Sheffield Hallam University

A Sheffield Hallam University thesis

ProQuest Number: 10701301

ProQuest 10701301

Character Strength and Stress Management in Academic Staff:
A Positive Psychology Perspective

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A thesis submitted in partial fulfilment of the requirements of

Sheffield Hallam University

for the degree of Doctor of Philosophy

October 2013

Declaration

I hereby that this thesis had not been submitted, either in the same or different form, to this or any other university for a degree.

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Abstract

This research programme aimed to explore why some academics cope with stress better than others and so preserve their well-being and mental health. A positive psychology perspective was adopted. Mixed methods were applied, with a quantitative study and two qualitative studies. Study 1 focused on the relationship between character strengths, stress, subjective well-being (SWB), and mental health (GHQ) in a sample of 216 academics. Hierarchical multiple regressions showed that psychological strengths of gratitude and hope agency were predictive of SWB and mental health. Stress had a negative relationship with character strengths, satisfaction with life, positive affect, and mental health and a positive relationship with negative affect. Tests of interactions between stress and character strengths with subjective well-being and mental health revealed that higher levels of optimism had a buffering effect on mental health (GHQ) when the levels of stress were higher. Sense of coherence as a work coping variable negatively predicted stress at work. Problem-focused coping negatively predicted stress while denial coping positively predicted stress. In a follow-up qualitative study of 31 academics, the following sources of stress were identified: the increased number of students, heavy workloads and administrative burdens, poor management, funding cuts, job insecurity, and threats from the government on the pension scheme. Support from colleagues and time management were identified as the most positive coping sources. Teaching and research were the most valuable elements of academic work and administration was less valued. A positive psychology intervention (the Three Good Things) was conducted in a sample of five academics. The aim was to evaluate the experience of participating in the intervention. The data from research diaries and a focus group discussion showed that colleagues, friends and family, presenting at a conference, and data collection and analysis were the most positive experiences among academics. Academics believed that the positive psychology intervention was useful in shifting their attentions from negative to positive thoughts. A non-parametric statistic was used to analyse the data from pre-assessment, post-assessment, and two week follow-up measures of stress, subjective well-being, mental health, and gratitude in Study 3. The Friedman test found no main effect on the intervention; however, satisfaction with life was the only variable that significantly changed over time in the intervention. The results of this research programme contribute to a limited body of knowledge on how psychological strengths, coping strategies and work coping variables may reduce stress and increase well-being and mental health. The research also provides recommendations for future research.

Acknowledgements

This thesis dedicated with love to my parents. I would like to express my sincere gratitude to my director of studies Professor Ann Macaskill for the continuous support of this PhD research programme, for her incredible knowledge, patience, kindness, and enthusiasm. Her guidance helped me in all the time of research. I would also like to thank Dr Lisa Reidy for all her advices and encouragements. My sincere gratitude goes to my parents for their spiritual supports and unconditional love in my life. I also thank my sisters and brothers especially Ali and Dr Fariba Darabi for giving me love and supporting me. I would like to thank Dr. Shuxin Li and Rebecca Hancock for their friendships, and Mr Lee Wallace for his support (resource department). Finally, my special thanks to all of the participants, without whom this research programme would have not been thinkable.

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Chapter 1 General Introduction

1.1 Previous experiences and development of interest of this area

There are many reasons that influenced my desire to do research using a positive psychology approach. My educational background and personal experience both influenced me to do research in this area. My dissertation in my first degree was in clinical psychology and it examined coping with stress comparing first year and final year university students. As a postgraduate student at Masters Level, I looked at the levels of stress among teachers as a piece of coursework. I also investigated the relationship between social support and health and well-being among clinically ill and well individuals for my Masters dissertation. After graduation, my job experience was another key factor that helped me to develop my applied knowledge of psychology as a lecturer and counsellor at a university. Through work I had many clients who suffered from anxiety and depression and were not happy with their lives. I found that their assessment of life was more pessimistic rather than optimistic. This inspired me to increase my limited knowledge of positive psychology. As a result of these experiences I decided to do a PhD to explore the relationship between optimism and success at work. However, during one of my visits to the UK I submitted a proposal to the university and eight months after submission I started this project. It is worth mentioning that as English is not my native language it was very challenging for me having to cope with a new educational system that was completely different from my background and also coping with a new culture. During this journey I have learned about the positive psychology perspective with its focus on positive strengths and well-being. The approach has influenced my attitude towards events in terms of how to appraise events that may be stressful and cope positively with them when abroad. I am very pleased with my decision and still want to carry on increasing my knowledge in this area and contribute to knowledge to develop the positive psychology perspective further.

1.2 The importance of research in stress utilising a positive psychology perspective

MacLeod and Moore (2000) defined health based on the World Health Organisation's conceptualisation as "a state of complete physical, mental, and social well-being not merely the absence of disease or infirmity " (WHO, 1948, P. 28; MacLeod & Moore, 2000). Traditionally psychology focused on psychopathology and on individuals who suffered from the negative outcomes of stress. A positive psychology approach was adopted in this research programme to explore well-being.

Stress is almost inevitable in many circumstances and in particular at work but the way that individuals appraise it is potentially more important than the stress of an event. Eustress or good stress has been regarded as an adaptive reaction to a situation that is evaluated as a positive or negative threat to individuals' well-being (Elo, Ervasti, Kuosma, & Mattila, 2008). According to a report by the Health and Safety Executive (2008) in the UK the levels of stress among nurses, teachers, and academics are statistically higher than in other occupations (Reis et al., 2010).

Work-related stress has been dramatically increasing among UK academics (Kinman, Jones, & Kinman, 2006). The consequences of stress can affect individuals' physical health, well-being, and their performance within an organisation. Most of the studies in the stress research literature focused on negative aspects of stress. A lack of research focusing on how academics cope positively with stress at work is therefore evident. I was keen to examine whether individual differences in relevant positive psychology variables are related to stress and well-being and mental health among academics.

