant 6: *"If you've got good mentors then I think it's alright, if you've got someone who will show you the ropes or whatever, and give you that support, then it isn't too bad."*

While many were happy with the relationship with their personal tutors, a number of participants suggested they would like to receive more support from them.

> Participant 4: *"I would like to think that if I was somebody's personal tutor that I knew was going through a really crap time, I would like to think that I would be like "do you want to have a chat?" But that was never offered."*

The students reported a lack of support from the university for healthcare students in general. For example, participants described how they struggled to gain access to counselling services.

> Participant 12: *"I wanted to speak to someone about some issues and I found that they're not very accommodating for healthcare students. The counselling support services work 9-5 and when I'm in lectures 9-4 I can't get around to speak to anyone, and then when I'm in placement I find that there's not an opportunity for me to go and do that, so I feel like maybe from that aspect I've been a little bit let down support wise from the uni."*

5.4.2 Theme 2: Attitude towards students

The second theme highlighted the students' experiences on placements and how attitudes towards students from some staff members impacted on their experience. These experiences were often expressed as a source of stress. Students described how at times they were made to feel unwelcome by others in the team.

> Participant 8: *"I turned up to placement one time and I was sat in the waiting room. I looked a bit young and they didn't realise I was a student and my mentor was there and actually said 'oh no not another student, I really don't want them' and then got introduced to me, so that was nice… The whole placement they just didn't want me to be there so at the end of the placement she actually said to me do I mind giving them bad feedback so they don't need to have students any longer, so that wasn't very nice. I felt very unwelcome and, I think probably because the wards are so busy, and most of them have a lack of staff, they don't want students straight away and so it takes a couple of weeks to be welcomed. But once you've got stuck in they tend to want you there if that makes sense. However, mainly at the beginning I haven't felt welcome in lots of placements."*

The feeling of being unwelcome was often seen as a barrier to receiving appropriate support.

> Participant 10: *"I've had a couple of placements where I felt like the nurses really couldn't care less whether I was there or not, and one particular placement where my mentor just didn't interact with me at all. I found that a really negative experience because there was just no support for me there... They just don't have enough time, or resources, or patience for the students."*

Mental health nursing students on this degree programme are required to gain some experience in other nursing specialities on offer at the university (in adult and child nursing). When working in these settings, students described how there was at times discrimination from staff towards mental health nursing students and their clients.

> Participant 5: *"My adult ward were not very welcoming of me. I had a lot of comments of 'oh, now you're here you can do some proper nursing'. It's just like little comments like that and 'ah you go and work with all the crazy people' and all this and, I had one person there who was saying to me that they don't see depression and schizophrenia as being a mental illness because they bring it on themselves. It's just sort of like, you have no idea! And these people are supposed to be nurses, they are qualified nurses that just don't work in mental health, but you're thinking that's really not a good attitude to have."*

Participants described how being a student restricted the tasks they could perform on placement and this often caused issues with other members of staff.

> Participant 3: *"They will quite often ask you to escort patients on your own who are under section, and we're not allowed to do that as a student… So I've had quite a few difficulties with that."*

The students described the difficulties of raising concerns as a student, and how they have been marginalised when they expressed concerns about quality of care.

> Participant 6: *"I had a few issues with the staff because I brought up things where I thought there wasn't proper behaviour by the staff. They were a really close group and just having a go at me for that and saying I wasn't in any place to tell them what to do because I'm a student."*

5.4.3. Theme 3: Stress and coping

A number of participants reported feeling high levels of stress because of the course, with many describing how they have themselves developed mental health problems. This was particularly prevalent in third year students.

> Participant 8: *"This is going to sound dramatic, but I feel kind of burnt out already and I'm only in my third year of training. I'm going to have a bit of a break before I go into work because I'm a bit concerned, I feel absolutely shattered from the course."*

Age and experience appeared to buffer against stress, with mature students and students with more experience reporting that they are coping well with the course.

> Participant 7: *"I'm not sure I'm ever that stressed anymore, to be honest... I think that with my age I've realised that I don't need to be as stressed as I've made myself in the past."*

However, students who started the course at a younger age reported struggling to manage.

> Participant 8: *"In the first year, I was 18, I was turning up, but a lot of people commented that 18 wasn't really mature enough, and I do feel in agreement to be fair, you do need a bit more experience. Looking back, it was too young, only because I'd had no experience before, so it was a shock, it was tough. I'm not an immature person, but I don't think 18 and having to get stuck in like I did, especially in mental health, it's a bit too young. You need to get a bit more experience to be mature enough to be able to deal with that."*

Nonetheless, despite her young age, this participant felt that she had developed resilience, and this could help her in her future career.

> Participant 8: *"Stresswise, because it's been so stressful, I have managed to get through it. So hopefully when I start working I'll cope with the stress well. One of my placements was really hard and I went through that, and yeah, I think that'll help me. What I am trying to say here, is that because I've seen certain things and just had to get on with it, it's helped me do things by myself more."*

With the high demands of the course, many reported how they would often be too tired to engage in positive coping strategies.

> Participant 8: "*I like to go the gym to release the stress and that makes me feel so much better, but when I'm on placement and things I really don't get the time, I'm just so exhausted all the time."*

Alcohol was seen as a release for many, although many recognised this as being a negative coping strategy.

> Participant 5: *"I do think I drink a lot more when I've had a stressful week. So when I go out with my friends, I know I drink a lot more than if I wasn't stressed."*

The development of the themes are described in tables 5.4 (theme 1), 5.5 (theme 2) and 5.6 (theme 3).

CONCEPT/IDEA	SUBTHEME	THEME
Students reported demands were higher in nursing courses when comparing to other courses. This caused them frustration when making these comparisons.	Demands	Demands/Control/Support
The Emotional demands involved in working in mental health settings adds a further dimension to the clinical demands		
Students had a preference for clinical demands over academic demands. There was a sense that academic demands “get in the way” and are a “hassle”.		
Personal demands such as home-life and financial difficulties were very common. Participants described how family mental health problems, or their own mental health problems, had caused them problems dealing with the course demands.		
A lack of staff on clinical placements led to feeling a lack of control. Students raised concerns around their own and others safety and wellbeing.	Control	
Feeling restricted in the tasks they can do on clinical placement (e.g. restraining patients) leads to a lack of control (safety and wellbeing issues were raised)		
A mismatch between their level of clinical expertise and the suitability of the clinical placement was reported and lead to feeling “out of their depths”. Again, safety and wellbeing issues were raised.		

The importance of a good clinical mentor was frequently mentioned. Participants reported positive and negative experiences - and suggested quality of supervision was variable.	Support	
More support from personal tutors, particularly when personal demands were interfering with the course.		
Participants reported struggling to gain access to university support systems (e.g. counselling, advice, support). The university was seen as not being very accommodating for healthcare students who were away from the university on busy placements.		

Table 5.4 *The development of theme 1 Demands/Control/Support. From left to right shows the initial concept/idea, the sub-theme, and the superordinate theme.*

CONCEPT/IDEA	SUBTHEME	THEME
Students are seen as a nuisance by some members of staff.	Feeling unwelcome on placements and barriers to support	Attitudes towards students
Feeling unwelcome on placements led to students reporting a lack of support on those placements.		
Participants reported a lack of time, resources, and patience for the students		
Not being listened to and being ignored on placement	Students should be seen and not heard	
Participants reported difficulties with raising concerns on placements as a student.		
Participants reported being marginalised if they expressed concerns about the quality of care they had witnessed.		
Participants described how being a student restricted the type of tasks they could perform on placement. When informing staff that they are not able to carry out particular tasks (e.g. escorting patients on their own) this caused conflict with staff members.		
Participants described how when they were on non-mental health based placements (e.g. adult or child placements) they would experience discrimination towards them for being a mental health nursing student.	Attitudes towards mental health students and their patients	
When participants were on non-mental health based placements they reported experiencing discrimination towards mental health patients.		

Table 5.5 *The development of theme 2, Attitudes towards students. From left to right shows the initial concept/idea, the sub-theme, and the superordinate theme.*

CONCEPT/IDEA	SUBTHEME	THEME
Course demands have increased over the three years. Participants reported that with more demands comes higher levels of stress.	Stress levels have increased incrementally over the three years of training	Stress and coping
Expectations have increased over the three years. With more responsibility comes more stress.		
Participants in their third year reported feelings of burnout		
Mature students felt that because of their age they could cope better with the demands of the course.	Age and experience as a buffer against stress	
Younger participants reported struggling to manage with the emotional demands on mental health placements.		
Those who had previously worked in mental health settings reported feeling prepared to deal with anything the course had to throw at them.		
Participants reported being too tired to engage in positive coping strategies	Students generally reported engaging in negative coping strategies	
Some participants reported drinking more alcohol when stressed (binge drinking on weekends)		

Table 5.6 *The development of theme 4, Stress and Coping. From left to right shows the initial concept/idea, the sub-theme, and the superordinate theme.*

Summary of key findings

- Participants reported high demands and difficulties with balancing both academic and clinical workload.
- A lack of control was reported when the placement was not a suitable match with their current level of expertise. A lack of control was also attributed to staff shortages.
- Difficulties gaining access to university counselling services were reported. In particular, opening hours were not considered flexible enough for nursing students.
- The attitude of some staff was reported as being particularly stressful, and the students felt unwelcome on some placements.
- Raising concerns about the quality of care on placements was difficult, and related issues were discussed.

5.5 Discussion

This study provides an insight into the experiences of stress in mental health nursing students and adds to the existing literature in this area. To help consider the implications of these findings, suggestions are made to allow nurse educators reflect on their practice and consider ways they can help students cope with the stress of training. Additionally, the findings are considered in relation to the stress and nursing literature.

5.5.1 Demands/Control/Support

The Demand-Control-Support (D-C-S) model (Johnson & Hall 1988) could be used to define one of the themes. This model is an extension of Karasek's (1979) Demand-Control (D-C) model, in which jobs with high demands and low control are considered "high strain jobs". Johnson and Hall (1988) added the support element to the model, and this D-C-S model proposed that the adverse effect of demands on outcomes is buffered when both control and social support are high.

In terms of demands, participant responses in the present study are similar to findings elsewhere on nursing students, with mental health nursing students reporting

an unreasonable workload (Gibbons et al., 2008; Tully, 2004; Pryjmachuk & Richards, 2007). Educators must therefore ensure the amount of academic work is achievable when students are out on placement. Over working students during these periods can have an impact on the students' stress levels, their engagement and enthusiasm while on the placement and, ultimately, the quality of care their patients receive.

To help students feel a sense of control over their environment, it is important to ensure that the placement is suitable for their level of clinical expertise. Knowing which placements are suitable at different stages of the students degree is important, and educators should therefore continually review the placements and the students being sent to them (Nolan & Ryan, 2008). It is also necessary that feedback is taken on board from both the placement and the student, and that any discrepancies between the students' clinical expertise and the suitability of the placement are learned from. This may be particularly important in mental health placements, due to the psychological nature of the work and the potential impact a lack of appropriate skills may have on students in these settings.

A lack of control on placement was often attributed to staffing levels. Indeed, in the current NHS environment it is likely that students will end up in workplaces that are short of staff (Scott, 2014; Kmietowicz, 2015). Trying to care for mental health patients in these environments can be challenging, and students will inevitably feel vulnerable in these settings. If students made mistakes on placements with staff shortages, they reported a lack of debriefing and appropriate support. It is the duty of staff on placements to ensure any mistakes are discussed with the student and how they might approach similar situations in the future is explored. Additionally, regulators should continually review the suitability and safety of placements with staffing problems.

In terms of support, previous research suggests many mental health nursing students will avoid turning to counselling or other types of professional support to help deal with stress (Cankaya & Duman, 2010). Indeed, Galbraith et al. (2014) found that nursing students reported a preference to disclose stress to friends and family rather than to colleagues or professional institutions. Goff (2011) suggested this reluctance to seek professional support could be due to students perceiving accessing such services as a sign of weakness, or a sign that they cannot cope with the stressors inherent to the job. In the present study, there were further barriers to accessing professional support. Participants described how they struggled to gain access to university counselling services due to opening hours clashing with clinical placements. Arrangements should therefore be made to help allow the student to access other services outside of placement hours, even if these are limited in scope. A drop in facility could be particularly helpful here. Information on support services for students beyond normal working hours should also be more readily available. For example, helpline support services such as the student run Nightline programme can be helpful for students during busy times.

5.5.2 Attitudes towards students

Expressing concerns about quality of care on placement was another difficulty described by participants in this study. In a recent review into raising concerns commissioned by the UK government (Francis 2015), it was noted that students can play an important role in ensuring acceptable levels of patient care in the NHS. It is essential that these recommendations are implemented in NHS workplaces taking on students to help protect students who speak up. The report recommends that in placements that do not have clear policies in place, the regulator should consider removing its validation from the course (Francis, 2015).

In addition to this, policies at university institutions should be reviewed to help protect students who speak up. This protection should include the possibility of the student changing placement if need be, without the fear of penalty regarding their progress on the course. It could also be beneficial for students to be educated on the issues surrounding raising concerns in healthcare at an early stage of their nursing education. Awareness around such issues can help the students understand the need for open and transparent practices on placements, the protection they should expect to receive should they raise a concern, and go some way to encouraging the future generation of nurses to speak out at work without fear.

It should be noted, however, that it can be difficult for students to judge whether correct procedures are being followed on placements and a lack of experience may contribute to them jumping to the wrong conclusions. One way to help with these issues is to encourage students to ask enquiring questions when in doubt. For example, asking questions such as 'I thought you were meant to do it this way, why is it this way?' and talking it through with the staff members concerned can help clarify to the student why they are doing a particular task in a certain way. This may resolve the issue, or confirm to the student that incorrect procedures are being followed. Either way, approaching such situations in a manner that suggests they are trying to learn, rather than complaining, can help them avoid conflict. Educating students about raising concerns should therefore be a key learning outcome in nursing programmes moving forward. A small group seminar might be the best way to achieve this, as such informal settings can encourage student involvement in discussions around sensitive issues (Dennick & Exley, 2004).

Due to the increasing number of students in nursing education, it is important that staff members are frequently reminded of the value students can bring to the

workplace. Participants described how being a student restricted the tasks they could perform on placement and this would often cause issues with other members of staff *"they will quite often ask you to escort patients on your own who are under section, and we're not allowed to do that as a student"*. This highlights the necessity of staff being aware of what tasks can and cannot be delegated to students. The communication of this information is the responsibility of the management team on wards that take on students, and they should ensure any new members of staff are properly informed. Making staff aware of the boundaries for students will decrease the likelihood of difficult situations arising, and taking these steps can help improve relations between students and staff.

5.5.3 Stress and Coping

In line with other research on mental health nursing students (Tully 2004; Nolan & Ryan, 2008), many participants disclosed feeling highly stressed with negative consequences for their mental health. This was more common in younger participants with less experience, who described the high levels of stress they experienced during placements. It is therefore recommended that educators pay particular attention to the allocation of placements early on, with priority given to the younger students who may be best suited to the more established placements with higher resources available. This would ensure appropriate support is given in those early placements for these students. Once more experience is gained however, and beyond first year, no such concessions need to exist. It is important that students of all ages develop resilience against the nature of mental health work. However, a more balanced and considerate approach to the younger population of mental health nursing students when allocating those early placements could be helpful.

It is important to investigate the coping strategies used by mental health nursing students to help them cope with the training course. Many participants in this study described how alcohol was used to reduce stress of the course, suggesting this could be a particularly important coping strategy for them. This supports the findings in the chapters 3 and 4, and suggests health promotion and prevention efforts with a specific focus on alcohol could be considered by training providers.

The evidence in this thesis suggests nursing programmes could benefit from including brief alcohol interventions in the nursing curricula. A recent meta-analysis of randomised control trials of 62 alcohol interventions in students showed that the interventions which included personalised feedback, moderation strategies, expectancy challenge, identification of risky situations and goal-setting were the most effective in preventing alcohol misuse (Scott-Sheldon et al., 2014). The authors recommended screening students for alcohol use, and suggested conducting this assessment electronically, using a brief measurement tool to minimize the burden on institutions and students. Such an assessment could easily be nested within a broader questionnaire measuring the students' quality of life, such as the WPQ.

The more structured questions described in the initial research protocol (table 5.2) were designed as a template, and the semi-structured nature of the interviews allowed flexibility for the researcher. However, it could be argued that starting data collection with a number of structured questions such as these may have had some impact on the themes that emerged in the qualitative work. We had a relatively small sample (n=12) and therefore analysis was focused on individual perceptions of stress in nurse training, rather than providing a broader social-structural analysis. This makes it difficult to generalise beyond the specific training programme from where the sample was drawn. However, we do claim a broader relevance for this study, in that our

findings are consistent with research drawing from larger sample sizes, such as those identified throughout this chapter.

5.5.4 Conclusions

As the stressors identified in this study are consistent with international findings, the findings can also be useful for clinical practitioners in other countries. For example, Hamdan-Mansour et al. (2011) examined the experiences of Jordanian mental health nurses and found that conflict with other professionals was the one of the most frequently reported stressors for this group. The recommendations given here in relation to improving relations between staff and students are therefore clearly applicable and potentially useful for educators in other countries. This is also the case for many of the other recommendations in this chapter. For example, a lack of staff in placement settings (George et al., 2012, Ebadi & Khalili, 2014), barriers to accessing support (Reeve et al., 2013, Harris et al., 2015), and expressing concerns (Jackson et al., 2014) are all issues faced by nursing programmes worldwide.

Phase 3

Stress and mental health in trainee clinical psychologists

Chapter 6: A longitudinal study of stress and mental health in a sample of trainee clinical psychologists

6.1 Objectives

This chapter adopts the multi-dimensional approach to investigate stress and mental health in trainee clinical psychologists using longitudinal research. Informed by the DRIVE model of stress, a baseline model was established and effects above and beyond this model are considered. Personality and coping variables are the specific focus of the investigation, as these variables have been largely neglected in the research literature.