1.3 Aims of the research study

The main aim of this project is to investigate why some academics cope with stress at work better than others and thereby preserve their well-being and mental health. To achieve this aim three studies have been undertaken. A positive psychology approach has been adopted here. Study 1 focused on exploring the relationship between character strengths (hope, optimism, gratitude, and self-efficacy), stress, and well-being in academics. These specific character strengths were selected because of their significant association with well-being in other groups. Study 2 was a qualitative study to explore in more detail stress and coping at work. The aim of Study 3 was to evaluate the effectiveness of a positive psychology intervention in increasing well-being among academics. However, it proved impossible to recruit enough participants for a controlled trial. The plan changed and a small number of participants were recruited to undertake a positive psychology intervention. The aim therefore became to examine how these participants experienced the intervention and how they evaluated it. This data was collected using a focus group interview. The Three Good Things exercise developed by Seligman, Steen, Park, and Peterson (2005) was selected for the positive psychology intervention (Seligman et al., 2005). This intervention was selected as it has been shown to further develop subjective well-being. Furthermore, how individuals feel about

participating in positive psychology intervention (the Three Good Things) has not previously been explored.

1.4 Personal development as a researcher

My background in terms of using research methods in psychology was in quantitative methods but as an undergraduate I was not trained using computer software for analysing data. I therefore developed my skills in quantitative methods and the use of computer software by attending statistics and SPSS classes that were modules for Masters students and undergraduates respectively. Through this research programme, I have used a variety of quantitative methods of analysis. I have also become aware of some of the strengths and weakness of different designs and the rationale for their application. I also learned how to analyse data from qualitative research by attending an NVivo (qualitative data analysis software) workshop although the qualitative data in this research was analysed manually as the volume was manageable (see Chapters 5 & 6). I also undertook training in research ethics. I have presented at conferences within the university. Throughout this programme of research I have attended English language courses organised by the university for international post graduate students (specifically PhD researchers) who are not native English speakers. This course in particular helped me to develop my knowledge of academic writing language, style, and presentation.

1.5 The structure of thesis

The thesis consists of seven chapters. In Chapter 1, a brief explanation of the researcher's background, the importance of research in this topic, aims of the research, researcher's personal development, and the structure of thesis in general is provided.

The emphasis of Chapter 2 is on reviewing the literature on stress and its influences on well-being and mental health. The conceptualisation of well-being and mental health is discussed. This chapter introduces the transactional model of stress and coping as a fundamental framework for this thesis. Reviewing all the literature on stress was beyond the scope of this thesis so the focus was on reviewing the research on stress in academics as this is more manageable. The literature on character strengths previously associated with well-being and mental health in other populations is discussed. A critical evaluation of the positive psychology approach is included in this chapter.

Finally, this review of research ends up with a review of the positive psychology intervention literature.

Chapter 3 provides a discussion of the methodology that covers the three methods that have been used in this thesis. The quantitative section has focused on different types of design and evaluates the cross-sectional design selected for use in this research programme. Different philosophical approaches underpinning qualitative research are presented. The rationale for adopting a Critical Realist perspective in the qualitative research is presented. This chapter expresses the rationale for using an intervention study and explains the rationale for conducting a focus group discussion.

Chapter 4 consists of the quantitative research study that investigates the relationship between stress, character strengths, coping strategies, work coping variables, subjective well-being, and symptomatic mental health. This chapter also provides the research questions and hypothesis sections for the research programme. Background to the research topic, measures, procedures, and the rationale for thesis are also included as is the research ethics approval. The data were collected by using a standard online questionnaire.

Chapter 5 reports a qualitative research study. A structured interview is implemented to investigate academics' perspective of their work environment. The data were collected via an online interview as this was less time consuming for academics than face to face interviews and allowed participants to be completely anonymous.

In Chapter 6, the positive psychology intervention study is introduced but here the main aim is to explore individual's experience of completing the intervention. The Three Good Things exercise was chosen for this study as it is said to increase gratitude which was a significant variable in Study 1. Furthermore, Seligman et al. (2005) suggested that future research should focus on the Three Good Things exercise because they claimed that it makes individuals happier over time. This chapter comprises two qualitative parts and one quantitative part reporting the results of the measures recorded by each participant as they completed the intervention.

The overall discussion is covered in Chapter 7. This included the general evaluation of the findings, limitations, and conclusions of this research programme. This thesis finishes with a description of the original contribution to knowledge and some suggestions for future research in this area.

Chapter 2 Literature Review

This chapter reviews literature focusing on the transactional model of stress and coping as the framework adopted to examine the levels of stress among academics in this research programme. It concentrates on a positive psychology approach to find out how character strengths help academics to cope with stress at work to preserve well-being and mental health. This chapter also includes positive psychology reviewing a selection of character strengths, subjective well-being or happiness, and positive psychology interventions related to increasing well-being.

2.1 Theoretical agenda of stress

Stress definitions

There is an increasing interest in identifying stress and its effects on well-being and mental health (e.g., Cohen, Tyrrell, & Smith, 1993; Reis, Hino, & Rodriguez-Anez, 2010). This has led to an agreement that stress can affect individuals' well-being and health in the research literature (Reis et al., 2010). Despite this, for a long time there was no consensus on how to define stress among researchers; as a result, several definitions of stress emerged in the literature (Davis-Martin & Brantley, 2004). Barron Lopez (1997) suggested three definitions of stress. Stress as a *stimulus*, as a *response*, and as an *interaction* (González Vigil, 2005). Stress as a stimulus refers to any circumstance that stimulates change in the homeostatic process. This definition was not free of criticism as it does not consider individual differences in response to the same circumstances or situation. There are many situations that result in changes of the homeostatic processes that are not stressful for example, breathing. Stress as a response is defined based on the responses that are stimulated in the organism. This definition also has been criticised as there are both physical and emotional responses that can fit within this definition but which result from non-stressful circumstances; for example, sporting activities. Finally, stress as an interaction refers to relationship between individuals and their environment. This definition includes stress as a stimulus or stressor, as a form of bodily reaction or response, and as an interaction of all these elements (González Vigil, 2005). This definition of stress developed in the *transactional model of stress* by Lazarus and Folkman in 1984 (Davis-Martin & Brantely, 2004) and is adopted in this research.

The aim in this research is to focus on how academics cope with stress, particularly the positive aspect of coping with stress and to examine the role of stress and coping on well-being and health among academics. Coping with stress will be discussed later.

The transactional model of stress

Lazarus (1966) defined stress as a consequence of interaction between individuals and their environment. He identified a range of concepts that can be used to explain the relationship between stress and coping. This includes a focus on the person and the environment that represents the relationship between individuals and their environment; cognitive appraisal which explains how a situation comes to be perceived as stressful and can explain individual differences in the perception of stress; coping responses and adaptation outcomes that refer to the adjustments or coping strategies that individuals are likely to use. However, Lazarus (1966) emphasised the importance of the cognitive aspect of stress rather than purely focusing on the physiological aspect. While physiological factors are acknowledged within the model, the model does not provide an adequate explanation of how these functions work. However, it is the most widely used model in stress research and is considered to provide a better conceptualisation of the complexities of the stress reaction than other models (Bartlett, 1998).

To summarise, the associated definition of stress conceptualises stress as a consequence of interactions between individuals and their environment; coping responses are produced and adaptation outcomes result. This emphasis led to identifying cognitive appraisal and coping as the significant mediators of the transaction between individuals and the environment (Galvin & Godfrey, 2001). Folkman, Lazarus, Dunkel-Schetter, DeLongis, and Gruen (1986) believed that how events are appraised is more important than the objective events themselves, thus emphasising the subjective element of the assessment (Folkman et al., 1986). The transactional model of stress uses a framework based on "stress and coping" to define stress and understand stressful events (Folkman et al., 1986). Within this model, appraisal is conceptualised as a cognitive process to evaluate events in the environment

As previously discussed, stress is defined as a transaction between an individual and the environment sometimes called person-environment fit (Elo et al., 2009). For instance, if a person is exposed to potential stressors such as an exam or having to give a public talk, the degree of stress experienced is determined by *primary appraisal* of the event (is it

stressful?), and followed by his/her *secondary appraisal* of personal resources to deal with the event (will I cope?), (Ogden, 2004). This model is shown in Figure 2.1.

Within this model, in *primary appraisal*, individuals evaluate the events in four possible ways: (a) irrelevant, (b) harmless and positive, (c) harmful and a threat, (d) harmful and a challenge. In *secondary appraisal* individuals show their positive and negative evaluations of their coping strategies to overcome/prevent the negative outcomes of stress. To summarise, the primary and secondary appraisals are regarded as the cognitive processes to determine whether the person environment transaction is a threat or challenging for the individual's well-being (Folkman et al., 1986).
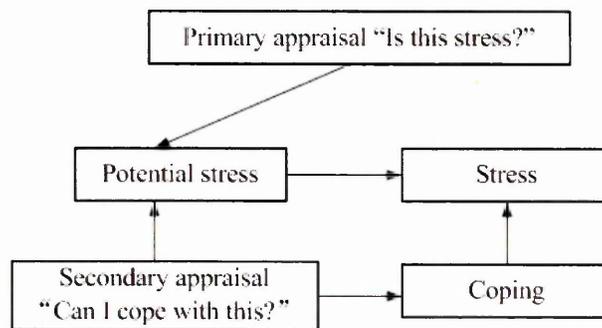
Figure 2.1 The role of appraisal in stress (Ogden, 2004).

In a review of stress literature, Galvin and Godfrey (2001) suggested that appraisal and coping are two elements that mediate the relationship between stressful daily lives and psychological adjustments. Coping strategy will be discussed later.

2.2 Academic stress

There is now an acceptance that certain levels of work stress are inevitable, so employers should be promoting the psychological well-being of their employees to help them cope better with stress (National Institute for Health and Clinical Excellence/NICE, 2009). Job-related stress has been shown to be an influential factor determining absenteeism, turnover, and reduced productivity at work, health issues causing more than 15 million working days to be lost annually in the UK (Jonge, Mulder, & Nijhuis, 1999). An estimate suggests that stress is costing UK employers £1.24 billion annually (e.g., Health and Safety Executive, 2003; cited in Gyllensten & Palmer, 2005). It is estimated that stress at work has resulted in 12.8 million working days being lost in the UK in 2004 and 2005 (NICE, 2009). These reports show the importance of examining stress in work environments.

The Health and Safety Executive (HSE) in the UK has started to pay more attention to the higher education sector to reduce stress since 2004 (Court & Kinman, 2010). Thus, stress is a challenge for employers to tackle. Weinberg and Creed (2000) found a significant relationship between stress at work and mental problems particularly related to depression and anxiety disorders among healthcare staff.

There is some evidence to show that employees in occupations requiring high levels of communications and personal interaction (for example lecturers, teachers, doctors, and nurses) are more at risk of experiencing occupational stress (Reis et al., 2010). Similarly, Duquette, Kerouac, Sandhu, Ducharme, and Saulnie (1995) found that the negative effects of job stress on professionals in jobs like nursing, psychology, and counselling have been increasing (Duquette et al., 1995). Recently, increasing psychological stress has been observed in UK academics (Kinman & Jones, 2003).

In the early 1990s, the Carnegie Foundation for the Advancement of Teaching (CFAT) carried out an international survey of academic jobs in 14 countries (Australia, Brazil, Chile, England, Germany, Hong Kong, Israel, Japan, Korea, Mexico, the Netherlands, Russia, Sweden, and the United States). The data was collected by Altbach from 1991-1993, and the results showed that financial problems were the commonest problem amongst academics (Abousarie, 1996). Gmelch and Burns (1994) in the U.S.A found that a heavy workload was the main stressor in academic staff. Blix, Cruise, Mitchell, and Blix (1994) found that a heavy workload was the strongest reason to change jobs for academics in the U.S.A. Other researchers more recently found funding cuts at university, increased teaching loads, lack of support, unrealistic expectation from management, and poor relationships with colleagues identified as job stressors by academics (Winefield & Jarret, 2001).

Fisher (1994) proposed that increasing expectations of academics to teach, meet students in tutorials and seminars, do experiments in laboratories, carry out research, apply for research funding, undertake scholarship, write papers and books, and carry increasing administrative loads, all have led to an increasingly stressful picture of academic life. The large increases in student numbers which were not matched by increases in staff numbers have exacerbated this (Gillespie, Walsh, Winefield, Stough, & Dua, 2001). Some researchers argued that as a result of reduction in university funding in some countries like the UK, Australia, and New Zealand, stress has significantly increased among academic staff (Gillespie et al., 2001). In a mixed

methods study, results showed that a lack of funding, resources and support services, heavy workloads, poor management and leadership security, lack of promotion and reward, and job insecurity were major sources of stress at work among Canadian academics (Biron, Brun, & Ivers, 2008).