6.2 Introduction

Few studies have focused on personality and coping in trainee clinical psychologists, with only two studies (Brooks et al., 2002; Kuyken et al., 2003) being identified in the review in chapter 2. As these factors are important in the stress process (e.g. Lazarus & Folkman, 1984; Mark & Smith, 2008), and for predicting stress and mental health outcomes in trainee clinical psychologists (as demonstrated in chapter 3), personality and coping will be the focus of this investigation. Investigating these factors could have important implications for the trainees (by reducing stress and improving wellbeing), and implications for clinical psychology stakeholders (by improving clinical psychology services).

6.3 Method

6.3.1 Participants and Procedures

At T1, a sample of 149 trainee clinical psychologists took part in the study. At T2, 133 of the same participants completed the same questionnaire, meaning we retained 89% of the participants from T1. Trainees on the South Wales course were approached during a day they were in the University for teaching, and completed the study in paper form. Trainees on four other UK DClinPsy courses were also distributed the questionnaire online. At T1, participants filled out the questionnaire in the middle of their first clinical placement of the 2014/2015 academic year. At T2, the trainees were at the end of the 2014/2015 academic year. A breakdown of the participants by training course is provided in table 6.1.

The mean age of the overall sample at T1 was 28.46 years (SD = 4.243, minimum 21 years, maximum 52 years). The majority were female (126, 84.6%), married or in a relationship (121, 81.3%) and of White ethnicity (143, 96%). In terms of year of training, 49 were in year one (32.9%), 55 were in year two (36.9%), and 45 were in their final year (30.2%). At T2, the mean age of the sample was 28.9 years (SD = 4.29, minimum 23 years, maximum 52 years). The majority were female (115, 77.2%), married or in a relationship (101, 75.9%) and of White ethnicity (128, 96.2%). In terms of their year of training, 41 were in year one (30.8%), 48 were in year two (36.1%), and 44 were in their final year (33.1%) of training.

As in the previous chapter, multiple imputation procedures were implemented to reduce any potential bias in only computing complete cases. None of the variables had more than 10% missing values, suggesting multiple imputation was a suitable method to deal with the missing values in the data set. Little's (1988) MCAR test was nonsignificant, indicating that the values were missing completely at random. The

Markov Chain Monte Carlo method was used to impute the values. Descriptive statistics are available in table 6.2.

The same procedures and measures as used in chapter 4 in the study with nursing students were adopted. Change scores and dichotomous variables (i.e. increase over time/decrease over time) for all the scales were created in a similar manner. Table 6.3 presents the results of the chi-square analyses with all IV's and mental health problems as the outcome. Backward logistic regression were undertaken to investigate an initial 'best fit' model for the sample. Demographic variables included in the analysis were sex, relationship status, ethnicity, age, training programme and year of training. The results for the baseline model are displayed in table 6.4. Interactions were included above and beyond this model, with a specific focus on the role of stressors, personality and coping in the prediction of mental health problems. The interactions considered are described in table 6.5.

Course	Total available sample at T1	Number of participants who took part at T1	% available sample that took part at T1	Total available sample at T2	Number of participants who took part at T2	% of available sample that took part at T2
South Wales	40	36	90%	36	35	97%
Birmingham	67	28	42%	28	24	86%
Kings College London	63	24	38%	24	21	88%
University College London	126	46	37%	46	41	89%
Teeside	42	15	36%	15	12	80%
Total	338	149	**44%**	149	133	**89%**

Table 6.1. T1 and T2 sample details including total available sample and sample size obtained.

	Time Point 1		Time Point 2		Possible
	M	SD	M	SD	range
Work resources	36.19	5.713	34.82	6.518	5-50
Job demands	16.41	5.235	17.27	5.507	3-30
Personal Stressors	11.31	6.236	11.83	6.589	4-40
Academic stressors	20.40	6.221	21.56	5.954	4-40
Clinical stressors	14.56	7.158	14.87	5.962	6-60
Lack of support on placement	13.65	6.158	13.84	5.185	4-40
Perceived job stress	18.34	4.433	18.71	5.452	3-30
Perceived life stress	8.42	4.161	8.36	4.586	2-20
Mental health	29.25	5.667	28.46	6.212	5-50
Weekday Alcohol	0.53	8.280	0.62	1.180	N.A.
Weekend Alcohol	2.02	2.069	2.30	2.642	N.A.
Total Alcohol	2.54	2.632	2.92	3.326	N.A
Physical health	9.81	3.107	9.72	3.211	2-20
Emotion-based coping	17.54	6.494	18.42	6.168	4-40
Social support coping	15.49	3.176	14.87	3.528	2-20
Positive personality traits	34.30	7.252	33.962	7.372	5-50

Table 6.2. *Means and standard deviations for the component scores.*

Outcome: Mental Health Problems	Decreased mental health problems n(%)	Increased mental health problems n(%)	*P value*
Increased resources	29(57)	22(43)	
Decreased resources	34(42)	48(58)	.084
Increased job demands	23(35)	43(65)	
Decreased job demands	40(60)	27(40)	.004
Increased personal stressors	20(36)	36(64)	
Decreased personal stressors	43(56)	34(44)	.022
Increased academic stressors	24(33)	48(67)	
Decreased academic stressors	39(64)	22(36)	<.001
Increased clinical stressors	37(44)	47(56)	
Decreased clinical stressors	26(53)	23(47)	.315
Increased lack of support on placement	32(44)	40(56)	
Decreased lack of support on placement	31(51)	30(49)	.463
Increased perceived life stress	34(45)	42(55)	
Decreased perceived life stress	29(51)	28(49)	.483
Increased perceived job stress	22(37)	37(63)	
Decreased perceived job stress	41(55)	33(44)	.038
Increased emotion-focused coping	35(45)	43(55)	
Decreased emotion-focused coping	28(51)	27(49)	.492
Increased social support coping	24(60)	16(40)	
Decreased social support coping	39(42)	54(58)	.056
Increased positive personality traits	42(61)	27(39)	
Decreased positive personality traits	21(33)	43(67)	.001
Increased weekday alcohol	52(46)	60(54)	
Decreased weekday alcohol	11(53)	10(48)	.616
Increased weekend alcohol	47(46)	56(54)	
Decreased weekend alcohol	16(53)	14(47)	.457
Increased total alcohol	20(40)	30(60)	
Decreased total alcohol	43(52)	40(48)	.187
Increased physical health	47(55)	39(45)	
Decreased physical health	16(34)	31(66)	.023

Table 6.3. *Associations between mental health problems and each of the components for the changes between T1 and T2*

Outcome: Mental Health Problems	OR	CI	*P*
Job Demands			
Decrease	1.00		
Increase	2.788	1.264-6.147	.011
Personal Stressors			
Decrease	1.00		
Increase	2.095	.949-4.623	.067
Perceived Life Stress			
Decrease	1.00		
Increase	1.955	.874-4.374	.102
Social Support Coping			
Increase	1.00		
Decrease	2.057	.878-4.817	.097
Positive Personality Traits			
Increase	1.00		
Decrease	2.874	1.309-6.309	.009
Physical Health			
Increase	1.00		
Decrease	2.467	1.067-5.701	.035

Table 6.4. *Backward logistic regression analysis: Final step of the analysis only.*

Outcome: Mental Health Problems	**OR**	**CI**	***P***
Job Demands * Positive Personality Traits	**7.125**	**2.714-18.706**	**<.001**
Job Demands * Emotion-Based Coping	1.404	.337-5.851	.641
Job Demands * Social Support Coping	**3.122**	**1.464-6.655**	**.003**
Academic Stressors * Positive Personality Traits	1.956	.440-8.683	.378
Academic Stressors * Emotion-Based Coping	2.976	.667-13.278	.153
Academic Stressors * Social Support Coping	.355	.067-1.880	.223
Clinical Stressors * Positive Personality Traits	.850	.193-3.741	.830
Clinical Stressors * Emotion-Based Coping	1.905	.441-8.228	.388
Clinical Stressors * Social Support Coping	**2.345**	**1.164-4.724**	**.017**
Personal Stressors * Positive Personality Traits	.536	.122-2.362	.410
Personal Stressors * Emotion-Based Coping	1.351	.321-5.681	.681
Personal Stressors * Social Support Coping	.310	.058-1.653	.170
Positive Personality Traits * Emotion-Based Coping	1.746	.411-.7420	.450
Positive Personality Traits * Social Support Coping	1.442	2.94-7.070	.651
Emotion-based coping * Social Support Coping	1.382	.689-2.775	.362

Table 6.5. *Interactions tested above and beyond the baseline model*

6.3.2 Interactions

Interactions were found between job demands and positive personality traits, job demands and social support coping, and clinical stressors and social support coping.

*6.3.3 Job Demands * Positive Personality Traits*

When job demands decreased, mental health was not significantly different regardless of the level of positive personality traits. However, when job demands increased, those with decreases in positive personality traits reported significantly more mental health problems. Figure 6.1 shows this relationship.

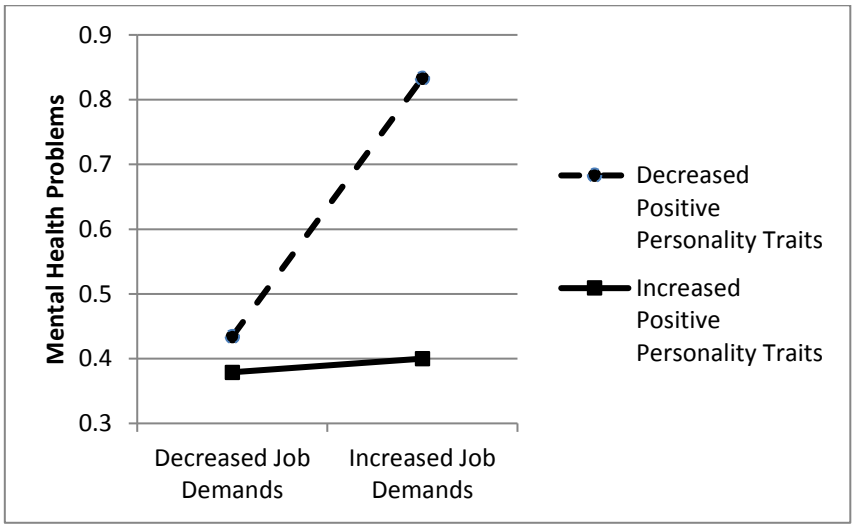

Figure 6.1. *Interaction between job demands and positive personality traits*

*6.3.4 Job Demands * Social Support Coping*

There was no difference in mental health when job demands decreased, regardless of the level of social support coping. However, when job demands increased, those with decreased social support had significantly more mental health problems. Figure 6.2 shows this relationship.

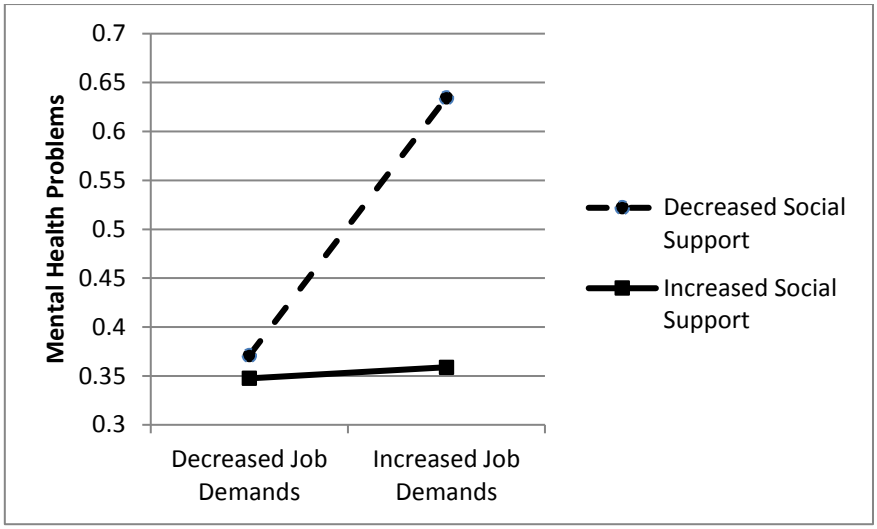

Figure 6.2. *Interaction between job demands and social support coping*

*6.3.5 Clinical Stressors * Social Support Coping*

At decreased clinical stressors the amount of reported mental health problems is no different regardless of the level of social support coping. At increased clinical stressors, those with increased social support have fewer mental health problems and those with decreased social support have more mental health problems. Figure 6.3 shows this relationship.

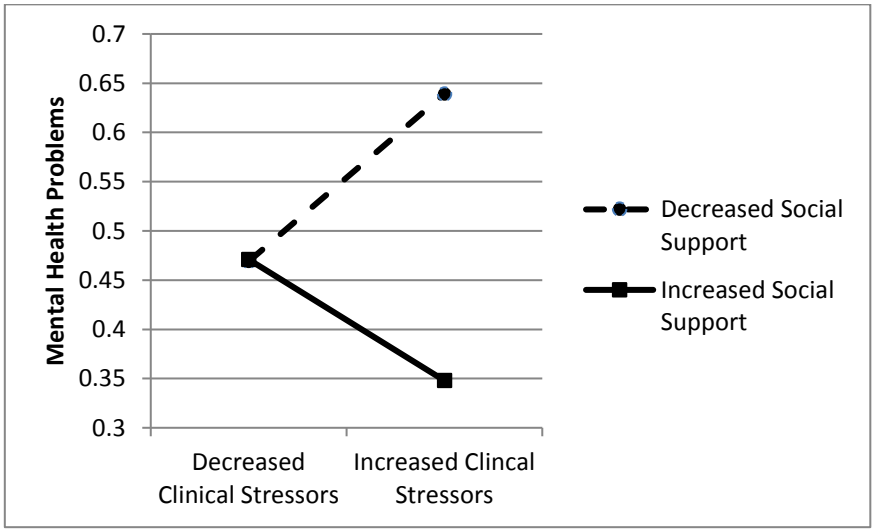

Figure 6.3. *Interaction between clinical stressors and social support coping*

6.3.6 Direct effects

The original baseline model (table 6.4) included a number of direct effects. Job demands (OR: 2.778), personal stressors (OR: 2.095), perceived life stress (OR: 1.995), social support coping (OR: 2.057), positive personality traits (OR: 2.874), and physical health (OR: 2.467) all predicted mental health problems over time.

6.3.7 Personality and coping at the Single Item Level

To investigate the relationships between personality, coping and mental health problems further, change scores were created at the single item level. Then, increase/decrease dichotomous variables were created in the same way as at the factor level, and these were included in the baseline model. Table 6.6 shows the significant single items. Direct effects were found for self-efficacy (OR: 4.115), seek social support (OR: 2.192) and neuroticism (OR: 2.220) over time.

Outcome: Mental Health Problems	**OR**	**CI**	***P***
Self Efficacy			
Increase	1.00		
Decrease	4.115	1.754-9.656	.001
Seek Social Support Coping			
Increase	1.00		
Decrease	2.192	1.033-4.650	.041
Neuroticism			
Decrease	1.00		
Increase	2.220	1.027-4.798	.043

Table 6.6. *Backward logistic regression analysis including the personality and coping single items: Final step of the analysis only*

Signficant interactions were found at the single item level between self-esteem and social support coping (OR: 5.737), and self-blame coping and social support coping (OR: 5.413).

*6.3.8 Self-esteem * Social support coping*

At decreased levels of self-esteem, mental health problems were the same regardless of the level of social support. At increased levels of self-esteem, those who reported increases in social support reported fewer mental health problems than those who decreased in social support (figure 6.4).

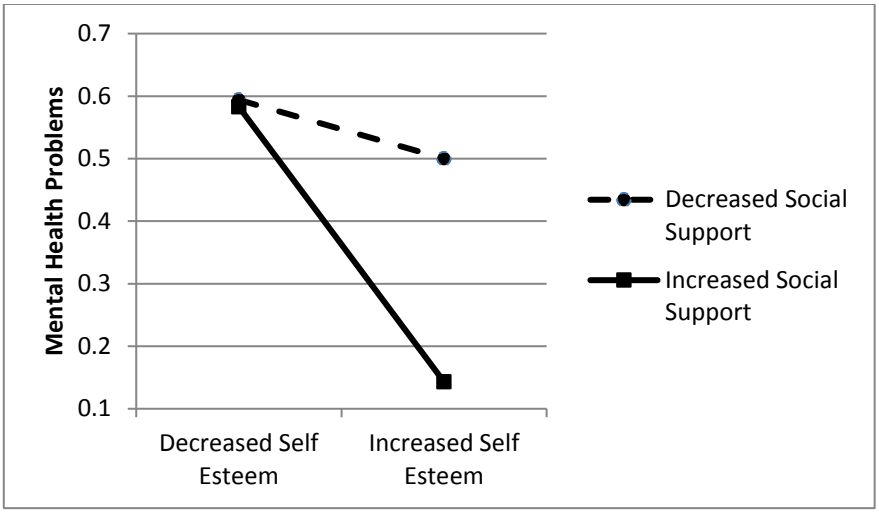

Figure 6.4. *Interaction between self-esteem and social support*

*6.3.9 Self-blame coping * Social support coping*

At decreased levels of social support, mental health problems were the same regardless of the level of self-blame. However, those who increased in social support and decreased in self-blame reported fewer mental health problems than those who increased in social support and increased in self-blame (figure 6.5).

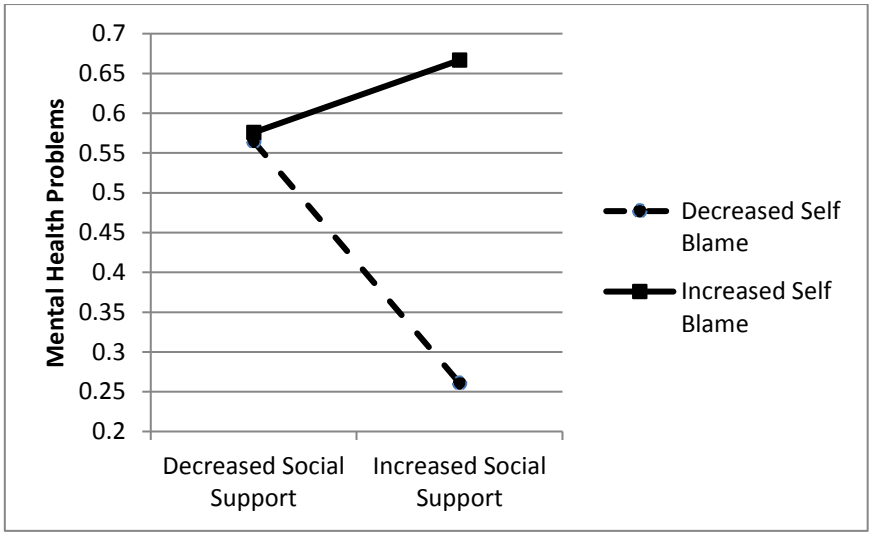

Figure 6.5. *Interaction between self-blame and social support*

6.3.10 Additive effects

Significant differences in the change between 'increased' and 'decreased' groups on the full dimensional scores were explored. In order to correct for alpha inflation due to conducting multiple tests, Bonferroni correction was used. Based on 26 tests, a p value of < .002 was considered to be statistically significant. The results are described in table 6.7. It can be seen from the table that all variables were significant at p<.001.

	Time point 1		Time point 2		P value
	Mean	SD	Mean	SD	
Work Resources Increase Group	33.82	5.39	38.05	5.01	<.001
Work Resources Decrease Group	37.65	5.44	32.80	6.56	<.001
Job Demands Increased Group	14.81	5.20	19.80	5.31	<.001
Job Demands Decreased Group	17.98	4.81	14.78	4.48	<.001
Personal Stressors Increased Group	9.82	5.12	15.00	6.69	<.001
Personal Stressors Decreased Group	12.27	6.80	9.53	5.50	<.001
Academic Stressors Increased Group	18.72	6.08	23.83	5.56	<.001
Academic Stressors Decreased Group	22.37	5.83	18.89	5.28	<.001
Clinical Stressors Increased Group	11.52	4.40	15.56	5.52	<.001
Clinical Stressors Decreased Group	19.75	7.98	13.69	6.54	<.001
Lack of Support on Placement Increased	10.51	3.82	14.76	5.34	<.001
Lack of Support on Placement Decreased	17.36	6.35	12.75	4.82	<.001
Perceived Job Stress Increased Group	16.83	4.61	20.90	4.10	<.001
Perceived Job Stress Decreased Group	19.55	3.92	16.96	4.12	<.001
Perceived Life Stress Increased Group	7.02	3.38	9.35	4.73	<.001
Perceived Life Stress Decreased Group	10.29	4.39	7.04	4.05	<.001
Mental Health Problems Increased Group	27.67	5.57	30.94	4.89	<.001
Mental Health Problems Decreased Group	30.67	5.40	26.22	6.44	<.001
Physical Health Increased Group	9.19	3.24	10.53	3.12	<.001
Physical Health Decreased Group	10.94	2.49	8.25	2.85	<.001
Emotion-Focused Coping Increased Group	14.76	5.73	19.21	6.52	<.001
Emotion-Focused Coping Decreased	21.47	5.41	17.31	5.50	<.001
Social Support Coping Increased Group	13.80	2.86	16.30	2.89	<.001
Social Support Coping Decreased Group	16.21	3.04	14.26	3.61	<.001
Positive Personality Traits Increased	33.26	7.96	36.07	7.17	<.001
Positive Personality Traits Decreased	35.41	6.26	31.66	6.94	<.001

Table 6.7 *Change between increased and decreased groups on the full dimensional scores*

The dimensions that showed a significant difference on the full dimensional scores were then summed together to compute the global NOF score and this score was split into tertiles. As all the dimensions were significant, all the variables met the criteria for inclusion in the NOF analyses.

Logistic regression was used to assess the associations between the NOF score and stress/mental health outcomes. Table 6.9 shows dose-response relationships between increases in the NOF score and increases in stress and mental health problems. Participants in the highest tertile were almost six times more likely to report increased academic stress, over four times more likely to report increased clinical stress, and over 15 times more likely to report mental health problems.

Outcome: Academic Stress	**OR**	**95% CI**	**p**
Lowest tertile	1.000		
Middle tertile	3.111	1.163-8.325	.024
Highest tertile	5.926	2.370-14.815	<.001
Outcome: Clinical Stress			
Lowest tertile	1.000		
Middle tertile	1.496	.532-4.205	.445
Highest tertile	4.356	1.754-10.817	.002
Outcome: Mental Health Problems			
Lowest tertile	1.000		
Middle tertile	4.019	1.589-10.169	.003
Highest tertile	15.556	5.356-45.179	<.001

Table 6.8. *Logistic regression (enter method) for the relationship between NOF and stress and mental health outcomes.*

Mean scores for the global NOF score were then computed and the results are in figure 6.6. It can be seen that year 1 (M = 7.02) was the year of training that saw more negative circumstances being reported. This dipped in year 2 (M = 6.38) before rising again in year 3 (M = 6.93).

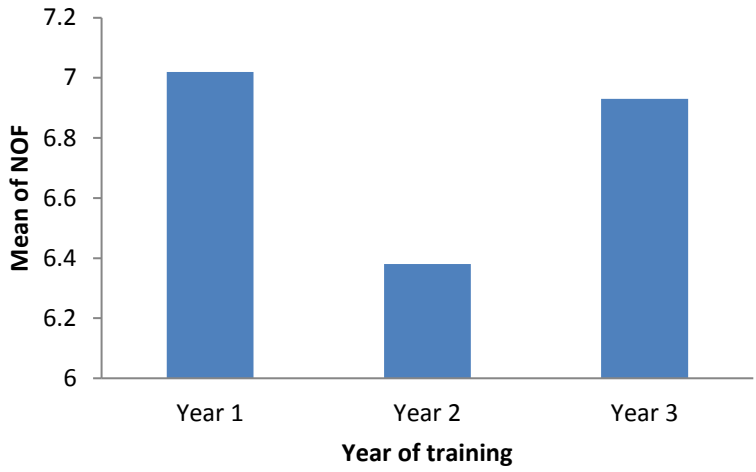

Figure 6.6. *Means of global NOF score by year of training*

Summary of key findings

Multi-factor level findings

- A dose-response relationship was found between the global NOF score and the outcomes academic stress, clinical stress and mental health problems.
- Year 1 trainees reported the most increases in negative circumstances over the course of the year. This dipped in year 2, before, in year 3, returning to similar levels as were seen in year 1.

Factor level findings

- Direct effects on mental health over time included job demands, personal stressors, perceived life stress, social support coping, positive personality traits, and physical health.
- Interactions were found between job demands and personality, job demands and social support, and clinical stressors and social support in the prediction of mental health problems over time.

Single-item level findings

- Direct effects on mental health over time included self-efficacy, seek social support and neuroticism.
- Interaction effects were found between self-esteem and social support coping, and self-blame coping and social support coping in the prediction of mental health problems.

6.4 Discussion

The multi-factor level findings suggested dose-response relationships between more negative circumstances and greater stress and mental health problems over time. It was shown that, according to year of training, a u-shape relationship was found for amount of negative circumstances using the NOF score. The greater increases in negative circumstances over the course of first year could be explained by the trainees simply having fewer negative circumstances at the beginning of training. That is, at the earlier stages of training, the trainees are still in the 'honeymoon period' and enjoying the fact they have made it onto the course. However, by the end of year one (the second time point), it is not surprising that this initial excitement has worn off and trainees find themselves with increases in negative circumstances. For year 2 trainees, this could steady off in terms of increases across the year with the trainees, in general, being exposed to a similar number of negative circumstances as they were near the beginning of year 2. However, between the start and end of year 3 the amount of negative circumstances is likely to increase. Indeed, this is the 'final push' in training, with tougher clinical placements, more responsibilities, and a doctoral thesis for the trainees to complete.

The dimensions of the stress process considered in this study were personality and coping, as very few previous studies have focused on these dimensions in trainee clinical psychologists. At the factor level, both personality and social support coping predicted mental health problems directly, and this was found to be the case above and beyond the baseline multi-dimensional model. In addition, both personality and social support interacted with job demands, and social support interacted with clinical stressors. At the single item level, the personality variables that were predictive of mental health were self-efficacy and neuroticism, and for coping, a direct effect of

seeking social support was found. These findings suggest that, at multiple dimensions of the stress process, personality and in particular social support coping strategies, are particularly important variables to consider when investigating mental health in trainees.

Similar findings have been found in other healthcare students. For example, social support is considered the most effective coping strategy in nursing students (Lo, 2002; Gibbons et al., 2008) and individual differences such as self-efficacy, self-esteem and neuroticism are considered important predictors of mental health over time (Deary et al., 2003; Watson et al., 2008). Interactions between self-blame and social support, and self-esteem and social support, were found in the present study, which could suggest that the usefulness of social support as a coping strategy might depend on the trainees' perceptions of their own self. That is, when participants increased in social support coping between the two time points, if they also engaged in less self-blame coping or improved in self-esteem, then mental health problems were significantly reduced.

6.4.1 Self-blame and social support

Research has shown that the more carers blame themselves, the less empowered they feel (Stillar et al., 2016). However, no research to date has focused on the relationship between self-blame and mental health in trainee clinical psychologists. In the present study, participants who increased in social support and decreased in self-blame reported the greatest positive improvements in their mental health over time. An explanation for this finding is that trainees whose mental health improved between the two time points might have talked to their social support networks about their feelings of self-blame. The support they received from these

interactions could have gone some way to reassuring the trainee that they should try not to blame themselves, and, as a consequence of this reassurance, seen their self-blame decrease and their mental health improve. In this example, social support can therefore be seen as a strategy to help reduce the negative effects of self-blame. However, although this seems the most rational explanation when analysing the current data, it is not necessarily the case that improvements in one area (e.g. more social support) resulted in improvements in the other (e.g. less self-blame) and it could instead be that general improvements in mental health resulted in participants engaging in more adaptive behaviours. However, as there was no direct relationship found between self-blame and mental health, the data is not supportive of this view. Instead, it appears that for reductions in self-blame to contribute to improvement in trainees' mental health, the level of a third variable, social support, was important.

6.4.2 Self-esteem and social support

It is also not completely clear whether self-esteem is a cause or a consequence of social support, or whether it is both. One view is that self-esteem leads people to actively develop and maintain positive social support networks (Marshall et al., 2014). For example, those with high self-esteem tend to believe they have a high social worth, and this belief might lead them to engage in behaviours that help build strong social support networks. However, a differing view is that social support improves self-esteem and gives people a greater sense of worth (Goodwin, Costa, & Adonu, 2004). That is, self-esteem might be improved as a consequence of being more socially connected or valued. Stinson et al. (2008) investigated the association between social bonds, self-esteem and health outcomes in university students. A longitudinal design was employed, with six data collection time points over a 10-week period. Lower self-esteem was predictive of poorer quality social bonds and poorer quality social bonds

predicted acute drops in self-esteem. Therefore, the authors suggested the relationships were reciprocal in nature, with both variables having the potential to influence one another.

Baumeister et al. (2003) argued that the emphasis on improving self-perceptions through self-esteem "boosting" interventions is not empirically supported. They argued that self-esteem has not been shown to consistently predict the quantity or quality of social interactions. However, Swann, Chang-Schneider, and McClarty (2007) contested that self-perception does matter, and that empirical research should be focused on developing interventions to help promote self-esteem. The present chapter supports the latter view, as self-esteem appeared to be generally beneficial to mental health at the single item, factor, and multi-factor levels.

What this study and previous studies have failed to address is how best to raise self-esteem. However, there are a number of suggestions in the literature that might be particularly relevant to the education of trainee clinical psychologists. For example, acceptance and commitment therapy (ACT) has shown to have positive improvements in how one perceives oneself (Smout et al., 2012), and could therefore be considered as a potentially useful intervention in future research. ACT attempts to teach people to distance themselves from, and let go of, negative self-concepts (Ciarrochi & Bailey, 2008), and this can result in these negative self-concepts having less of an impact on future social behaviours (Forman et al., 2007). In a similar vein to ACT, self-compassion interventions can also help people to treat themselves more kindly, accept their limitations, and therefore improve self-perceptions (Neff, 2011).

2.4.3 Personality

Increases in neuroticism across the two time points were found to predict mental health over time, further supporting the state-dependent component of this aspect of personality, and how it can be seen as a stress effect. As has been suggested in nursing students (e.g. Deary et al., 2003), it might be worthwhile administering personality questionnaires to trainees prior to their commencement onto a clinical psychology training course. However, this is likely to be a controversial approach and raises many ethical issues (Watson et al., 2008). Therefore, rather than suggesting training programmes screen potential trainees for a place on the course, it is proposed that courses use such data to aid trainee advisors and counsellors to better understand and support the trainees who seek out help. That is, understanding what 'makes a person tick' could be the first step in supporting them, and, therefore, would allow interventions to be of particular relevance, and more appropriately focused, for individual trainees.

6.4.4 Conclusion

Chapter 6 presented a multi-dimensional study focusing on trainee clinical psychologists' personality, coping style, and mental health. The best case scenario for trainees appears to be when social support is enhanced and there are improvements in their perceptions of self. A distinct focus and further emphasis on these variables throughout their clinical education could therefore see substantial benefits for trainees. Personality, along with other individual difference and coping variables, could be measured before trainees embark on clinical training. This could help support services provide tailored support for each individual trainee. A multi-dimensional approach, with single item questions and multiple constructs considered, might be a good way to achieve this.

Chapter 7: Trainee clinical psychologists: A thematic analysis of qualitative interviews

7.1 Objectives

This chapter investigates the stressors and coping strategies involved in pre-qualification clinical psychology using qualitative research. The main coping strategies reported by the trainees are also explored. This study was conducted in line with the rationale for conducting the qualitative study on mental health nursing students in chapter 5. That is, the study was undertaken due to the limitations of quantitative research and for what qualitative research can add to our knowledge about stress in this population.

7.2 Introduction

As demonstrated in chapter 2, there has been a distinct lack of published literature focusing on stress in trainee clinical psychologists internationally, and the majority of studies undertaken have been questionnaire-based studies. Therefore, this study adopts qualitative methods to investigate stress and coping in trainee clinical psychologists. To our knowledge, there are currently no published qualitative studies that consider stress and coping in trainee clinical psychologists. The Alternative Handbook (BPS, 2015) does include some qualitative data in its report, but this is limited to written responses to structured questions and therefore does not allow for a rich account of stress in trainees. A richer account of stress in trainee clinical psychologists is therefore needed.

The specific aims of this study are to consider:

1) What are the pre-qualification stressors reported by trainee clinical psychologists?

2) What are the coping strategies employed by the trainees to help them deal with these stressors?

7.3 Method

7.3.1 Participants

Semi-structured one-to-one interviews were conducted with 15 trainee clinical psychologists enrolled on the DClinPsy training course at Cardiff University. Recruitment involved purposive sampling, with the trainees being invited to interview via their university e-mail accounts. In line with principles of data saturation in qualitative research, interviews were terminated after n=15 interviews as the collection of new data did not provide any more useful information. Demographic information is available in table 7.1.

Sex	**Age range (mean)**	**Year of training (n)**	**Ethnicity (n)**
Females = 12 Males = 3	23-44 (M = 29)	Year 1 (n = 7) Year 2 (n = 5) Year 3 (n = 3)	White British (n = 15)

Table 7.1. *The participants demographic information.*

7.3.2 Procedure

The same general procedure used in the previous qualitative study focusing on mental health nursing students was employed (i.e. chapter 5). Specifically, the sample was recruited with purposive sampling through email correspondence and data saturation was the indicator for study completion. Interviews were audio recorded and lasted 45-60 minutes with open-ended questions being posed. Anonymous transcripts

were prepared, and ethical procedures around safeguarding were the same as in the previous study on nursing students.

7.3.3 Analysis

Thematic analysis was again chosen as an appropriate method due to its flexibility and because it allows grounded theory techniques to be incorporated in the study without the need for a “full-fat” grounded theory (Braun & Clarke, 2006). The same bottom-up and inductive approach (Strauss & Corbin, 1998) was taken to the analysis as previously described in chapter 5.

Research assistants were not involved in this study, so cross-validation was not possible through this route as was the case with nursing students. Instead, the criteria for validity and reliability in qualitative research, as outlined by Whittemore, Chase and Mandle (2001), were used. Whittemore et al. (2001) identified four criteria that are essential when evaluating qualitative research; these are credibility, authenticity, criticality and integrity.

Credibility refers to how well the results of the study truly reflect the experience of participants (Whittemore et al., 2001). In the present study, the identified themes were later discussed with those participants who had previously indicated a willingness to be involved in additional inquiry at a later date. This discussion was achieved through an email exchange. This allowed the researcher to clarify the findings further and, if the feedback questioned the conclusions, the themes were refined accordingly. All 15 of the participants indicated a willingness to cooperate in this additional stage. However, it was decided that two trainees from each cohort would be sufficient (total n = 6), and so these participants were selected at random from the total sample.

A reflective awareness of the researcher's preconceptions, whilst acknowledging the possibility of being surprised by the findings, was how the authenticity criteria were addressed. Upon completion of each interview, the researcher made brief field notes which identified the key points relating to each interview. These notes were later used to develop a reflective log, which summarised the initial interpretations developed during the interview. This log was referred to during data analysis.