Kinman, Jones, and Kinman (2006) have examined UK academics' well-being between 1998-2004 using quantitative and qualitative measures. Their participants for the 1998 study were 650 academics and for the 2004 study there were 844 participants. In both studies, participants completed anonymous postal questionnaires. These researchers found that the levels of stress had not decreased over the six years and many academics intended to leave the academic environment due to these increasing levels of stress. Academics in the qualitative part of this research expressed that they were not satisfied with their salary and the heavy demands of the job. They also found that the level of psychological distress reported by participants had not statistically decreased (Kinman et al., 2006). Other research examined the relationship between stress and well-being among academic staff in UK universities, showing that academics identified the heavy workload as a main stressor at work (e.g., Abouserie, 1996; Daniels & Guppy, 1992). Similar results were found by Kinman et al. (1994) in the UK; Dua (1994) in Australia; and Boyd, Lewin, and Sager (2009) in New Zealand.

Evidence has consistently shown that increased work stressors play a central role in the cause of illness and reduced work activities or functions (Smith, 2003). The *Guardian* newspaper in the UK reported that academics are -"underpaid, demoralised, stressed out, and de-motivated". The results were derived from a survey carried out for the UK based Association of University Teachers (AUT, 2003; cited in Tytherleigh, Webb, Cooper, & Ricketts, 2005). The survey found that 93% of its members (around 160, 000 academics) suffered from stress at work and 62% were extremely stressed (Tytherleigh et al., 2005). It is estimated that 27% of participants were fairly serious about changing their job, 46% reported that their confidence had decreased in the past two years, 72% were dissatisfied with pay, and 86% reported that their workload was too heavy (Tytherleigh, Jacobs, Webb, Ricketts, & Cooper, 2007). In a longitudinal research study, Gillespie, Walsh, Winefield, Stough, and Dua (2001) conducted a focus group study with a sample of 176 academics and general staff that consisted of a total of 22 focus groups (eight participants in each group). They examined staff (academics and general) experiences and perceptions of work stress and their view of its causes, moderators, and consequences in 15 Australian universities. Academics participating in this study

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reported that occupational stress had a negative impact on the quality of education and research in these universities (Gillespie et al., 2001).

Winefield and Jarret (2001) reported that psychological distress was high and job satisfaction was low among 2,040 academics that are doing both teaching and research. In this study, 65% of participants believed that funding pressures, heavy workload, and decreasing facilities and support for both lecturers and researchers are the most significant stressors at work. Other researchers have supported Winefield and Jarrett's findings albeit with lower percentages, with Dua (1994) in Australia (46%); Blix et al. (1994) in the U.S.A (40%); and Daneils et al. (1992) in the UK (39%). These are still significant figures.

Similar stressors among academics have been identified in national surveys in the UK (Kinman & Jones, 2003, Tytherleigh et al., 2007) and in Australia (Winefield, Gillespie, Dua, Stough, Hapuarachchi, & Boyd, 2003). The researchers report a lack of trust in institutions, job insecurity, and reducing sources to support academics in both countries. Some research also found that UK academics identified job insecurity as the most significant source of stress in 14 UK universities (Tytherleigh et al., 2005).

The results of a follow-up survey found that academics' stress has been increasing over time. The participants reported that psychological stress and work-home conflict have increased and job satisfaction decreased during the three years after their first participation in the study. The key point is that the universities in Australia had implemented changes due to the results of the first survey, but stress was still increasing (Winefield, Boyd, Saebel, & Pignata, 2008).

Much of the available literature about occupational stress among academics is related to research in North America (e.g., Blix, Cruise, & Mitchell, 1994; Gmelch & Burns, 1984), Australia (Winefield et al., 2003), and New Zealand (Boyd & Wylie, 1994; cited in Winefield et al., 2003). Despite the substantial stressors such as heavy workload, long working hours, poor pay, poor communication, role ambiguity, lack of recognition, striving for publication, providing support for students, and keeping up with the technological advances, some evidence has shown that academics are satisfied with their job (Winefield et al., 2003). There appears to be some conflicting evidence here. Academics report being overworked, under-resourced, and more stressed yet they report high levels of job satisfaction according to Winefield et al. (2003). Lacy and Sheehan (1997) investigated aspects of job satisfaction among academic staff in eight nations

across the world: Australia, Germany, Hong Kong, Israel, Mexico, Sweden, UK, and U.S.A. The results showed that the majority of participants (75.6 %) were satisfied with their job. They attributed this satisfaction to factors such as job climate or university atmosphere, morale, sense of community, and relationships with colleagues. Therefore, the current research programme aimed to explore what else might influence academics job satisfaction and how in terms of existing stressors they cope with work. The current research did not measure job satisfaction quantitatively although it will be considered qualitatively (see Chapter 5).

It appears that there has been a significant change in academic role expectations over the last 20 years. Kinman (1998) found a considerable change had occurred in the academic job environment in UK universities. The results of a study among 782 academic and academic-related staff of three institutions showed that the majority of participants believed that they experienced more stress at work compared with 5 years previously. Three-quarters of the participants reported that they worked more than the required hours. The researchers found a significant relationship between working hours, stress, and psychological well-being among UK academics. They proposed that long working hours increased the level of stress and decreased the level of psychological health among academics. Thus, academics' job stress has become a cause of concern as a result of increased work pressures and reduced support (Kinman, 1998). Some of the participants had seriously planned to leave their job (Kinman, 1998; Kinman & Jones, 2003). Kinman et al. (2006) provided a list of the reasons academics gave for leaving the higher education sector. These included:

1. Increased job stress;
2. Job insecurity;
3. Heavy workloads and conflicting job roles;
4. Poor management and increased bureaucracy;
5. Quality demands;
6. Less promotion;
7. Non-respectful environment for academic efforts;
8. Long working hours;
9. Poor work-life balance.