For criticality and integrity, these two criteria refer to the possibility that a number of different interpretations could be made and this will largely depend on the previous knowledge and assumptions of the researcher (Whittemore et al., 2001). To address these criteria, an individual who had just completed their training reviewed the emerging themes and conducted credibility checks of the findings. Further, a colleague within the university but external to the project and the clinical psychology department reviewed the transcripts. Therefore, on the basis of the aforementioned criteria, the present results are rigorously defensible not only in terms of the researcher's interpretation but also in terms of the participants in the study and others.

Due to the focus of this study being on the participants' pre-qualification experiences, the questions in the interview schedule asked participants about their experiences from undergraduate level up until the present day. To give an idea of the questions posed to participants, the initial interview schedule is described in table 7.2. However, as in chapter 5, and in line with a ground theory framework, participant responses in earlier interviews informed new questions to be asked in future interviews.

Introductory questions
1. What made you want to become a clinical psychologist? 2. Were there any other career paths you considered other than clinical psychology?
Developmental questions – undergraduate experiences to present day
3. Did you do your undergraduate degree in psychology? 4. Where did you do your undergraduate degree? 5. How was your undergraduate experience for you? 6. What, if anything, did you find particularly stressful about your undergraduate experience? 7. What did you do career wise immediately after graduation? (e.g. was a masters programme undertaken? Did you find work?) 8. How was this experience for you? 9. What, if anything, did you find particularly stressful about this experience? 10. What did you do after this? Different job/educational opportunity? 11. How was this experience for you? 12. What, if anything, did you find particularly stressful about this experience? ** The researcher would then repeat this cycle (Q10-12) of finding out about the participants experiences during the different stages of their career up until they got onto the DClinPsy course** 13. How many times did you apply for the course? 14. How were these experiences for you? 15. What, if anything, did you find particularly stressful about this experience?
Questions related to experiences on the DClinPsy course
16. How was/is your first year of training? 17. How were the placements during this year? 18. How was the academic side of the course during this year? 19. How was/is your second year of training? (if applicable) 20. Repeat questions 17 and 18 here. 21. How was/is your third year of training? (if applicable) 22. Repeat questions 17 and 18 here. 23. Is there anything specific about the stage of training you are currently at which is particularly stressful? 24. Is the training harder or easier than you expected so far? 25. Overall, do you feel like you belong or 'fit in' on the course? 26. Overall, do you feel like you fit in academically? 27. Overall, do you feel like you fit in on placements? 28. Do you feel more like a student or an employee of the NHS? 29. Have you ever been close to giving up on your training? If so, why were you thinking of giving up? What made you stay? 30. Do you think the training has impacted your personal life? Or, the other way round, has your personal life interfered with the course in any way? 31. How are the support systems on the course? Have you used any? If so, how did you find these experiences? 32. Do you feel like any of your experiences have been particularly important in shaping the person/clinician you have become? 33. What coping strategies do you use? 34. Is there anything that hasn't been mentioned, related to training or anything else, which you think might be relevant to the topic of this study? Specifically, to do with the topic of stress?

Table 7.2*. The initial interview schedule*

7.4 Results

Three themes emerged from the analysis. These were 1) application procedures, 2) personal and professional relationships, and 3) commonalities in personal history, experiences and self-reported personality characteristics.

7.4.1 Theme 1: Application procedures

The initial application process and gaining a place on the course in the first place was reported as being one of the most stressful aspects of pre-qualification clinical psychology. Upon her fourth time of applying, one trainee described the lead up to her interview as follows:

> Participant 11: *I guess I thought by that point I really have to fight for my place and I kind of really realised how competitive it was and that I couldn't let anything slip. Like, I couldn't show signs that they wouldn't want me on the course, so it felt like a huge pressure beforehand and I was really nervous about doing it.*

An often-cited pressure for individuals applying for training was the lack of job security from their assistant psychologist role. Indeed, a high number of applicants for clinical training will often be working on a 12-month assistant psychologist/research assistant contract, which can often expire around the time of their application for clinical training.

> Participant 7: *I'd got the idea in my head that if I don't get on then what am I going to do? You know, it's going to be another year, I need to find another job because this one might come to an end and I started to get a bit stressed out. So that was the most anxiety provoking bit I think, waiting for that letter to come through.*

However, the trainees recognised that they themselves brought on a lot of their stress

during the application process. Their determination to get on to the course was a contributing factor.

> Participant 13: *I am aware that I put a lot of stress on myself. And so, I would imagine that I was quite a big part of that pressure, or self-pressure… Applying for any job is stressful, but for me, the importance of getting on this course was probably the single most important thing I'll have to do again in my life, and, yea, that was definitely my mind set at the time.*

7.4.2 Theme 2: Social and professional relationships

The second theme describes the social and professional relationships that the trainees were engaged in. Participants frequently discussed their exchanges with others in relation to stress and/or support. Specifically, trainees viewed a number of their interactions with others as a source of stress while other interactions were viewed as a source of support.

7.4.2.1 Supervisor/trainee relationship

Trainees described how the relationship with their supervisor could either increase or decrease their stress levels on the course. Helpful contributions included the supervisor being seen as a source of support.

> Participant 7: *She was always available for lots of discussion around things, so I felt really supported.*

However, trainees reported that placements were more stressful when this support was unavailable from their supervisor.

> Participant 12: *I found my child placement very difficult because my supervisor*

was so busy.

Negative offerings to stress levels included the pressure to get on with the supervisor. Trainees would often feel vulnerable around their supervisor, as their progress largely depended on their opinions of them.

> Participant 11: *You feel quite vulnerable as a trainee because they've got all the power in that they can pass or fail you.*

7.4.2.2 Client/trainee relationship

The client relationship gave the trainees a sense of purpose in their work. Trainees often described their relationships with clients as the highest source of reward.

> Participant 9: *It's really rewarding, seeing someone who had a lot of difficulties in their life and then at the end of the placement to see how much happier they were.*

However, the trainees also described how the relationship with clients could be a significant source of stress. A strong sense of responsibility towards their clients provoked worries in their dealings with them, and increased self-doubt.

> Participant 2: *With therapy it almost seems as though someone wants you to think their life is in your hands sometimes… It's having such an impact in changing their life that it does make me think about what I do and how I do it.*

First year trainees described how they felt unprepared the first time they engaged in a particular therapy with a client, provoking high levels of stress.

> Participant 6: *You do have a bit of teaching, but nothing the course could do in those six weeks is going to prepare you for the reality of going into a room with*

someone and starting a therapy you've never had experience with before and, yea, I think that's been quite difficult, the level of responsibility you have.

Trainees placed additional workload upon themselves to over compensate for their perceived lack of experience.

Participant 3: *I think my supervisor used the word over-diligent because I was going home and reading loads of books. But I thought, oh god, these people have been waiting on a waiting list for such a long time and then they kind of, in the beginning it did feel like they were almost like "oh no, I've been given the trainee" and I don't think the clients saw it like that at all, but I think I felt that.*

7.4.2.3 Cohort/trainee relationship

The trainees' relationships with their cohort could also help reduce stress on the course. A sense of getting through the course together was evident across the transcripts.

Participant 9: *It's been really good to kind of share our experiences and go through this together.*

However, a negative offering to stress levels was the trainees seeing their peers as a source of competition.

Participant 8: *It's interesting, you're all kind of sizing each other up.*

This sense of competitiveness with their peers was coupled with worries of not being competent enough compared to other trainees.

Participant 9: *I remember thinking, "how can I match these people?"*

7.4.2.4 External support networks

Support networks external to the course were deemed as particularly important to the trainees. Members of their family, friends and partners were often mentioned as a source of support at busy times.

> Participant 10: *The fact is I spend a lot of my time working on weekends and evenings, so we have less time to do things for ourselves as a couple... And she's very accepting of that and I think it's a credit to her because without that, without that support from her, then I don't know what I would do.*

However, for some trainees there was additional strain in these relationships. A number of trainees described how the people closest to them would be glad to see the back of the course.

> Participant 15: *I think he (her partner) can't wait for it to be over, and yea, I think most of my friends probably can't wait for it to be over too.*

The trainees described how they would often have to stay over in accommodation when allocated an away placement. This resulted in a lack of support and added to their stress on placement.

> Participant 11: *I was on a child placement so I was dealing with families who were in abusive situations and in a lot of distress. I think one of the ways with managing that is when you go home and just being able to go into your own environment and see friends and family and things, and not being able to do that was really difficult.*

Interestingly, trainees described how they themselves have always had friends and family turn to them in times of need. Many participants took pride in their

approachability.

> Participant 10: *I've always been somebody where people have come to talk to me about their problems… That's always been my role in some ways; people have always come to me for advice.*

Trainees reported that friends and family would now, more than ever, see them as a source of support. Trainees described how they could easily find themselves taking on the role of a psychologist in their social networks.

> Participant 12: *Someone in my family was diagnosed with depression and I think I found myself kind of taking on the role offering them alternatives to the kind of anti-depressants that kind of, rather than the medical model that they were being fed by the GP.*

However, trainees would often express that they would do their best to avoid becoming a therapist outside of work.

> Participant 6: *I think it's a really dangerous territory and people can start to want to use you a bit like a therapist. Friends and things start to ask your advice and I think I just try and keep it the same kind of advice I would have given them before.*

7.4.2.5 NHS staff/trainee relationship

Working with other NHS staff was an often-cited source of stress for trainees.

> Participant 7: *More often than not if I've had a stressful day it's more about the people I work with. Like, more about other members of staff and systems that tends to frustrate me.*

Colleagues not understanding or recognising the role of a trainee was common. In particular, poor role definition within the team often resulted in trainees feeling unappreciated or undervalued. Participants attributed this to the 'trainee' label.

> Participant 13: *I think it's the "trainee" label on the front of it that people just don't understand what it is. One girl from our year had one of the nurses say to her "oh, did you know we've got an assistant psychologist in our team? You should go and chat to her and find out how she got her job, maybe she can help you along." And she was just like "oh, ok then!" (laughs). So I just think people don't understand what you are, because the whole process of training to be a psychologist is so alien to most people that I don't know why people would understand that you go do your undergraduate, then you go have a job, then you go back to university. So if anything, you're perceived as lower than an assistant by most people.*

Participants described how colleagues could become irritated if they found out that trainees were on a higher wage band than them.

> Participant 15: *It could become a bit of an issue for some people, that the trainee was getting more money than them whilst having less responsibility. Sometimes people could be really funny about that.*

The changes in placements, and changes in working relationships, were frequently reported as stressful for the trainees. A constant feeling of uncertainty was mentioned by participants during the early stages of a new placement.

> Participant 10: *You've got the change in placement, so the physical change in placements and what that system and team is designed like and how it works.*

So you've got, from admin processes being quite different, the set up being quite different, the relationships being quite different. You've then got your supervisor who is new and you're not quite sure how they might respond to who you are and how you respond to them and their style. So you've got to develop that new relationship, you've also got the clients which are new, with different issues which are new and how they fit within the new system with a new supervisor and your new fresh relationship. So that's quite a demand, and that requires a lot of engagement, and that, over time, is tiring.

7.4.3 Theme 3: Commonalities in personal history, experiences and self-reported personality characteristics.

The third theme identified a number of commonalities in the trainees' backgrounds, experiences and self-reported personality characteristics. The trainees described how their own or a significant others psychiatric history had led them to be interested in psychology.

Participant 5: *We've had quite a lot of mental health in my family and things like that so I guess from that side of things it has been quite a bit of background, and yea, it gives you a bit of an insight. I think a lot of people find psychology quite interesting but then if you've seen it first-hand then it gives it a personal edge.*

This trainee described how discussions with her peers had led her to the conclusion that a high number of psychologists have had similar experiences.

Participant 5: *I think it's the nature of it. Sometimes people who come into psychology have had like past stuff that's happened and that's led them to*

> *psychology, in a similar way to me but more like traumatic stuff that's happened to them, or they've had drug and alcohol stuff that's going on with them.*

Trainees described how they believed these experiences had increased their empathy towards clients. However, it was also acknowledged that these experiences could increase the stress of training.

> Participant 15: *I think the experiences I've had with my sister definitely make me more empathetic. Yea, I think I'm more hardwired than most people to really try and make a difference to people in similar situations to her. It's definitely changed who I am as a person, and what I want to achieve in my career… I think overall that's a positive thing, but it can of course make some things more difficult. Like, sometimes you can see and hear things that are a bit too close to home.*

Trainees reported that at times they felt as though they have become consumed by psychology. Specifically, that training has led them to over-analyse everything.

> Participant 1: *I think there are some times when I think "argh if I could just look at something like a normal person rather than analysing or fitting it to some theory!"*

A number of trainees described how this "side-effect" of studying psychology was difficult to switch off at times.

> Participant 10: *At this stage I find it more I have to actively intervene to sort of, you know, that's it, I'm not at work now, and I'm not paid for this. So yea, trying to shut that down is difficult.*

Another trainee attributed this change to the reflective practice that is encouraged in

the profession.

> Participant 3: *My parents were having a little bicker the other evening and I came in as the diplomat saying "oh I can understand where you're coming from, but I also see where you're coming from" and they were like "oh god, she's got her psychology head on." So I suppose other people see you as changing a lot more than perhaps you identify yourself, but I do think it does make you, because of all the reflection and things you have to do and on placement you're frequently asked to reflect on your practice and what different emotions people bring up in you. So I do think you become a lot more analytic or self-aware perhaps.*

However, other trainees described how too much reflective thought can be exhausting.

> Participant 5: *Sometimes psychology can be a bit exhausting and that kind of feeling that everything you say, the people that you're with are kind of going "oh what's that about?" and "what are you feeling?" and "bla bla bla" and that can be a bit exhausting. It's just too intense, like being in a little psychological pressure cooker sometimes!*

Table 7.3 (theme 1), table 7.4 (theme 2) and table 7.5 (theme 3) show the development of the themes.

CONCEPT/IDEA	SUBTHEME	THEME
Many participants reported having to fight to get a place on the course. Sacrifices had to be made.	Competitive nature of getting on the course	Application Procedures
Hard work to get on the course. Spent years gaining the required qualifications and experiences.		
Many reported rejection, which required re-applying the following year.		
Motivation to get on the course a driving factor.	Self-pressure to get on the course	
Participants reported that it is their career ambition to become a clinical psychologist. This increased the pressure to get on the course.		
Participants reported that they had “put all their eggs in one basket” in terms of their career choice. Most reported they hadn’t considered other career paths.		
Many reported being on short-term contracts while applying for clinical training.	Stress involved with short-term psychology contracts	
Participants reported uncertainty around next employment if they were not successful this time around.		

Table 7.3 The development of theme 1, application procedures. From left to right shows the concept/idea, the subtheme and superordinate theme.

CONCEPT/IDEA	SUBTHEME	THEME
Supervisors were seen as an important source of support	Supervisor/trainee relationship	Social and Professional Relationships
A lack of appropriate support from supervisors made placements particularly difficult and stressful		
Pressure to get on with the supervisor		
Power of the supervisor – the trainees progress on the course depends on the supervisors opinion of them		
Witnessing improvements in their clients was often seen as the highest source of reward for the trainees	Client/trainee relationship	
A strong sense of responsibility towards clients provoked worries in their dealings with them and increased the self-doubt experienced by the trainees		
Carrying out newly learned therapies on clients provoked high levels of stress. This led to trainees over compensating by taking on additional reading and workload to make up for their perceived lack of experience		
A close relationship with the cohort helps to deal with the stresses involved in the course	Cohort/trainee relationship	
Participants described how although trainees try to support each other, there appears to be limits to that support due to an underlying competitiveness among peers.		

Trainees worry that they would not appear competent enough in comparison to the other trainees		Social and Professional Relationships
Support from family, friends and partners was seen as essential during busy times	External support networks	
Relationships outside the course are put under strain when demands are high		
Away placements are seen as being particularly tough due to being out of the home environment		
Friends and family now appear to come to the trainees for advice more often now they are on the course.		
Relationships with members of staff on placement	NHS staff/trainee relationship	
NHS systems were an often-cited source of stress for the trainees		
Poor role definition in the team		
Being perceived as a "trainee" or a "psychology student" meant participants felt undervalued		

Table 7.4 The development of theme 2, social and professional relationships. From left to right shows the concept/idea, the subtheme and superordinate theme.

CONCEPT/IDEA	SUBTHEME	THEME
Participants reported how their own mental health history had led them to be interested in psychology and pursuit this career path	Personal experiences of mental health and their pursuit of clinical psychology	Commonalities in personal history, experiences and self-reported personality characteristics
Participants reported how their families mental health history had led them to be interested in psychology and pursuit this career path		
Discussions with other trainees led participants to conclude that a high number of psychologists have some personal experience with mental health issues		
Participants reported how their personal experiences were a motivation to help others	Impact of personal experiences on practice	
Trainees believed that having personal experiences of mental health could help increase their empathy towards clients		
Trainees acknowledged that personal experiences could increase the stress of training		
Over analysing every situation or event in their lives from a psychological perspective	Becoming consumed by psychology	
Psychology can be “exhausting” and conversations with colleagues can be too intense at times		
Reflective practice has resulted in noticeable increases in self-awareness		
Difficulties switching off from work		

Table 7.5 The development of theme 3, commonalities in personal history, experiences and self-reported personality characteristics. From left to right shows the concept/idea, the subtheme and superordinate theme.

Summary of key findings

- The application process was described as being one the most stressful aspects of pre-qualification clinical training.
- Much of the stress of applying for the course was related to self-pressure and the amount of commitment they had put in to getting on the course.
- Professional self-doubt was reported by the participants, in particular in relation to dealing with clients.
- The "trainee" label was seen as being problematic due to colleagues not fully understanding the role or the high level of training being undertaken.
- Social support was central to the trainees' abilities to cope with the demands of the course.
- Personal experiences and personality variables were discussed as being major factors in the trainees' decision to pursue clinical psychology. The trainees perceived these factors as having both positive and negative effects on their clinical work.