This research programme is in line with some earlier studies some of which have been reviewed above. The conclusion is that academic job stress has dramatically increased

and it is accompanied with psychological distress in several countries including the United Kingdom (Kinman et al., 2006) and Australia (Winefield et al., 2003). Some studies have shown that stress is higher in junior academics than in seniors (e.g., Abousierie, 1996; Winefield & Jarrett, 2001). However, Jacobs, Tytherleigh, Webb, and Cooper (2010) cited some research examining the relationship between stress and both physical and psychological health, reporting that academics in senior positions particularly women are more stressed due to lower pay, work demands, and heavier workload plus workload at home compared with men in similar positions (e.g., Bond, Punnett, Pyle, Cazeca, & Cooperman, 2004; Hogan, Carlson, & Dua, 2002; McInnis, 1996). However, Richard and Krieshok (1989) found no differences between both groups, although this was an early study (Jacobs et al., 2010).

Not all researchers assess the same factors or produce the same results making it difficult to compare studies in this area. As mentioned above, many researchers around the world and particularly in United Kingdom and Australia have made a significant contribution to research on stress among academics, identifying job stressors and these are summarised in Table 2.1 by year of research.

It can be concluded from Table 2.1 that Kinman's research (1998, 2003) in UK universities has made a significant contribution to examining the levels of stress among academics and general staff in the research literature.

Table 2. 1 Summary of stress research among British and Australian academics

Author	Participants	Method	Results
Kinman (1998)	782 academics	Self-report questionnaire. Quantitative and qualitative methods	Academics experienced more stress like time managem[ent] issues, students-related issues, job insecurity, expecting more stress in future year, less job satisfaction, increasi[ng] working hours and decreasing levels of psychological well-being
Kinman & Jones (2003)	704 academics	Self-report questionnaire. Quantitative methods	Numbers of different sources of stress identified in this research for example working hours, lack of time, too much paper work, number of students, and lack of opportunity for scholarly work, low levels of psycholog[ical] health
Winefield et al. (2003)	34,855 general and academic staff	Self-report questionnaire. Quantitative methods	Despite stressors at work academics were satisfied with their jobs
Tytherleigh et al. (2005)	3808 academic and non-academic from 14 UK universities	Self-report questionnaire. Quantitative methods	Many academics and non-academics staff reported stres[s] increased because of job insecurity, high levels of stress relating to work relationships

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Individual characteristics such as age, gender, levels of education, and personality characters may influence individuals' coping abilities. They may interact with job stressors and either make worse or alleviate their effects (Sharpley, Reynolds, Acosta, & Dua, 1996). Gender differences, as a main category of individual differences in terms of the level of perceived stress, will be discussed in the following paragraphs.

Abousierie (1996) found that there were no remarkable differences between men and women in terms of the levels of stress at work. Many studies found that there were no significant differences between gender, the levels of stress, and psychological well-being between male and female academics (Gmelch & Burns, 1994; Kinman, 1998). Dua (1994) also found no differences between how women and men perceive stress at work, but men reported more workload stress than women, and women reported more stress related to work principles than men. However, Currie (1996) found that stress in males was higher than in females. Currie believed that the result was likely to be related to females' position as they were mainly at lower grades in his study; thus, females' responsibilities were not as great compared with males. Archibong, Bassey, and Effiom (2010) examined occupational stress sources among 279 academics. The results showed that male and female academics differed in their perception of stress. They found that the level of stress was higher in female academics.

Some other studies reported that there were significant differences between male and female academics in the perception of the levels of stress at work. Dey (1994) found that female academics were under pressure more than men because of a lack of personal time, excessive teaching loads, and household duties. Thorsen (1996) found that women reported more job stress than that experienced by male colleagues. Several studies of academics' stress have found that women reported higher stress than men in reaction to work-related stress (Blix et al., 1994; Gmelch & Burns, 1994; & Sharpley et al., 1996).

Kinman and Jones (2006) found gender differences between academic staff in the workplace. The result was a reversal of their previous research in 1994 that examined gender differences in levels of stress and well-being. They found that male academics were more fulfilled than females in their jobs even when they were exposed to stressful events. Furthermore, male academics expressed that the levels of support received from their colleagues and managers were more satisfactory than those expressed by females. Recently Liu and Zhu (2009) found the level of stress in academics to be lower in females compared with males.

There are several individual differences between men and women at work; as an example, women become more irritated in adversity (Blix et al., 1994). Several empirical studies found that female academics are more vulnerable than male academics when they are exposed to occupational stress. Female academics also showed higher levels of negative mental health outcomes (e.g., McInnis, 1996; Thorsen, 1996). Hogan et al. (2002) found that female academics reported higher levels of non-work stressors such as family and social problems, financial and environmental factors than male academics. Roxburgh (1996) argued that men's workloads were higher than women's workloads. Hence, men were more likely to be under pressure than women (Tytherleigh et al., 2007). It appears that as yet there is no consensus about gender differences in occupational stress in academia.

In summary, stress defined as an interaction between the individual and the environment based on the transactional model of stress and coping provides the theoretical framework for the current research programme for the four reasons given previously (Lazarus & Folkman, 1984; cited in Carver, Scheier, & Weintraub, 1989). Reviewing previous research it is apparent that the university environment has changed across the globe in many ways over the last three decades and the levels of stress among academics have dramatically increased (e.g., Blix et al., 1994; Kinman, 1998; & Winefield, 2001). Many of the studies reviewed are relatively old and the present research will provide a more current view of this changing environment.