7.5 Discussion

This study provides insight into stress and coping in pre-qualification clinical psychology as described by trainees on a DClinPsy training course in the UK. To provide a context for the study, it is important to examine the findings in relation to the existing research literature.

7.5.1 Application procedures

The current perception of many individuals applying for clinical psychology is one of great fear and anxiety. Indeed, the training programme is often placed on a pedestal, is seen as the "holy grail" of psychology training, and often implicitly or explicitly promotes the idea that only the few can survive (O'Shea & Byrne, 2010). The possibility that a high number of promising early-career psychologists may avoid pursuing a career in the clinical domain should be taken into consideration by training providers. More information for, and further engagement with, undergraduate

psychology students could be one way to help change this perception among future candidates.

A number of books and articles have been published to give advice to clinical psychology applicants (e.g. Knight, 2002; Phillips, Hatton, & Gray, 2004; Papworth, 2004; Papworth 2007). These are useful resources that can help reduce the stress of applying for training. However, are there other ways applicants can be supported? A minimum expectation of applicants to clinical training is that they have completed a BPS accredited psychology degree. Therefore, focusing interventions at an undergraduate audience could, even at such an early stage, be a useful endeavour. Indeed, the incorporation of self-care strategies is recommended at the earliest opportunity in clinical training (Christopher & Maris, 2010), and it has been suggested that an ethos of career-long learning can take the pressure off the three years of pre-qualification training (Kuyken et al., 2003). Therefore, there is no reason why self-care cannot be incorporated even earlier in the psychology learner's career.

Integrating mindfulness-based courses into the psychology undergraduate curricula is one option. There is increasing evidence that mindfulness-based courses can reduce anxiety and teach new ways to manage stress (Grossman et al., 2004; Eberth & Sedlmeier, 2012). De Vibe et al. (2013) found that female psychology students experienced significant positive improvements in mental distress, study stress, and subjective well-being after participating in a mindfulness-based stress reduction (MBSR) programme. Furthermore, Shapiro et al. (2005) found that healthcare professionals who participated in an MBSR programme reported increases in self-compassion and quality of life.

A good leader in this regard is Bangor University, who has offered their undergraduate psychology students a credited module in mindfulness-based

approaches for a number of years. This module involves the students actively participating in an MBSR course, therefore gaining the benefits of mindfulness practice while they learn. Clinical psychology trainers, who are normally associated with a university institution, are in an ideal position to work with undergraduate teaching staff to make such enterprises a possibility. Equipping psychology students with self-care tools early in their psychology education is likely to be helpful not only for future clinical psychology applicants, but also to the psychology workforce more generally.

7.5.2 Professional self-doubt

Previous research has shown that professional self-doubt is a significant stressor for both qualified and trainee clinical psychologists (Cushway, 1992; Cushway & Tyler, 1994), and the results of this study confirmed this to still be the case. For trainees, it has been shown that feelings of self-doubt are most likely to peak around the time they first begin to treat clients (Millon, Millon, & Antoni, 1986). Recent changes in application criteria may have increased self-doubt in the more recent cohorts of trainees, as training programmes are now considering applicants with a wider range of experiences. For example, applicants with PhDs or other research-oriented experiences are now more readily considered for places on training courses (CHPCCP, 2015). Supervisors should therefore be aware that this might increase the likelihood of self-doubt in some of the newer cohorts of trainees, with many entering training with potentially less client contact than ever before. This point should be addressed during the early stages of supervision. That is, supervisors should take an active interest in the previous experiences of the supervisee, and discuss their perceptions of the quantity and quality of experiences they have had with clients. Reflecting on these experiences can help address the self-doubt being experienced by the trainee, and hopefully go some way to help reduce any associated stress. A

similar approach as described in the developmental section of the research protocol in this study (see table 7.2) could be useful to learn more about the trainees previous experiences, and these questions could be used as a starting point for supervisors.

7.5.3 Personal and professional relationships

Previous research has shown how the nature of "people work" can be inherently stressful (Edwards et al., 2000; Hannigan et al., 2004). Trainee responses in the present study reflected this, with many describing how the relationship-focused nature of their work has caused them stress. Issues with other members of staff on placement were described, and these issues were often attributed to the "trainee" label. More specifically, the "trainee" label was seen as being problematic when working with colleagues who may not understand their role. Role difficulties, including role conflict and role ambiguity, have been found to be predictive of work-related stress and job dissatisfaction in trainees (Olk & Friedlander, 1992), and participants in this study described how they felt undervalued due to a lack of role understanding among colleagues. In addition to feeling undervalued, the trainees also reported worries surrounding the clients' perceptions of being allocated a trainee, and discussed how the "trainee" title added pressure on them to perform.

Could a simple change in the role title be helpful here? For example, the title 'trainee doctor in clinical psychology' instead of the more familiar 'trainee clinical psychologist' could provide greater role understanding among colleagues and clients. Albeit a small change, this emphasis on the doctoral role could have multiple benefits. For example, it could (1) provide more clarity on the doctoral role of clinical psychology training, (2) help other health professionals understand the high level of training undertaken by trainees, (3) help other health professionals understand why a trainee might be on a higher salary band than them, (4) allow the trainee to feel more valued

in the mental health team, (5) present a more accurate account of the training being undertaken, and (6) help clients feel more confident in the abilities of the trainee. The historical role title of clinical psychologists in training may, in itself, need updating. The current BPS guidelines state that trainee psychologists enrolled on a Health and Care Professions Council approved training course are able to use the titles 'Trainee' or 'In-Training'. However, for other groups of psychologists, such as in the case of research psychologists, the doctorate element of training is often made more explicit. We argue that awareness surrounding the doctorate level of clinical psychology training is low among people outside the realms of psychology, and more could be done to promote the high level of training undertaken by trainees.

7.5.4 Social support coping

Having supportive social networks are considered essential to helping trainees cope (Peters et al., 1998). Brooks et al. (2002) found that trainees were more inclined to try to change their environment rather than try to adapt to it, were more outgoing than retiring, and would draw on others rather than themselves for information. These findings make sense in the context of our data, which suggested a prominent coping strategy employed by trainees was seeking social support when needed. In particular, the participants described the importance of social support and took a pro-active approach to seeking it out. This finding could be related to application processes, with courses taking on trainees with similar personality profiles. Alternatively, it could be due to the training itself, with courses encouraging the trainees to seek out and utilise the support available to them. Either way, these results are promising and suggest that with appropriate support systems available, many trainees can, and do, adapt to the stresses of the course.

It should be noted that a number of support systems currently exist for trainees. For example, the role of supervision is now considered crucial in clinical psychology training, and systems have been put in place to ensure good quality supervisory practices (Fleming & Steen, 2012). Other available support systems include tutor systems, appraisals, reflective groups, and therapy networks to name only a few. In other words, clinical psychology trainers are generally approaching support issues in an appropriate and considerate manner, and according to the most recent data from the Alternative Handbook (BPS, 2015), trainees do report feeling very well protected during their training programme. However, it is important not to get complacent, and in an ever-changing NHS workforce it is essential to continually update and review existing support structures.

7.5.5 Personal history, family experiences and self-reported personality characteristics

The "wounded healer" introduced by Jung (1963) suggests that mental health professionals are often compelled to treat clients due to their own personal experiences. In the present study, there was evidence of trainees having such experiences, with many reporting mental health issues of their own, a family member, or a significant other. However, participants did not generally report these experiences as having negative connotations for their professional performance, with many discussing their experiences in a positive light and as improving empathy towards clients. Similar findings have been found elsewhere. For example, in a study of 425 psychologists, Gilroy et al. (2002) found that of the participants reporting previous depression, 32% reported that the experience had increased their empathy towards clients.

It was interesting that the trainees invoked the wounded healer idea in order to explain their own stress, as well as also calling on another stereotype of psychologists, the “natural listener”. That is, a number of trainees described how they are seen in their social circles as someone to turn to in a time of need. Both these findings appear to link to a broader sense of how the trainees identified themselves as being *‘ready made to do this job’*. That is, that their personality characteristics and experiences are an ideal mix to prepare them for this job, and these factors can help them in their career as a clinical psychologist.

However, some participants described how personal experiences could add to the stress of the course. Previous research has shown that when faced with personal problems, trainee health professionals with a lack of social and professional resources are prone to use maladaptive coping strategies (Pryjmachuk & Richards, 2007). Encouraging self-care, promoting available support services, and improving dialogue surrounding issues such as alcohol and drugs, can therefore help trainees cope with the personal stressors they might face during training (Chistopher & Maris, 2010; Malinowski, 2014).

7.5.6 Conclusions

This chapter focused on the sources of stress and coping strategies in pre-qualification clinical psychology as reported by a sample of UK trainee clinical psychologists. Previous research has found stress to be an inevitable feature of pre-qualification clinical psychology, yet no published studies have investigated this using qualitative research. The present study suggests that although pre-qualification clinical psychology is clearly a stressful process, trainees with appropriate support and coping strategies can, and do, adapt to the stresses involved in the course.

Generalisation of the results is difficult because of the small sample size and due to the sample being drawn from only one training programme. However, the findings are consistent with previous research drawing from larger sample sizes, suggesting the recommendations might be of relevance to clinical psychology training more widely. The data presented here can feed into the effective management of clinical psychology training, and will be of interest to clinical psychology trainers, present and future trainees, and any person or organisation interested in helping those in pursuit of qualified status.

Chapter 8: Conclusions, implications and future directions

This thesis has investigated stress and mental health in two groups of healthcare professionals in training using quantitative and qualitative research methods. To consider whether the objectives of the thesis have been met, each objective outlined in chapter 1 will be discussed in turn.

The objectives of the thesis were:

1) To review the literature on stress and coping in two groups of healthcare professionals in training; nursing students and trainee clinical psychologists.

The literature review on nursing students focused on stressors, coping strategies, individual differences and health behaviours. It was found that there has been an abundance of literature on stress in nursing students, and stressors can be broadly defined as being academic, clinical, or personal. The evidence for the coping strategies employed by nursing students was mixed, suggesting other factors might be playing a role. The individual difference variables that appeared particularly important were related to personality (and in particular neuroticism), self-efficacy, and self-esteem. High risk health behaviours such as excessive alcohol consumption and poor diet have been found in nursing students, and this can have implications for patient care. When looking at the area more broadly, it was clear from the review that although direct effects of stressors on mental health had been considered extensively in the literature, little to no research had considered interactions between stressors.

The literature review focusing on trainee clinical psychologists found research across all the domains to be sparse. The research area was much less developed than in nursing, particularly in regards to personality and coping variables. The research agenda for trainee clinical psychologists is therefore necessarily broad, and, for this reason, the literature review concluded by discussing a number of potential future directions. This includes recommendations to focus on individual factors as well as the different aspects of training, comparisons with other similar populations, and exploring the views of clinical psychology educators.

2) To describe a multi-dimensional approach to measuring stress to inform other researchers who may wish to implement this approach in their own work.

Chapter 3 described the multi-dimensional approach that is currently being adopted at the Centre for Occupational Health Psychology in Cardiff. This is the first time the method has been described as a whole, with the multiple stages of the methodological processes combined into a structured format. More research needs to be undertaken to further investigate the DRIVE model and single items using the WPQ design. Therefore, we call on colleagues to consider the usefulness of this approach in their own research and to implement it when investigating workers/trainees in other occupations. The development and validation of further single-item questions using the WPQ design could also spark a new line of research.

3) To test the Demands Resources and Individual Effects (DRIVE) model (Mark & Smith, 2008).

Chapters 3, 4, and 6 adopted the DRIVE model as a framework and support was found for a number of DRIVE model predictions. In particular, support was found for the direct effects and the mediating role of perceived stress. Partial support was

found for some of the proposed moderation effects and this was in line with previous research. The general conclusion that can be made about the DRIVE model is that it is a suitable model that can be applied in research wishing to focus on multiple dimensions of the stress process.

4) To explore the effects of multiple factors in the prediction of mental health problems for nursing students and trainee clinical psychologists.

Chapter 4 focused on the different types of stressors nursing students face (i.e. academic, clinical, personal), whereas chapter 6 focused on personality and coping variables in trainee clinical psychologists. Objective 4 was met in these chapters by exploring multiple factors at multiple levels of the stress process, and the implications for the training of these two groups were discussed. These chapters can also act as a further reference point for researchers who wish to focus on particular aspects of the stress process, in particular populations, using a multi-dimensional approach (and therefore linking to objective 2).

5) To explore stressors and coping strategies further, using a thematic analysis of qualitative interviews.

Chapters 5 and 7 adopted qualitative methods to investigate stress in mental health nursing students and trainee clinical psychologists. The findings from these studies suggested that these groups are exposed to a number of stressors which may impact on their wellbeing. These qualitative studies provided a rich account of stress in these two mental health training groups, and therefore complement the findings from the previous quantitative research conducted in the field. Many of the reported stressors were common across the two groups and others were specific to the individual population. For example, similarities between the groups included conflict

with members of staff, problems in their home life, and 'being a student/trainee', whereas differences included the level of support received. That is, trainee clinical psychologists generally reported feeling well supported, whereas mental health nursing students reported inadequate support. Furthermore, there were additional barriers to accessing support for mental health nursing students, such as gaining access to counselling services during busy periods.

Overall strengths and limitations of the multi-dimensional approach

To conclude the thesis it is important to consider the overall strengths and limitations of the multi-dimensional approach as this can help consider where future research might focus its resources. There are four major strengths and four major weaknesses of the multi-dimensional approach, and these will be considered in turn.

Strengths

1) We consider the first major strength to be the flexibility of the approach. The flexible nature of the WPQ allows for questions to be included in the questionnaire that are important for the specific population being investigated. For example, a questionnaire distributed to factory workers might focus more on the demands of the physical environment such as the effects of noise on wellbeing. However, in most cases this would be an inappropriate line of questioning for clinical psychologists. Therefore, questionnaires can be tailored to suit individual populations and to help generate the required information needed by particular employers to appropriately focus its resources.
2) A major strength of the approach is that it allows multiple factors to be considered using a relatively short questionnaire. At a theoretical level, a fully developed understanding of the contribution of so many potential factors on

outcomes is not currently available in the stress literature, and this could be explored further using the multi-dimensional approach.

3) A further strength of the approach is that the single item questions in the WPQ are generated based on previously validated multi-item scales (Williams & Smith, 2014). The design of the questions allows for a similar level of information to be available to the participants as if multi-item scales were used, and this might help improve participant understanding and improve clarity of the construct being measured.
4) As multiple constructs are measured, participants can "check-in" on their wellbeing in a multi-faceted way. This can be a useful exercise to reflect on multiple aspects of their lives in a relatively short questionnaire.

Weaknesses

1) The first major weakness of this approach is that it is not suitable to compare across samples as different single items might be used for different populations, which leads to components having different indicators. Although this is a major problem for comparison research, this could be considered a strength for tailoring questionnaires for different types of workers. The applicability of this approach is therefore currently limited to work on individual populations. However, future research could consider the development of a non-occupation specific WPQ which measures broader constructs and can be applied to all working populations more generally.
2) Although the thesis has argued throughout that measuring multiple constructs is preferable, this can cause issues when analysing the data. More variables means larger data sets to manage and control and this can increase the complexity of the analysis. A review of the most appropriate analysis strategies

for complex data sets is beyond the scope of this thesis. However, future research must consider which forms of analysis are the most appropriate when adopting a multi-dimensional approach.

3) A criticism of the NOF score is that by simply summing scores on negative items, the approach fails to account for the relative strength and importance of different items for the person. The approach could therefore be considered too simplistic and may only provide basic information (i.e. that people who experience more negative issues are worse off). This score should therefore be used with some degree of caution.
4) Dichotomised variables are not the ideal method for a fine grained analysis of the variables. The purpose for dichotomising the variables was for ease of interpreting multiple variables. However, a lot of information is lost with this approach.

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Appendix A – Questionnaire

PARTICIPANT INFORMATION SHEET

Title of Project: The experience of training to be a nurse
Name of Researcher: John Galvin

Who is conducting the research?
John Galvin, a PhD student in the School of Psychology at Cardiff University is conducting this research.

Why is the research being done?
There are many studies on stress in nurses and many have concluded that the stress levels in this profession are particularly high. Whilst much research focuses on stress in qualified professionals, the aim of this research will be to ascertain whether you, as a student may be more or less vulnerable.

What does participation involve?
If you would like to take part in the study you will be asked to complete a questionnaire, which will take approximately 15 minutes to complete. The questionnaire will be paper-based, comprising questions on demographic information, your experiences of training, your well-being, your general health and your personality. As this is a longitudinal study, I will come back in about 7 months (around June) to one of your lectures and ask you to fill out the questionnaire again (it will be the same questionnaire). This is so we can see if there are any changes over this time period.

Do I have to take part?
You are being offered the opportunity to participate in this study as you fulfil the necessary criteria for the research. It is entirely up to you if you wish to participate or not and this decision is entirely voluntary. If you do decide to take part and then change your mind you can withdraw from the study at any time.

Are any personal details about me stored?
Your personal information is completely anonymous. At the beginning of the questionnaire you will be asked to provide your student number, however this is just so this questionnaire can be linked to any future questionnaires you may fill out. The researcher has no access to your personal information (I am just a student like you at the end of the day!) and the responses you provide here will not be linked to your student account in any way. Furthermore, the school of nursing or anyone associated with it (e.g. staff) will not have access to your questionnaire responses.

Are there any benefits to participants/others as a result of taking part?
There are no material benefits for your involvement in this research. However, this investigation may inform future best practice and challenge or strengthen more widespread professional opinions on nurse training.

Please put your student ID number in the space below. (For example, mine is c0924428)

…….

Thank you for taking part in this study. Please begin by responding to these simple demographic questions. Please circle your answers.