Measuring stress

There are a large number of measures of stress in the literature. The Holmes and Rahe stress scale (1967) is a list of 43 life events that was designed to identify stressors (Cohen et al., 1983). Depression Anxiety stress scale (Lovibond & Lovibond, 1993) is a 42-item self-report instrument that was designed to measure the three related negative emotional states of depression, anxiety, and stress/tension. This scale would be onerous for participants to complete alongside the other measures as it is so long. Other stress scales are job stress specific and include questions that would not be relevant to academics for example the Occupational Stress Indicator (Cooper, Sloan, & Willimas, 1998; cited in Edwards, Webster, Van Laar, & Easton, 2008). This scale has been criticised as it was developed on the basis of very small samples (N=152) and a large number of items so it cannot be regarded as a reliable scale psychometrically. Furthermore, it consists of 167 items which is too long for ease of completion (Edwards et al., 2008). However, as the aim is to obtain a general measure

of stress that had good psychometric properties and could be applied specifically to the work environment the Perceived Stress Scale (PSS; Cohen, Kamarck, & Mermelstein, 1983) was selected as it meets these criteria (see Chapter 4 for further discussion). The PSS was designed with 14 items that ask about feelings and thoughts during the last month and can be used on a general community clinical or non-clinical sample. The purpose was to find out how people appraised the situation with regard to their feelings and thoughts, as stressful in their life (Cohen et al., 1983). The shorter 10-item version of the PSS was later developed to assess the levels of perceived stress. It has the same psychometric quality as the 14-item version does. The PSS-10 has been identified as a good predictor of physical and psychological symptoms, and utilization of health services. The PSS-10 can be used in a short time, is easy to score (see Chapter 4), and is regarded as an economical scale (Cohen & Williamson, 1988). Using a measure to appraise stress level that is based on personal perceptions of an event as stressful or otherwise is also in keeping with the subjective nature of appraisal in the transactional model of stress underpinning this research.

However, the perceived stress scale has been criticised for not including appraisal of specific life events and subjective appraisal (Lavoie & Douglas, 2012), but the transactional model of stress would argue that life events are only stressful if the individual subjectively appraises them as such. Hence the PSS seemed to be a very suitable measure for this study. Cohen et al. (1983) suggested that the use of the PSS-10 is preferable to the PSS-14 because it has a good internal reliability, tighter factor structure, and equivalent value in predicting outcomes (Cohen et al., 1983). As previously noted, the current study will be used the PSS-10 to measure the levels of stress at work among academics.

2.3 Coping strategy

There are different types of descriptions and effective approaches to define coping with stress in the research literature. It is supposed that coping strategy can change the outcome of a stressful transaction by affecting the cognitive and behavioural responses to stress (Folkman & Lazarus, 1985). As previously discussed in the transactional model of stress and coping, the cognitive model of stress and coping (Lazarus & Smith, 1988) is based on the individual's feeling, thinking, and his/her reaction to stressful situations. It emphasises how cognitive assessment of coping strategies can influence an individual's evaluations of his/her ability to adjust to stressful events and adversity.

Folkman and Lazarus (1985) argued that coping strategies deal with the evaluation of events. They identified two major types of coping; emotion-focused coping and problem-focused coping. Emotion-focused coping involves the individuals' efforts to adjust their emotional reactions to an inflexible situation. Therefore, it is used to handle feelings of distress rather than addressing the actual problem. Problem-focused coping is used to tackle the problem directly to decrease the threat or reduce harm in situations (Carver et al., 1989). Previous research found empirical evidence that individuals use both functions of coping. A sample of middle-aged individuals reported that they often used both functions of coping in stressful situations (Folkman & Lazarus, 1988).

However, some research has claimed that problem-focused coping is more functional than emotion-focused coping in terms of reducing the psychological problems (Savicki, 2003). Although, emotion-focused coping is generally known as a negative strategy, some studies found that such a strategy can decrease distress and its consequences (Riolli & Savicki, 2010). Savicki (2003) suggested that the same coping strategy can have different outcomes in different situations. Carver et al. (1989) aimed to move beyond this dichotomy: Some emotion-focused responses consist of denial, others include the positive interpretation of the events, and still others involve seeking out social support. As the responses are very different from each other, they may have different implications for a person's success in coping.

Moreover, Carver et al. (1989) developed a categorisation of functional and dysfunctional coping strategies on the basis of the previous research and theory. These categories added to both strategies previously defined as problem-and emotion-focused coping. They suggested that acceptance coping as an adaptive response to stressful events could help individuals to protect themselves against unchangeable negative situations (Riolli & Savicki, 2010). In addition, denial coping added to the stress literature as another coping strategy that is described as being the opposite aspect of acceptance, although denial coping is associated with higher levels of stress and also is less adaptive (Carver et al., 1993).

Coping strategies help individuals to adapt themselves to different circumstances, even those who believe that their ability to cope with stressful events is limited. It is clear that individuals' abilities to use specific coping strategies are different (Carver et al., 1989). These researchers found that the reasons why some individuals experienced more stress compared with others (for example become depressed or anxious) could be associated with poor adjustment learning skills (Carver et al., 1989). Research found that feelings of anger,

depression, and anxiety, and denial, and withdrawal behaviours are signs of stress when people are faced with adversity. All those negative responses influenced their cognitions when appraising stressful situations. They then think the stressful situations are getting out of control and their ability to cope with stressful events is low as a consequence (Rutter, Herzberg, & Paice, 2002).

In the current research programme it is hypothesised that coping strategies will have a significant role in coping with stress at work. Folkman and Moskowitz (2000) have focused on the positive aspects of coping with stress. Folkman (1997) proposed that coping theory has concentrated on coping processes to manage and decrease the negative consequences of stressful situations (Folkman & Moskowitz, 2000).

Folkman (1997) also claimed that, there is a growing body of literature focused on individual differences which explains that positive psychology traits such as hope (Snyder et al., 1991), optimism (Scheier & Carver, 1985), and sense of coherence (Antonovsky, 1987) are related to coping positively with stress. For example, optimism as an individual personality characteristic (Carver et al., 1993), and high levels of health and well-being have been shown to maintain the coping process very well (Becker, 1992). Uskul and Greenglass (2005) found that self-efficacy may influence coping ability. The relationship between psychological traits and coping with stress can also influence health and well-being (Ryff, 1998). This research programme aims to explore positive coping by adopting the perspective from positive psychology which will be discussed later (Seligman & Csikszentmihalyi, 2000).

Measuring coping

There is some debate about how to assess coping (Carver et al., 1989). There are several different measures of coping proposed in the research literature such as the Ways of Coping scale (Lazarus & Folkman, 1985), the Coping Strategies Inventory (Tobin, Holroyd, Reynolds, & Wigal, 1989), and the COPE inventory (Carver, Scheier, & Weintraub, 1989).