---

1. Sex

(1) Male (2) Female

---

2. Current relationship status

(1) Single

(2) Living with partner

(3) I have a partner, but I am not living with them

(4) Married

(5) Separated

(6) Divorced

(7) Widowed
(8) Other (please specify) ……

---

3. What is your ethnic group?

Please circle one option that best describes your ethnic group or background

White
1. Welsh / English / Scottish / Northern Irish / British
2. Irish
3. Gypsy or Irish Traveller
4. Any other White background, please describe ……

Mixed / Multiple ethnic groups
5. White and Black Caribbean
6. White and Black African
7. White and Asian
8. Any other Mixed / Multiple ethnic background, please describe ……

Asian / Asian British
9. Indian
10. Pakistani
11. Bangladeshi
12. Chinese
13. Any other Asian background, please describe ……

Black / African / Caribbean / Black British
14. African
15. Caribbean

16. Any other Black / African / Caribbean background, please describe

Other ethnic group

17. Arab

18. Any other ethnic group, please describe …….

---

4. How old are you (in years)?

……. years old

---

5. Which course are you on?

(1) Adult nursing (2) Mental health nursing (3) Child nursing

---

---

6. What is your current year of training?

……...

These next questions relate to your general experience on your course over the last four months (for first year students just take in to consideration the time you have been here!). Please circle how strongly you agree or disagree with a given statement. Please note that the examples provided in brackets are for guidance only, designed to help you understand what the statement is referring to, rather than being strict criteria.

---

7. I feel that my work is too demanding (for example: I have to work very fast, I have to work very hard, I have conflicting demands)

Disagree strongly 1 2 3 4 5 6 7 8 9 10 Agree strongly

---

8. I feel that I get adequate control over my work (for example: I have a choice in what I do or how I do things, I am able to learn new things, I am able to be creative)

Disagree strongly 1 2 3 4 5 6 7 8 9 10 Agree strongly

---

9. I feel that I am supported by my peers (for example: there is a good atmosphere on the course, I get along with my peers, my peers understand me)

Disagree strongly 1 2 3 4 5 6 7 8 9 10 Agree strongly

---

10. I feel that I do not have the time I need to get my work done (for example: I am under constant time pressure, interrupted in my work, or overwhelmed by responsibility or work demands)

Disagree strongly 1 2 3 4 5 6 7 8 9 10 Agree strongly

---

11. I am satisfied with my relationships at university (for example: I get the respect I deserve from colleagues, I am treated fairly, I receive support when I need it)

Disagree strongly 1 2 3 4 5 6 7 8 9 10 Agree strongly
---

12. I feel that I have been rewarded for my efforts (for example: The respect, role, and job prospects I receive are suitable for my efforts and achievements)

Disagree strongly 1 2 3 4 5 6 7 8 9 10 Agree strongly
---

13. How stressful are you finding the academic component of the course?

Not at all stressful 1 2 3 4 5 6 7 8 9 10 Extremely stressful
---

14. Overall, I feel that I get on well with my personal tutor (e.g. I know where I stand in terms of their opinion of me, my personal tutor understands me, my personal tutor recognises my potential).

Disagree strongly 1 2 3 4 5 6 7 8 9 10 Agree strongly

Please consider the following elements of student life and indicate overall to what extent they have been a part of your life over the past 6 months. Remember to use the examples as guidance rather than trying to consider each of them specifically.

---

15. Challenges to your development (e.g. important decisions about your education and future career, dissatisfaction with your written or mathematical ability, struggling to meet your own or others' academic standards).

Not at all part of my life 1 2 3 4 5 6 7 8 9 10 Very much part of my life
---

16. Time pressures (e.g. too many things to do at once, interruptions of your school work, a lot of responsibilities).

Not at all part of my life 1 2 3 4 5 6 7 8 9 10 Very much part of my life
---

17. Academic Dissatisfaction (e.g. disliking your studies, finding courses uninteresting, dissatisfaction with school).

Not at all part of my life 1 2 3 4 5 6 7 8 9 10 Very much part of my life
---

18. Romantic Problems (e.g. decisions about intimate relationships, conflicts with boyfriends'/girlfriends' family, conflicts with boyfriend/girlfriend).

Not at all part of my life 1 2 3 4 5 6 7 8 9 10 Very much part of my life
---

19. Societal Annoyances (e.g. getting ripped off or cheated in the purchase of services, disliking fellow students).

Not at all part of my life 1 2 3 4 5 6 7 8 9 10 Very much part of my life
---

20. Social Mistreatment (e.g. social rejection, loneliness, being taken advantage of).

Not at all part of my life 1 2 3 4 5 6 7 8 9 10 Very much part of my life
---

21. Friendship problems (e.g. conflicts with friends, being let down or disappointed by friends, having your trust betrayed by friends).

Not at all part of my life 1 2 3 4 5 6 7 8 9 10 Very much part of my life
---

22. Financial problems (e.g. having no money, being in debt)

Not at all part of my life 1 2 3 4 5 6 7 8 9 10 Very much part of my life
---

The Following questions relate to your experiences on clinical placement. If you have not yet had a clinical placement (e.g. first years) please skip to question 40.
---

23. Overall, I feel that I get on well with my most recent mentor (e.g. I know where I stand in terms of their opinion of me, my mentor understands me, my mentor recognises my potential).

Disagree strongly 1 2 3 4 5 6 7 8 9 10 Agree strongly
---

24. How stressful are you finding the clinical component of the course?

Not at all stressful 1 2 3 4 5 6 7 8 9 10 Extremely stressful
---

Please indicate the <u>frequency</u> with which you have experienced these sources of stress on placement. Please remember the examples in brackets are for guidance only, designed to give you an idea of what the main statement is referring to.
---

25. Being inadequately prepared (e.g. feeling inadequately trained for what I have to do, being asked a question by a patient or their family for which I do not have a satisfactory answer).

Never 1 2 3 4 5 6 7 8 9 10 Very frequently
---

26. Lack of support (e.g. lack of an opportunity to share experiences and feelings with other personnel on the unit, lack of opportunity to talk openly with other personnel about problems on the unit).

Never 1 2 3 4 5 6 7 8 9 10 Very frequently
---

27. Conflict with other nurses (e.g. difficulty in working with a particular nurse (or nurses) on the unit, being criticised or having arguments with others).

Never 1 2 3 4 5 6 7 8 9 10 Very frequently
---

28. Heavy workload (e.g. not enough staff to adequately cover the unit, too many non-nursing tasks required such as clerical work, having to work through breaks).

Never 1 2 3 4 5 6 7 8 9 10 Very frequently
---

29. Death and dying (e.g. listening or talking to a patient about his/her approaching death, the death of a patient with whom you have developed a close relationship).

Never 1 2 3 4 5 6 7 8 9 10 Very frequently
---

30. Conflict with physicians (e.g. criticism by a physician, a physician ordering what appears to be inappropriate treatment for a patient)

Never 1 2 3 4 5 6 7 8 9 10 Very frequently
---

31. Discrimination (e.g. experiencing discrimination on the basis of sex, age, race or ethnicity)

Never 1 2 3 4 5 6 7 8 9 10 Very frequently
---

32. Hassles from patients/relatives (e.g. patients or their families making unreasonable demands, having to deal with abuse from patients or their families, dealing with violent patients)

Never 1 2 3 4 5 6 7 8 9 10 Very frequently

The next set of questions are related to your thoughts and feelings about yourself. Please try to be as honest and accurate as possible. Please note that the examples provided in brackets are for guidance only, designed to help you understand what the statement is referring to, rather than being strict criteria.

---

33. On a scale of one to ten, how depressed would you say you are in general? (e.g. feeling 'down', no longer looking forward to things or enjoying things that you used to)

Not at all depressed 1 2 3 4 5 6 7 8 9 10 Extremely depressed
---

34. On a scale of one to ten, how anxious would you say you are in general? (e.g. feeling tense or 'wound up', unable to relax, feelings of worry or panic)

Not at all anxious 1 2 3 4 5 6 7 8 9 10 Extremely anxious
---

35. On a scale of one to ten, how happy would you say you are in general?

Extremely unhappy 1 2 3 4 5 6 7 8 9 10 Extremely happy
---

36. In general, how would you rate your physical health?

Extremely poor 1 2 3 4 5 6 7 8 9 10 Extremely good

Please state how much you agree or disagree with the following statements. The examples in brackets are for guidance only.

---

37. I am confident in my ability to solve problems that I might face in life (For example: I can usually handle whatever comes my way, If I try hard enough I can overcome difficult problems, I can stick to my aims and accomplish my goals)

Disagree strongly 1 2 3 4 5 6 7 8 9 10 Agree strongly

---

38. Overall, I feel that I have positive self-esteem (For example: On the whole I am satisfied with myself, I am able to do things as well as most other people, I feel that I am a person of worth)

Disagree strongly 1 2 3 4 5 6 7 8 9 10 Agree strongly

---

39. I feel that I have the social support I need (For example: There is someone who will listen to me when I need to talk, there is someone who will give me good advice, there is someone who shows me love and affection)

Disagree strongly 1 2 3 4 5 6 7 8 9 10 Agree strongly

---

40. Overall, I feel that I am satisfied with my life (For example: In most ways my life is close to my ideal, so far I have gotten the important things I want in life)

Disagree strongly 1 2 3 4 5 6 7 8 9 10 Agree strongly

---

41. Overall, how stressful is your course?

Not at all stressful 1 2 3 4 5 6 7 8 9 10 Very stressful

---

42. Overall, how stressful is your life outside of the course?

Not at all stressful 1 2 3 4 5 6 7 8 9 10 Very stressful

---

43. Overall, how satisfied are you with your course?

Very dissatisfied 1 2 3 4 5 6 7 8 9 10 Very satisfied

---

44. On an average week, how many hours of rigorous exercise do you do?

……

The following statements refer to how you cope with things in your life.

---

45. When I find myself in stressful situations, I take a problem-focused approach (For example: I take one step at a time, I change things about the situation or myself to deal with the issue, I don't let my feelings interfere too much).

Disagree strongly 1 2 3 4 5 6 7 8 9 10 Agree strongly

---

46. When I find myself in stressful situations, I look for social support (e.g. I talk to someone to get more information, I ask someone for advice, I talk to someone about how I'm feeling).

Disagree strongly 1 2 3 4 5 6 7 8 9 10 Agree strongly

---

47. When I find myself in stressful situations, I blame myself (e.g. I criticise or lecture myself, I realise I brought the problem on myself).

Disagree strongly 1 2 3 4 5 6 7 8 9 10 Agree strongly

---

48. When I find myself in stressful situations, I wish for things to improve (e.g. I hope a miracle will happen, I daydream about a better situation).

Disagree strongly 1 2 3 4 5 6 7 8 9 10 Agree strongly

---

49. When I find myself in stressful situations, I try to avoid the problem (e.g. I keep things to myself, I go on as if nothing has happened, I try to make myself feel better by eating/drinking/smoking).

Disagree strongly 1 2 3 4 5 6 7 8 9 10 Agree strongly

---

50. Do you smoke?

□ Yes □ No

---

51. If so, how many cigarettes do you smoke per day?

…….

---

52. On average, how often do you drink alcohol during the week, (Monday to Thursday)?

□ Never
□ One day
□ Two days
□ Three days
□ All four days

---

53. How many units of alcohol do you drink during an average week (Monday to Thursday)? (1 unit = half a pint of beer/glass of wine/1 measure of spirits).

…….

---

54. On average, how often do you drink alcohol during the weekends, (Friday to Sunday)?

□ Never
□ One day
□ Two days
□ All three days

---

55. How many units of alcohol do you drink during an average weekend (Friday to Sunday)? (1 unit = half a pint of beer/glass of wine/1 measure of spirits).

…….

---

56. For the next two questions, please take a moment to think about your daily life and your recent experiences over the last four months (e.g. your tasks, your interactions with others, your thoughts about work or personal factors).

57. In the past four months, how many of your experiences have been a hassle (i.e. irritated you, or made you upset or angry)?

None		A few		Some		A lot			All
1	2	3	4	5	6	7	8	9	10

58. In the past four months, how many of your experiences have been uplifting (i.e. made you feel happy or joyful, or gave a sense of satisfaction)?

None		A few		Some		A lot			All
1	2	3	4	5	6	7	8	9	10

59. How well do the following statements describe your personality?
I see myself as someone who…

… is reserved	Disagree strongly 1 2 3 4 5 6 7 8 9 10 Agree strongly
… is generally trusting	Disagree strongly 1 2 3 4 5 6 7 8 9 10 Agree strongly
… tends to be lazy	Disagree strongly 1 2 3 4 5 6 7 8 9 10 Agree strongly
… is relaxed, handles stress well	Disagree strongly 1 2 3 4 5 6 7 8 9 10 Agree strongly
… has few artistic interest	Disagree strongly 1 2 3 4 5 6 7 8 9 10 Agree strongly
… is outgoing, sociable	Disagree strongly 1 2 3 4 5 6 7 8 9 10 Agree strongly
… tends to find fault with others	Disagree strongly 1 2 3 4 5 6 7 8 9 10 Agree strongly
… does a thorough job	Disagree strongly 1 2 3 4 5 6 7 8 9 10 Agree strongly
… gets nervous easily	Disagree strongly 1 2 3 4 5 6 7 8 9 10 Agree strongly
… has an active imagination	Disagree strongly 1 2 3 4 5 6 7 8 9 10 Agree strongly

---

Debrief

Thank you for your participation! ☺

If you have any concerns or queries about the research, please contact the researcher (John Galvin), the supervisor of the project (Prof Andy Smith), or the Psychology Ethics Committee using the contact details below. If you are affected by any of the issues raised in the questionnaire then there are a number of services available through the university which can offer support at the following links

http://www.cardiff.ac.uk/govrn/cocom/equalityanddiversity/index.html (equality and diversity)

http://www.cardiff.ac.uk/counselling/about/index.html (counselling service)

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Appendix B

Measured variables T1	Adult nursing students		Metal Health students		Child nursing students		df	F	P	Partial η^2
	M	SD	M	SD	M	SD				
Demands	6.82	1.963	6.53	2.179	6.86	1.952	2, 354	n.s.	.n.s	n.s
Control	6.14	2.028	5.86	2.086	5.78	1.878	2, 355	n.s.	.n.s	n.s
Support	7.63	2.153	7.84	1.842	8.32	1.822	2, 355	3.066	.048	.017
Effort	6.60	2.457	6.40	2.233	6.78	2.541	2, 355	n.s.	.n.s	n.s
Satisfaction with work relationships	7.16	2.193	7.36	2.019	7.04	2.178	2, 355	n.s.	.n.s	n.s
Reward	6.29	2.156	6.20	1.827	6.20	1.990	2, 351	n.s.	.n.s	n.s
Academic Stress	7.80	1.909	7.79	1.980	7.86	1.823	2, 352	n.s.	.n.s	n.s
Personal tutor relationship	8.40	2.272	8.14	2.123	8.03	2.014	2,353	n.s.	.n.s	n.s
Challenges to your development	6.73	2.236	6.68	2.202	6.65	1.777	2, 355	n.s.	.n.s	n.s
Time pressures	7.61	1.875	7.70	1.741	7.54	2.028	2, 353	n.s	n.s.	n.s.
Academic dissatisfaction	4.75	2.374	4.77	2.347	4.49	2.295	2, 355	n.s.	n.s.	n.s.
Romantic problems	4.06	3.078	4.36	3.127	4.07	2.708	2, 354	n.s.	.n.s	n.s
Societal annoyances	3.48	2.300	3.99	2.568	3.76	2.688	2, 354	n.s.	.n.s	n.s
Social mistreatment	2.73	2.129	3.24	2.442	2.72	2.043	2, 355	n.s.	.n.s	n.s
Friendship problems	2.93	2.330	3.30	2.603	2.63	2.017	2, 355	n.s.	.n.s	n.s
Financial problems	7.38	2.843	7.57	2.454	7.49	2.773	2, 355	n.s.	.n.s	n.s
Supervisor relationship	8.40	2.067	8.48	1.908	8.47	2.069	2,354	n.s.	.n.s	n.s
Clinical stress	5.13	2.429	4.85	2.438	4.81	2.256	2, 354	n.s.	n.s.	n.s.
Being inadequately prepared	5.99	2.133	5.31	2.259	6.28	2.064	2, 354	4.583	.011	.025
Lack of support	4.46	2.215	4.11	2.347	4.38	2.217	2, 354	n.s.	n.s.	n.s.
Conflict with other nurses	2.78	2.050	3.18	2.367	3.00	2.227	2, 354	n.s.	.n.s	n.s
Heavy workload	6.72	2.775	5.75	2.723	6.08	2.579	2, 353	4.328	.014	.024
Death and dying	5.27	2.593	2.55	2.028	2.59	2.053	2, 350	57.230	<.001	.246
Conflict with other placement staff	3.13	2.266	2.17	1.642	3.07	2.285	2, 352	6.528	.002	.036
Discrimination	2.35	2.267	2.12	1.820	2.10	2.104	2, 353	n.s.	n.s.	n.s.
Hassles from patients and relatives	4.47	2.382	3.83	2.380	3.82	2.393	2, 354	3.270	.039	.018
Depression	6.93	2.508	6.73	2.326	7.31	2.317	2, 355	n.s.	n.s.	n.s.
Anxiety	5.50	2.471	5.21	2.742	4.83	2.264	2, 354	n.s.	.n.s	n.s
Happiness	6.75	1.982	6.28	1.860	6.93	1.689	2, 354	2.796	.062	.016
Physical health	7.04	2.114	6.92	1.967	7.18	1.772	2, 354	n.s.	n.s.	n.s.
Self-efficacy	7.77	1.573	7.26	1.963	7.58	1.392	2, 354	3.062	.048	.017
High self-esteem	6.95	2.188	6.04	2.393	6.85	1.741	2, 354	5.651	.004	.031
Low self-esteem	4.31	2.590	4.88	2.750	3.90	2.296	2, 353	2.962	.053	.017
Social support	8.09	1.946	7.51	2.132	8.22	1.794	2, 354	3.424	.034	.019
Life satisfaction	7.61	1.848	6.93	2.148	7.49	1.492	2, 352	4.026	.019	.022
Course stress	8.02	1.754	8.08	1.678	7.89	1.588	2, 354	n.s.	.n.s	n.s
Life stress	5.06	2.449	5.20	2.546	4.89	2.338	2, 350	n.s.	.n.s	n.s
Interference of personal life	5.76	2.872	5.98	2.865	6.00	2.421	2, 350	n.s.	.n.s	n.s
Course satisfaction	6.36	2.160	6.28	1.977	6.67	1.678	2, 353	n.s.	.n.s	n.s
Average hours of sleep (per night)	6.73	1.084	6.63	1.247	6.96	1.448	2, 353	n.s.	.n.s	n.s
Exercise	3.13	2.762	3.51	2.916	4.01	3.709	2, 351	n.s.	.n.s	n.s
Problem-focused coping	4.63	2.048	4.74	2.108	4.60	1.642	2, 353	n.s.	.n.s	n.s
Social support coping	7.32	2.211	6.70	2.470	7.47	2.220	2, 353	2.942	.054	.016
Self-blame coping	5.49	2.561	6.11	2.465	5.83	2.344	2, 353	n.s.	.n.s	n.s
Wishful thinking coping	7.05	2.452	7.04	2.650	6.49	2.813	2, 353	n.s.	.n.s	n.s
Avoidance coping	4.64	2.572	5.44	2.824	4.85	2.684	2, 353	2.788	.063	.016
Alcohol (no. of days on weekdays)	0.67	0.852	1.38	1.006	1.47	.691	2, 354	33.857	<.001	.161
Alcohol (no. of units on weekdays)	2.50	4.192	3.56	8.111	1.51	2.552	2, 349	3.066	.048	.017
Alcohol (no. of days on weekend)	0.96	0.649	1.80	0.756	1.85	0.597	2, 351	72.294	<.001	.292
Alcohol (no. of units on weekends)	5.97	5.875	9.34	8.866	4.44	4.503	2, 343	12.206	<.001	.066

Hassles	5.78	1.935	5.72	1.954	5.78	1.863	2, 354	n.s.	n.s.	n.s.
Uplifts	6.34	1.809	6.06	1.767	6.63	1.467	2, 354	n.s.	.n.s	n.s
Extraversion	6.89	1.999	6.69	1.905	7.04	1.614	2, 354	n.s.	.n.s	n.s
Neuroticism	6.13	1.873	6.26	2.239	6.14	2.002	2, 354	n.s.	n.s.	n.s.