These scales are not free of criticism. The COPE inventory is well-known as one of the most common scales used to measure coping. This scale has been applied in a several health studies to predict distress or physiological effects related to stress (Carver, 1997). The original Cope inventory was a 60-items instrument with four items per scale but Carver et al. (1993) found that participants who completed this questionnaire became impatient with the

length of the assessment. Therefore these researchers developed a Brief COPE that comprises 14 scales with two subscales within each scale (Carver, 1997; see Chapter 4).

2.4 Work coping variables

2.4.1 Work locus of control

Locus of control is defined as a generalised expectancy that rewards or outcomes are controlled by our response to events or by other resources in life (Spector, 1982). Locus of control as a personality variable refers to the style of attributing success or failure to internal or external sources by individuals in their personal life or work environment (Spector, 1982). One of the first measures of this concept was designed by Rotter (1966): Internal-external general locus of control scale. This measure conceptualised an individual's internal or external locus of control perception along a bipolar continuum (Spector, 1985). Although, Rotter (1966) initially suggested that locus of control is a stable personality trait, more recently developed literature proposed that it is better to regard locus of control as more situationally/contextually specific.

A growing body of research has shown that there is a positive relationship between locus of control and job satisfaction (Wang, Bowling, & Eschleman, 2010). Some research, suggests that employees with an internal locus of control do not usually continue with jobs they find dissatisfying (Judge & Bono, 2001). Spector (1982) found that internals reported more job satisfaction than externals, met their line managers regularly, and experienced less stress at work (Spector, 1988). Lam and Schaubroeck (2000) found that internal employees can cope positively with stress at work.

Locus of control has been identified as an important personality variable affecting behaviours at work through a number of work related variables, including job satisfaction, job performance, and turnover (Spector, 1988). There are different theoretical and psychometric issues concerning how to measure the construct. In one trial to develop a specific measure for work, Spector (1988) developed the Work Locus of Control Scale (WLCS). The 16-item scale measures generalised control beliefs within the work setting, with eight items assessing internal and eight items external control, with the assumption that work locus of control is one-dimensional. The current research will use the WLCS as a work coping variable as the scale is psychometrically sound (Spector, 1988; see Chapter 4).

In a cross-sectional study of 328 UK university students the results revealed that work locus of control was positively associated with general health, assessed with the GHQ-12, indicating that internal students are in better health (Johnson, Batey, & Holdsworth, 2009).

2.4.2 Sense of coherence

Sense of Coherence (SoC) refers to an individual's resources that help shape his/her reactions to stressors, his/her efficiency in dealing with stress, and the final outcome (Antonovsky, 1993). Antonovsky hypothesised that individuals' perceptions of life are based on three dimensions, namely; comprehensibility, manageability, and meaningfulness of the things they do. Comprehensibility means having a sense that stimuli in the environment are predictable and organised. Manageability relates to the sense that accessible sources are sufficient to cope with stressors or environmental demands. Meaningfulness means the sense that demands have a significant impact on human life and are also valuable reserves to access (Antonovsky, 1993). Although the sense of coherence model is suggested to include these three dimensions, it is usually considered as a unitary construct as regarded in this research programme (Eriksson & Lindstrom, 2005).

Sense of coherence expresses an individual's life attitude and his/her potential to react to adversity (Antonovsky, 1993). The concept of sense of coherence is not based on specific coping strategies, but rather it is an approximation of the individuals' abilities to cope with difficult conditions. When individuals facing stress show different reactions this has been shown to be related to their level of sense of coherence. Psychologists have found that high SoC individuals cope better when they encounter stressful life events (Pallant & Lae, 2002). An empirical longitudinal study found that sense of coherence is relatively steady across the life span especially for individuals with high initial sense of coherence scores (Kivimäki, Feldt, Vahtera, & Nurmi, 2000). Antonovsky (1987) found that individuals with a high sense of coherence are healthier and also expressed less stress and greater well-being compared with low sense of coherence individuals. It is suggested that the sense of coherence scores in higher education staff are associated with occupational position and years of education, lower scores being observed in individuals with less education and lower status jobs (Poppius, Tenkanen, Kalimo, & Heinsalmi, 1999). Few studies have assessed the association between sense of coherence and coping. The current research will examine the relationship between sense of coherence as a work coping variable with stress among UK academic staff, as this has not been systematically examined among academics.

The only previous study involving SoC in the UK was undertaken by Kinman (2008) who examined the relationship between job-specific stressors and psychological and physical health symptoms in academic employees working in UK universities. This research examined the role of sense of coherence in coping with job stressors and preserving physical and psychological health in 465 academic employees (60% male). The results showed that employees with higher levels of sense of coherence are healthier (physically and psychologically) than employees with low levels of sense of coherence. High SoC employees also experienced low levels of stress at work. Kinman (2008) suggested the need for protection programmes for academics to increase their personal resources for managing stress.

Sense of coherence is applied in two ways: (a) as a main effect, where it is supposed that individuals with a stronger sense of coherence are healthier than those with a weaker sense of coherence; and (b) as a moderator effect, where it is supposed that sense of coherence protects individuals from the negative effects of stressors on health and well-being (Eriksson & Lindstrom, 2005). The relationship between sense of coherence and job environment is well supported by previous research. For example, if employees perceive their job environment as being comprehensible, manageable, and meaningful, they are more resistant to the negative effects of work-related stress. Some studies tend to support this main hypothesis that employees with a stronger SoC experienced fewer physical and mental illnesses, emotional, behavioural, and cognitive warning signs than those with a weaker SoC (Kalimo & Vuori, 1990; Runeson & Norback, 2005; cited in Kinman, 2008).

A cross-sectional study among 2053 Danish employees revealed that employees with a high sense of coherence experienced less stress and tended to adjust and cope better with job stressors (Albertsen, Nielson, & Borg, 2001). Feldt (1997) found that high sense of coherence employees reported better experiences of protecting themselves from the negative impacts of job stressors such as time pressures and organisational environment than those with low sense of coherence scores. It should be noted that 94% of participants in Feldt's study were men, so it may be difficult to generalise the results of this finding to other occupational groups with female employees (Kinman, 2008).

2.5 Eustress

Eustress or good stress is a term that was first used and defined by Selye (1964, 1987; cited in Elo et al., 2008). Selye (1976) suggested that stress could be assessed as bad (distress) or good (eustress). He divided stress into these two major categories"distress and eustress".