Means and standard deviations for each group and the results of the ANOVA tests for each variable.

Appendix C

Measured components T1	Adult nursing students		Metal Health students		Child nursing students		df	F	P	Partial η^2	Possible range
	M	SD	M	SD	M	SD					
Work resources	33.52	6.663	33.60	5.880	34.14	5.605	2, 339	n.s.	.n.s	n.s	5-50
Job demands	19.15	4.797	18.51	4.752	19.37	5.097	2, 342	n.s.	.n.s	n.s	3-30
Social/ student problems	13.12	7.269	14.65	7.562	13.14	7.389	2, 342	n.s.	.n.s	n.s	4-40
Academic stressors	26.74	7.710	26.58	5.664	26.03	5.516	2, 342	n.s.	.n.s	n.s	4-40
Clinical stressors	22.09	7.945	15.98	6.599	17.41	6.895	2, 328	23.615	<.001	.123	6-60
Lack of support at work	15.83	5.076	14.99	6.286	16.10	6.222	2, 344	n.s.	.n.s	n.s	4-40
Perceived job stress	21.04	4.446	20.54	4.794	20.56	4.558	2, 340	n.s.	.n.s	n.s	3-30
Perceived life stress	10.77	4.693	11.11	4.869	10.91	4.083	2,336	n.s.	.n.s	n.s	2-20
Wellbeing	26.95	7.032	25.99	7.293	27.94	5.981	2, 341	n.s.	.n.s	n.s	5-50
Job satisfaction	6.39	2.125	6.35	1.938	6.73	1.594	2, 342	n.s	n.s.	n.s.	1-10
Weekday Alcohol	1.80	2.974	1.61	3.161	0.69	1.185	2, 340	4.203	.016	.024	N.A.
Weekend Alcohol	5.02	5.112	4.89	5.476	2.09	1.958	2, 333	10.159	<.001	.058	N.A.
Total Alcohol	6.86	6.818	6.61	7.168	2.76	2.652	2, 330	11.089	<.001	.063	N.A
Physical health	10.23	3.78	10.39	3.976	11.23	4.425	2, 340	n.s	n.s.	n.s.	2-20
Emotion-based coping	21.84	6.943	23.14	7.234	21.72	6.323	2, 342	n.s	n.s.	n.s.	4-40
Social support coping	15.40	3.296	14.26	3.729	16.68	3.097	2, 341	4.393	.013	.025	2-20
Positive outlook	33.14	7.424	31.06	8.736	33.28	6.412	2, 341	2.497	.084	.014	5-50

Means and standard deviations for each group at T1 and the results of the ANOVA tests for each component.

Appendix D

Mental health problems	MHN students			AN students			CN students		
	Increased	Decreased	*P*	Increased	Decreased	*P*	Increased	Decreased	*P*
MHN students									
AN students									
CN students									
Increased resources	20(39)	31(61)		30(29)	75(72)		21(47)	24(53)	
Decreased resources	18(46)	21(54)	.509	50(55)	41(45)	<.001	13(48)	14(52)	.903
Increased job demands	26(55)	21(45)		38(43)	51(57)		19(61)	12(39)	
Decreased job demands	12(28)	31(72)	.009	42(39)	65(61)	.625	15(37)	26(63)	.038
Increased social worries	20(49)	21(51)		51(48)	56(52)		21(62)	13(38)	
Decreased social worries	18(37)	63(31)	.249	29(33)	60(67)	.032	13(24)	25(66)	.019
Increased academic stressors	21(49)	22(51)		49(51)	47(49)		19(50)	19(50)	
Decreased academic stressors	17(36)	30(64)	.224	31(31)	69(69)	.004	15(44)	19(56)	.618
Increased neg clinical exp	25(52)	23(48)		44(45)	54(55)		20(63)	12(37)	
Decreased neg clinical exp	13(31)	29(69)	.043	36(37)	62(63)	.245	14(35)	26(65)	.020
Increased lack of support	16(37)	27(63)		40(41)	57(59)		12(46)	14(53)	
Decreased lack of support	22(47)	25(53)	.357	40(40)	59(60)	.906	22(48)	24(52)	.891
Increased job satisfaction	24(38)	39(62)		45(35)	82(65)		24(44)	31(56)	
Decreased job satisfaction	14(52)	13(48)	.226	35(51)	34(49)	.037	10(59)	7(41)	.273
Increased perceived life stress	20(48)	22(52)		47(57)	35(43)		21(66)	11(34)	
Decreased perceived life stress	18(38)	30(62)	.332	33(29)	81(71)	<.001	13(33)	27(67)	.005
Increased perceived job stress	15(41)	22(59)		42(46)	50(54)		24(69)	11(31)	
Decreased perceived job stress	23(43)	30(57)	.787	38(37)	66(63)	.195	10(27)	27(73)	<.001
Increased emotion coping	17(43)	23(57)		41(51)	40(49)		17(63)	10(37)	
Decreased emotion coping	21(42)	29(58)	.962	39(34)	76(66)	.019	17(38)	28(62)	.038
Increased soc support coping	13(28)	33(72)		42(38)	69(62)		18(45)	22(55)	
Decreased soc support coping	25(57)	19(43)	.006	38(45)	47(55)	.332	16(50)	16(50)	.673
Increased positive personality	15(31)	34(69)		28(26)	78(74)		10(26)	28(74)	
Decreased positive personality	23(56)	18(44)	.015	52(58)	38(42)	<.001	24(71)	10(29)	<.001
Increased weekday alcohol	4(44)	5(56)		13(48)	14(52)		3(43)	4(57)	
Decreased weekday alcohol	34(42)	47(58)	.887	67(40)	102(60)	.404	31(48)	52(34)	.808
Increased weekend alcohol	22(67)	11(33)		43(64)	24(36)		17(74)	6(26)	
Decreased weekend alcohol	27(47)	30(53)	.194	56(43)	73(57)	.305	28(57)	21(43)	.014
Increased total alcohol	13(39)	20(61)		31(40)	47(60)		9(31)	20(69)	
Decreased total alcohol	25(44)	32(56)	.679	49(42)	69(58)	.804	25(58)	18(420	.024
Increased physical health	17(36)	30(64)		34(31)	75(69)		16(37)	27(63)	

Associations between mental health problems and each of the components for the change between T1 and T2

Appendix E

Decreased Wellbeing	Adult Nursing Students		
	OR	CI	*P*
Work Resources			
Increase	1.00		
Decrease	3.348	1.686-6.648	.001
Positive Outlook			
Increase	1.00		
Decrease	2.994	1.538-5.830	.001
Academic Stressors			
Decrease	1.00		
Increase	1.893	.977-3.667	.059
Perceived Life stress			
Decrease	1.00		
Increase	4.247	2.132-8.461	<.001

Backward logistic regression analysis for the adult nursing students: Final step of the analysis only

Decreased Wellbeing	Mental Health Nursing Students		
	OR	CI	*P*
Social Support Coping			
Increase	1.00		
Decrease	3.279	1.287-8.355	.013
Job Demands			
Decrease	1.00		
Increase	3.497	1.358-9.001	.009
Clinical Stressors			
Decrease	1.00		
Increase	2.406	.940-6.158	.067

Backward logistic regression analysis for the mental health nursing students: Final step of the analysis only

Decreased Wellbeing	Child Nursing Students		
	OR	CI	*P*
Positive Outlook			
Increase	1.00		
Decrease	13.074	2.930-58.347	.001
Job Demands			
Decrease	1.00		
Increase	5.596	1.032-30.334	.046
Clinical Stressors			
Decrease	1.00		
Increase	11.222	1.999-63.005	.006
Perceived Job Stress			
Decrease	1.00		
Increase	3.293	.858-12.640	.082
Weekend Alcohol Consumption			
Increase	1.00		
Decrease	6.911	1.392-34.305	.018

Backward logistic regression analysis for the child nursing students: Final step of the analysis only

Appendix F – Sample transcript

Participant 7

Female

Age: 23

1st year

John: Okay, so. What made you want to become a mental health nurse?

Participant: Oh it all comes from... Basically I had- I went- I've done a degree already, so I did a degree in sociology and in kind of third year I knew that it wasn't giving me the direction, or like a job as such. I knew I wasn't going to come out and be- I didn't want to go into social research. I thought about social work but they seemed- my mom suggested it to me because I had my own mental health problems when I was younger which I'd overcome and that time from- cause when I was 17 I was diagnosed with an eating disorder. I'd overcome that in that time also a lot of people around me have had, like my boyfriend has depression, my sister's been mentally unwell as well, so it's kind of been around me a lot as i grew up, as well. My mom, I know now because obviously as a child I didn't know but she was depressed and also taking antidepressants when she was raising us so it has kind of been around me for a long time and having experienced it my self I just thought for my self: I don't ... If I can do anything to help people out of that kind of mental anguish then I will try my upmost and I thought well, I'd hope that this could be the path to that so that's where it came from.

John: Okay that's interesting. Yeah, a lot of people's... sort of...

Participant: Yeah, I think it's quite common, yeah...

John: Yeah, it's sort of a- their own background. So you think that's definitely one of the most driving factors?

Participant: yeah, I can pinpoint exactly the moment where I thought- I remember I was on holiday and I was still sort of battling with like the latest stages of my eating disorder at the time and I was just like I felt so shit that I was just like I just don't- I thought I'd hate thinking it that there are other people feeling this crap. So I thought if I could use my experience for good then I will try my best and that's where the moment hit me and oh I've got to do something to yeah help people basically so that's where it came from.

John: Yeah, so how long have you- how long did you have an eating disorder for?

Participant: It started in my first year of A-levels, so when I was about 17 and it's- I lost a lot of weight. I was... I was diagnosed with an EDNOS because I didn't quite fit into the anorexia, bulimia, but I was severely under weight, had some kind of treatment that I sort of engaged with but not fully, put weight on, got discharged,

went the other way, went kind of more bulimic kind of stuff and then that just sort of leveled itself out and then I'd say- me I'd say I probably recovered properly, like when I say properly I'm not really- I'm not engaging in any eating disorder activity anymore and my weight stabilized but that's probably been for about a couple of years now so it was probably from when I was 17 to about 20, I'd say. So, three years -ish.

John: Okay.

Participant: Yeah.

John: And so you said your family members as well have suffered and the people around you?

Participant: Yeah

John: Okay and how were those experiences with you...?

Participant: It's been varying. I mean, as I say, with my mom I wasn't really aware until I was older, and it wasn't until I started experiencing my own sort of depression and was given medication for that. Because of going to my first year of uni in Bristol to my sociology degree I became severely depressed, really unwell, and that's when I first had medication, and such, and obviously- and I was talking to my mom about it because I've got a close relationship with her and that's when it all sort of came out about her... and then- so with that- It didn't... as a child it didn't really feel as though that affected me, but say, for a start, my sister- she's still going through everything now, so that's quite... 'Cause I don't live with her it doesn't take too much of a toll on me but I do worry about her. My boyfriend as well, he's been, well, all the time I've known him- I've been with him for three years now- and he's been up and down the whole way, and that obviously takes more of a toll on me because I'm with him all the time. So yeah...

John: yeah...

Participant: ...But I feel like I'm dealing with it quite well, but I don't know. I try my best.

John: Okay, yeah. So how do you feel those are feeding into the course then?

Participant: To be honest, as I say, my family not so much 'cause I don't sadly see them all that much. I'm close to them. I speak to them a lot but I don't see them so much, so I don't think that's affecting the course at all, really. But with my boyfriend, I don't think it affects the course, as such. I'm quite good at sort of separating, I would say, the course from my sort of personal life. I try not to sort of let them mesh too much. But yeah I would- honestly I don't think it affects it at all. I don't let it sort of... I try to focus on what I'm doing and just sort of think this is the time for my personal stuff, this is the time for my work stuff.

John: Yeah.

Participant: I think I'm quite good at sort of separating things, so yeah. I don't think it causes me much stress, to be honest. I deal with it okay.

John: Yeah, Okay. And so what about the other way around do you think the course is affected by it?

Participant: Do you mean like the course affects my relationship with the people or?

John: Yeah, yeah.

Participant: Yeah, that way around?

John: Yeah, sorry.

Participant: I am... I don't- I think I've got it down okay. I think I'm alright with it. I don't try and- I try to keep things as equal as possible because although the course is incredibly important to me, obviously having people around me to support me and having successful relationships with people is incredibly important as well and I know that obviously if I spend too much time following all of my energy into the course then the relationships will undoubtedly such there, so I try to keep everything sort of equal as much as possible. So I think I'm managing okay with that... I think. But maybe their opinions might be different, but from my perspective, at least, it feels as though I'm doing okay with that.

John: Yeah, you mentioned your- so your partner and your family. What about your friends? How do you think that dynamic is between the course and...?

Participant: I'll be honest. With friends- I mean because my main group of friends- I grew up in Cornwall, so before I- I moved from Cornwall to Bristol for my first degree- and then obviously here for Cardiff, so they're all sort of spread around. People that I consider my closest friends are all off living their adult lives in various different cities so I keep contact with them when I can, but I'll admit that isn't often at all. I don't know whether the course as such has- that it's affected my friendships. I still feel as though I'm quite close with those- the people that I grew up with, but with regards to, say, friends that I've met through university this time around, I mean- I'll be honest- It's because I'm living in student halls basically, and because I'm a little bit older it's quite hard 'cause they're all quite young so I'm kind of on a different level- not a level- a different page then, I guess. My life is in a different place and they're more about the going out, getting drunk, doing all that kind of thing, whereas I've done all that before. I do get along with people. I get along with most people but I don't feel close to any of them, if that makes sense. Yeah, so I... I kind of just sort of- with regards to people around me on the course I just sort of- I don't shut them out, obviously I'll talk to with them and what have you, but I'm not really close to any of them. But that doesn't really bother me. It's... yeah I just came into this course with attitude that if I pick up friends along the way that's great, but if it doesn't happen it doesn't matter because at the end of the day I want to be a nurse so... yeah.

John: So what about the cohort? What's the actual- because you- when you talk about friends on the course are you talking about flat mates 'cause...?

Participant: A bit of both because they are a mix because the people that I live with- which- they're all healthcare students but not all nurses.

John: Alright okay. So you live with the same...?

Participant: They're all healthcare related but not all nurses. So... yeah. But the cohort themselves- I mean I've met a lot of people that I think I get along with but I- because I don't live with them I don't see them as much as maybe i would like to. It's quite hard to sort of build friendships, particularly when you're on placement and then if you're not living with them when would you see them- kind of thing.

John: Yeah... okay. So have you found the course harder or easier so far... than you expected?

Participant: Easier, if I'm honest. The actual- the academic part, particularly. But I imagine that's because I've already done a degree. Because as I'm sure you're well aware of, seen as level 4 level 5 level 6, so obviously I've done that before so then going back to level 4 again- I thought oh maybe I won't be as good at it 'cause, you know, there's a different kind of writing, and all that kind of thing. But no, I've not been bothered by it at all, surprisingly. Yeah, I've found it easier than i thought.

John: I can see the... What about the clinical side?

Participant: The clinical side... harder. Because I've never had any healthcare experience before. I just thought- I tried to sort of look at my self- I think I've got what it takes to go into that kind of a field. But because I've never tested those skills practically I wasn't sure. So, it was harder- it was hard to begin with, particularly the beginning of my placement. I was just like, "I don't know what I'm doing, I've got no idea". But as I sort of found my feet and got a bit of feedback from people, I think I'm doing fine- I'm doing okay as far as I'm aware. But yeah, It's been... not... Just I'm kind of... I think I got my expectations kind of right. I knew what I was going in for, and yeah, not harder at all really, kind of just what I expected from the clinical side of things, I think.

John: Okay, so what placement are you on at the moment?

Participant: It's a community- It's called the asserted outreach team. It's down and based in the Hamadryad center down in Cardiff bay. It's basically a... it's kind of like a community mental health team, it's a lot smaller there's only 8 or 9 people in the team and it's for clients that are really difficult to engage- won't engage with other mental health services. And yeah, it's kind of just- a lot of homeless, a lot of drug use, mostly diagnosis of schizophrenia or schizoid type illness and a lot of people in denial of what the issues that they have are and just trying to help... It's only a really small place though, like 25, so you spend a lot of time with people just like helping them with their lives and helping them get bettering them selves and more direction and such.

John: Okay, how long have you been on that?

Participant: Since the beginning of January, so I'm in my... I don't know... I think I've got- after this week I think it's 4 weeks left. So it's a 12 week placement but you have two weeks dotted in other areas. It's 10 weeks overall in that one place but then you get two weeks in different fields.

John: Okay, so you've probably been working in that sort of unit for... 5-6 weeks?

Participant: It's been about 5 weeks i think... 5-6, yeah.

John: Okay, how's the sort of relationship with the people that work there?

Participant: I get along really well with them, I've settled in really well. I'm already gutted that I have to leave because I really get along with the team there and... Yeah, I've had no problems what so ever with them. I've really enjoyed working with them and if I could I'd just drop the course and work with them now, but alas I will carry on so... But no, it's been really good.

John: That's good. What about the mentor?

Participant: She's lovely. To be honest, I haven't seen an awful lot of her because there is such a small team and they are all off doing different things, but I've seen- I have to spend as much time time with her as possible, obviously, but she's been really helpful, really supportive, very- she knows what she's doing, so yeah I get along really well with her, as well.

John: Okay. And do you think the course prepared you well for...?

Participant: I think so. I mean there were bits and bobs that could have been better. But I engage really well with all the theory stuff and I really enjoyed it all so I think I was just as prepared as I could've been. Yeah, I mean I did do a bit of extra reading here and there but obviously that's expected of you. But yeah, I think it did. I'm sure other people will disagree with me but... yeah.

John: Okay. How's the relationship been with the clients? Have you gotten to know any of the clients?

Participant: Yeah, yeah. It can be difficult at times because obviously they don't really- a lot of them aren't really interested in seeing you, which can be difficult, and you know there can be a lot of... 'cause I'm always with somebody, obviously, but there can still... there's... and when I say with somebody I mean, like, someone on the team. I'm never on my own just to be left with the clients, but it's been interesting mostly because a lot of the time they just don't really want to talk, so- and I think that's more awkward for me than it is for them. I'm sort of sitting there thinking "I really want to say something, I really want to say something", but they don't really... They're just like "mm, yeah, no, whatever"- kind of thing, 'cause they're not really interested in engaging, so it can be quite hard. But, I've learned that that's okay, that's fine, that's... that it can happen. Some people are chattier than others, that's fine. I've always thought it was something wrong with me, am I not saying the right things or what have you, but I've come to realize that that's not the case at all, that they're the same with everybody. It's not just me. So yeah. I found that difficult in the

cases but I know that I can get along- some people I get along with really well, other people, they- you know- they don't take you as well. But that's fine. It's life, isn't it?

John: Yeah, okay. Have you ever felt like you've been- in the six weeks- in a vulnerable position?

Participant: No, not at all. Not at all. I mean they're all considered high risk but because of past instances of- what have you, and... But I've never felt at risk at all, no. I've never felt as though I was put in a vulnerable position.

John: Okay and what about your relationship with other people. Do you think they're accepting of students?

Participant: There, that was something that I was concerned about with- are you talking with regards to the clients or with the...?

John: Both, yeah. Actually, yeah. Are the clients accepting of students?

Participants: Oh but- yeah okay. So the team that I'm with, they're accepting of students. They've had- I'm their fourth, I think, student that they've had. And yeah, they've been really good with me. They seem to... They kind of just carry on, as though, I- you know they don't- I'm included straight away. They've never excluded me from anything, which has been really nice. I've felt really accepted there and apparently all the other students that have been there have always given good feedback and I will definitely be giving good feedback at the end of it, as well. With regard to the clients, I was worried about that. I was thinking that these people are difficult to engage by nature, apparently, and I thought: well, they'll probably think "oh great, another new face, a student, meh". But they've all been okay, actually. There's one gentleman who... one of his delusions is around students so I haven't met him, which is fair enough because that could put me at risk. But umm... everyone else has been fine. Yeah, not a problem at all.

John: And have you felt that as a student you could still voice your opinion in anything?

Participant: Yes. Yeah, definitely. I've not felt afraid of doing that at all. I thought I tried- they always say to try and engage me as much as they can because obviously I'm a fresh pair of eyes and they see that I could be useful to see things that they might not have seen. Because they've worked with the same people for a long time,so maybe I can see something new. So yeah, I've felt as though my input has been valued most of the- all of the time, actually.

John: That just answered my next question: Do you feel valued?

Participant: Yeah! yeah... I do feel valued. They have- yeah they've all been really lovely and they've given good feeback so... Yeah I feel as though I have been valued. Yeah definitely.

John: Good. Sounds like a positive experience.

Participant: Yeah definitely.

John: So, there's been no members of staff who have made you feel unwelcome or?

Participant: No, not at all, not at all.

John: Okay, great. I'm sure I've asked you in third year.

Participant: *laughs* Yeah, I bet.

John: Have you been asked to do something that that you haven't felt comfortable doing?

Participant: No! I mean, not at all. I'm just... let me think... No- I've... no. I haven't. I mean, a lot of it is... It's just talking with people, really, or helping people with their daily tasks and stuff, and because you're always with somebody- with another member of the team- I've never been delegated a task where I've thought: "Oh god no, I can't do that". But if I was, then I feel as though I would be able to say, "Oh I'm not sure if I can or should be doing that"- kind of thing. But no, I've not had that at all.

John: Okay. And you feel that your expertise in terms of where you're coming from is suitable for this placement? Do you think it's a suitable first year placement?

Participant: Well, this is another thing that I was kind of thinking about because when I was first allocated the placement and I- it's called the asserted outreach service and I said- and I thought "what's that?" I was like, "it's there for you to find. You just can't be bothered and I'm not your personal diary", yeah... I guess it got frustrating, but yeah.

John: Okay. So you're the student support?

Participant: Yeah! Well, I am a student rep as well, so... Maybe I shouldn't have signed myself up for that role. Because I can't be bothered. I'm like "no, do it your self"!

John: In terms of your personality, how... would you say you're more extraverted or introverted?

Participant: See this is an interesting thing. I often think about this. Like... At times I feel like I'm quite introverted... I do... I- It's difficult because I enjoy a lot of time on my own. I feel I need that quite a lot. But at the same time I do enjoy spending time with other people, but I don't... I can't deal with overexposure, if that makes sense. I feel very much like "oh god, I've had too much time-" particularly in lectures in the beginning of the year it was 9 till 4, near enough, everyday from Monday to Friday- I was like I'm sick of you all, I need to lock myself away for the weekend- kind of thing. So it's a bit of both really. I don't really... I don't know which one I lean towards more. I'm not sure, I don't know. A bit of both really. But...

John: Would you say there's a difference between the way you are at home and the way that you would be on the course and work?

Participant: Definitely! I'm...

John: Yeah... In terms of personality?

Participant: Absolutely. Yeah, I think on the course... I probably seem really bloody boring, to be honest, because I have got- I feel like I've got my head straight on. I've got this- I know what I need to do in my mind. It's to complete this course to the best of my ability and become the best mental health nurse that I can be and that's my focus when I am on the course and it probably- it made me... I'm not a boring person, I know myself that I'm not, but I feel as though people might perceive me as that, because I am so sort of focused on what needs to be done, and... yeah I think quite a lot of people don't realize what I'm actually like, really. So I can be fun! I'm alright! I'm quite, you know, laid back. I might be, but people don't often see that, i think, maybe behind my sort of- I try to come across as professional as much as I can when it's needed, so whilst I'm at uni or obviously whilst I'm on placement, but I'm not sure whether people get to see my actual personality, really, unless I'm sort of... I know people well. I'm quite guarded when I don't know people that well, and yeah... Maybe my attempt at professionalism kind of masks my personality sometimes. Maybe, but I try not to let it 'cause I know it's important to let you personality come through as well. Otherwise you might just seem stony and cold and like... evil or professional but yeah.

John: Okay. Do you think that sort of focus that you were talking about, do you think that's because of your experiences?

Participant: Potentially yeah. I mean I just think it's... I know that what I'm going into is incredibly important and- yeah I'm only in my first year, but I'm in a very privileged position, where a lot of people applied for this course and a lot of people didn't get on that wanted to and I did, and I think I'm not going to take advantage of that. I know that I'm lucky and I know what I want to do and I'm going to take bull by the horns-kind of thing, and soak in all the experience that I can take. I just... yeah so I guess that's probably where the focus is from. i'm just sort of- I know how lucky I am and, yeah, from my experiences in the past what an important role a mental health nurse can be for people so... yeah. I guess that it's linked, definitely.

John: Would you say you are a bit of a perfectionists?

Participant: Yes. Absolutely. Yeah, I'm not as bad as I used to be. I used to be absolutely terrible. I just... If something wasn't perfect in my eyes I just thought well no point of doing it that's it I'll just give up-kind of thing. But I can manage it a little bit better at my age. I know that people aren't- things aren't going to be perfect every time and it's okay. That's fine and that's alright. I'm not one of those people who are like I have to get a first I have to get a first if I don't then I'm a failure. No, I'm not like that. No, not at all. Like just try to take rough with the smooth these days but it still niggles there, it is still there but yeah, I try to reign it in a bit.

John: Yeah. How do you think- do you think that impacts on your stress?

Participant: Umm... Because... I would say yes definitely when I was younger but I do think that I can manage it a lot better now. With regards to stress I wouldn't... i'm not sure I'm ever that stressed anymore, to be honest. When I- If you'd asked me these questions three years ago then yes but I do think that with my age I've realized that I don't need to be as stressed as I have made myself in the past. So yeah.

John: Okay. Do you think your experiences will make you a better mental health nurse or...?

Participant: I hope so. I hope so. That was another thing I was kind of worried about. I sort of thought "oh is this going to be too difficult for me" because I'm just going to be too sensitive, in a way, because I think "oh god, this poor person here or these poor people". Because it's going to hit home to me. I mean I haven't dealt with anyone with an eating disorder yet and, obviously, that was worst time for me and I don't know how I'm going to deal with that when the time comes, because it's going to, of course, but... we'll see, we'll see. But I hope it'll make me better 'cause I'm hoping it'll make me more empathetic, and such, but I hope that I can manage that in the way that I don't want to become attached obviously. That's a... I think I've been okay so far with stuff. I mean I have gone home sometimes and thought "oh god that was really-", a particular visit might have been really difficult just because the person was in such mental sort of pain that I went home- I went away and thought "god I'm worried about them" but I'm still sort of learning to switch off from those experiences i think. I'll do what I can. Go back the next day, do what I can again, switch off. Yeah. Well, I hope it'll make me better.

John: Do you think the course helps you switch off? Do you think...?

Participant: The course? In... it's hard to switch off from, in a way, because particularly on placement- say if I was just doing placement I didn't have any academic work to do. I could go home, you know put what I did during the day in a box, relax, go to bed, wake up, do it all over again. But because you have to come home- most of the time you've got something to do, essays or what have you, or today I've got a mock exam to do for medications management thing, so even on your days off there's always something taking over that you have to do academically, so there isn't really a time to switch off. You might be switched off from placement but you're not switched off from the academic side of the course. It's quite hard to switch off from both.

John: Yeah. So do you think that- have they sort of taught you any techniques to help you switch off?

Participant: No. No, not yet. No, no.

John: No? Okay. Do you think that would be helpful?

Participant: I would- yeah, I would say so because I do think... well, some people find it hard to manage, I might be one of those, but other people seem to have no problem with it at all, so I guess maybe like a something like a work shop or a drop in or something for people might be useful. Yeah, I would say so.

John: Okay. Do you have- what sort of coping strategies do you use, do you think? Positive or negative?

Participant: Coping strategies... I don't... it's really hard to sort of think, like, what do I do? What coping strategies do I have? I don't know 'cause I feel like I cope quite well, but I don't know how. I feel like I cope quite well but I don't know how I'm doing it, so it's quite hard to pin down, umm...

John: So what do you do to relax? Because I guess that's the thing really, isn't it, that you're able to...?

Participant: To be honest, I do absolutely bloody nothing. I just sort of sit down, I'll have a long hot shower, just lie in bed, light a candle, watch a film, read a book, just something to just... yeah. I just try to do nothing for a while to sort of let my brain wind down, just sort of... Because during the day thoughts go just "ba ba ba ba" all the time, so just stop for a minute and give me some time to myself. I- yeah, I don't wind down by spending time with other people like I've hinted out already. I just have to have time on my own. I think that's what I've learned. That's probably a coping strategy, just spending time alone for me, just for me, do what I want. Yeah, I think that's probably what it is. Maybe that is my coping strategy.

John: Okay. Do you drink?

Participant: No. Once in a while. Not during the week at all. At the weekends... I've not... gone out like drinking for months now. It's... I did that when I was 18, 19, you know. It was kind of like- that doesn't really help me anymore. No, I wouldn't say. But I'll have, like, one... like a glass of wine here or there, or a bottle of sider here or there but not often.

John: No? Okay. Do you smoke?

Participant: No. Not at all. Never have.

John: So you wouldn't say that there's any sort of dependency that you have to sort of... drugs or..?

Participant: No. I wouldn't say so.

John: Do you exercise a lot?

Participant: No I don't. I wish I did. It's something that has just gone with time. Someone on the bus sits down as I.. She's like ohh okay, she's like "do you ever walk outside now" and I was like I wish I did, I wish I did, but I don't. I would like to get back into that kind of thing but it's something that I'm a little bit weary of because obviously with my past with eating disorder kind of stuff and obsessive kind of behaviour around exercise, I'm a bit weary of getting back into it. But maybe in time. But money as well, because I hate running outside, can't bear it. I could only go- I would have to pay for the gym... and... yeah, I've come up with all sorts of elaborate excuses to not exercise but should just get to it, really.

John: Okay. Is there anything else that we kind of haven't discussed which has been- you think has been so far particularly stressful?

Participant: Particularly stressful...? I'd say honestly the only thing that has really just stressed me out are the people on the cohort around me. I don't... the thing ... the most stressful thing that has happened to me is- people are... basically we have registers, I don't know whether you're aware of that, that you have to sign every time you go to a lecture, 'cause obviously you have to do a certain number of hours to qualify at the end of the three years, but the people are always bloody forging people's signatures of people who aren't there and it drives me around the bend. I was just, like, "nope I can't deal with this anymore, people are doing this all the time"... I let someone know, I let a lecturer know and passed it on and yeah... I- that really stressed me out because I thought that these are people that, you know, they're my peers. I feel like, you know, you're dopping(?) them in but i know that I did the right thing but i still felt bad because I thought people are just going to- as soon as they get an email through saying oh we need to hold a meeting because we are aware of this happening they're going to be like "oh I know that she dopped them in, I know that she dopped us in". Because I've got that kind of air about me, because I've got such a sort of... I'm so sort of... I take everything so seriously and like professionally that I think that people just know that I'm just kind of like that and it really stressed me out. It's happened a couple of times and it did happen- one of the girls did think "oh yeah, well i know it was her anyway, I can just tell it is" and I was like, "well this is awkward" and since then my relationship with her hasn't been great because she knows that I've done that, even though she's... She's never really explicitly asked me, of course. I would be honest with her if she asked, but you know just chinese whispers and stuff and that's the annoying thing. That stresses me out but... I've tried to just sort of push that aside and think "well, I know I did the right thing" so it's... i'm not in the wrong here, so it's fine. But yeah... That was probably the most stressful thing so far. Yeah.

John: Okay. I think that's plenty, yeah. I think I've... mentioned everything... You haven't mentioned your personal tutor? How much interaction have you had with them?

Participant: A fair amount. We... I've seen her... she.... I saw her a couple of times, 2 or 3 times in the first term before we went out on placement. I've seen her once before placement and now I'm seeing her next week I think, which is like a mid placement kind of thing just to check up on how I'm doing. But yeah I really get along well with her. She's been good. I've had a lot of- I've emailed back and forth a lot and she's very good she responds and she's very supportive.

John: Okay, so you've had no problems with her...?

Participant: No, not at all.

John: What have been the main highlights then?

Participant: Highlights of the course or...?

John: Yeah.

Participant: Ooh... Highlights... Well being on placement definitely is, as I'm sure you could tell already. I've had a very positive experience of that and I've learned a lot about myself and just in the last, you know, two months i feel like I've learned so much about myself and what i can do which i never thought I was able to do, and it's really, like, boosted my confidence 'cause I... I don't know, I'm... People always tell me I'm a confident person but I don't really feel as though I am inside, but i realize know that I can be. It's alright. I'm competent enough, I'm good enough to do this kind of thing. The placement's really shown me that. Highlights other than that... Getting results back, to be honest, from essays and such 'cause I... with my first degree I did okay, I got a 2:1 at the end. That was- I was pleased enough with that, it was alright, but because obviously with the drop back down and i'm used to writing academic essays now, my results are just... not like I would've ever have imagined. Like, "woah! I didn't know I could write that well"- kind of thing. Yeah, so getting results back has boosted my confidence and been a highlight as well.