Distress happened when the stress experienced by the person (physical or psychological stress) results in their body going beyond its capacity to use its energy to maintain homeostasis (Elo et al., 2008). Stress may be appraised as pleasant or unpleasant feelings (Selye, 1984); this evaluation depends primarily on how individuals appraise and then react to the potential stressor. Eustress has been regarded as an adaptive reaction to a situation that is evaluated as a positive or negative consequence to individuals' well-being (Elo et al., 2008).

The concept eustress is very important especially when focusing on occupational stress, while it can provide a positive motivation to decrease the negative effects of stress at work (Sparks, Faragher, & Cooper, 2001). The results of many studies suggest that there is a negative relationship between stress and employees' health and well-being and an organisation's productivity. Occupational stress in the United Kingdom costs employers more than £1.12 billion in the form of absenteeism related to illness and high staff turnover (Court & Kinman, 2010). Moreover, as previously mentioned work-related stress caused up to 12.8 million working days annually to be lost in the UK. Working hours in developed countries, such as United States, New Zealand, and the United Kingdom have been increasing and as a result individuals spend less time with family, and have less opportunity for entertainment, and socialisation (Sparks et al., 2001). These factors are all important for combating stress and maintaining a work-life balance.

Selye (1987) suggested that developing positive emotions such as hope, gratitude, and goodwill could help individuals to show positive reaction in stressful events to increase eustress and decrease distress. Conversely, showing negative emotions such as hopelessness, hate, anger, and the sense of revenge are distressful experiences (Elo et al., 2008). Currently researchers from different scientific backgrounds such as health, social sciences, medical sciences, and humanities are interested in studying individuals' health and health attitudes (Ajzen, 2001; Aronson & Aronson, 2008). More recently research has started to examine the relationships between positive traits such as self-efficacy and resiliency with health and well-being (Greven, Chamorro-Premuzic, Arteche, & Furnham, 2008). In this study, one focus is on examining the relationships between some of these positive traits, stress, and coping.

2.6 Positive psychology approach

The literature describes numerous ways to reduce the effects of job-related stress. For example, employees can develop different positive coping strategies (Latack & Havlovic, 1992). Three strategies were suggested by Cohen and Williamson (1985) to cope with stress:

(a) People can undertake some activities to promote their health and well-being through increasing social interactions to provide more support. (b) From the employers' perspective promotion of well-being is also associated with providing practical assistance; for instance, allowing staff to work part time. (c) Encouraging individuals to seek help from others (for example, their partners) to clean the home, make food, or do the other household tasks. These approaches focused on individuals who have difficulties in coping with job stress (Latack & Havlovic, 1992). It is quite an uncritical approach in some ways. There is an implied assumption that employees should be able to cope with work stress and if they cannot cope then they have a problem. It needs to be emphasised that, while it is beyond the scope of this thesis, it is important to acknowledge that employers have a responsibility to try to minimise stress in the work place. If an employee becomes stressed in a very stressful working environment, they should not be seen as failing or less competent. Unfortunately much of the stress literature tends to focus on those having difficulty coping with stress, and they are seen to have a problem. As a result of this negative bias relatively little is known about the characteristics of individuals who cope well with stress. This research programme will adopt a different approach adopted from positive psychology. It will assess character strengths from positive psychology to examine whether character strengths may play a role in alleviating stress.

Over the past decades, previous researchers have developed and expanded different kinds of theories and hypotheses which have provided the base for positive psychology; for example, hope (Meninger, 1959), self-actualisation (Maslow, 1970), hardiness (Kobasa, 1979), learned optimism (Seligman, 1991), and gratitude (Deiener, 2000) (Seligman et al., 2005). The term positive psychology was proposed by Seligman in 1999 at the American Psychological Association Conference. The aim of positive psychology is to empirically study positive emotion, positive character, and positive institutions (Seligman & Csikszentmihalyi, 2000). The aim is to develop effective methodologies to provide a sound empirical basis for a science of mental health and well-being. While the terminology is new, positive psychology builds on the earlier ideas of humanistic psychologists like Maslow (1954, 1962) and Rogers (1951). Maslow and Rogers were both interested in the positive potential of human beings and valued this above pathology. They focused on what human beings could achieve. Maslow (1954) assumed that "human morals/values could be approached scientifically". Indeed, Maslow's (1954) hierarchy of needs is a value-based model, suggesting a specific

definition, prescription, and route to psychological health (Seligman & Csikszentmihalyi, 2000).

However, this early work is not linked to a strong empirical base while the more recent developments in positive psychology put a heavy emphasis on empirically testing the concepts it proposes. This reliance on empirical research to people and access their daily lives differentiates positive psychology from the humanistic psychology of the 1960s to1970s and from the positive thinking movement (Peterson & Seligman, 2004). While humanistic and positive psychology both focuses on similar concerns, they have some differences in terms of methodology and epistemology. Humanistic psychologists are interested mainly in qualitative methods while positive psychologists prefer quantitative methods (Friedman, 2008).

Positive psychology does intend to find and promote the variables that persuade individuals, communities, and societies to improve themselves and promote increased well-being (Seligman & Csikszentmihalyi, 2000). The positive psychology approach uses three main levels for the evaluation of life: the subjective level, individual level, and group level. The subjective level describes values of subjective experience such as well-being, happiness, and satisfaction with life in the past; hope and optimism in the future. The second level deals with positive individual traits; for example, love, courage, forgiveness, and spirituality. Finally, the group level proposes the civic virtues and institutions that move people toward better citizenship, like responsibility, nurturance, humanity, and work ethic (Seligman & Csikszentmihalyi, 2000).

Positive psychology is branded as a scientific approach for assessing character strengths, and it is considered as a starting point for realising and identifying the psychological good life (Seligman & Csikszentmihalyi, 2000). It aims to facilitate a satisfying life style through identifying individuals' character strengths and encouraging individuals to develop them further (Peterson &Park, 2006). Positive psychology emphasises human strengths instead of the negative aspects of human experiences as psychology has tended to do in the past. Seligman and Csikszentmihalyi (2000) argue that psychology since World War II has focused on curing and mending impairment; so far little is known about how normal individuals flourish in adversity. The concentration on pathology ignored fulfilled individuals and the flourishing community. Seligman et al. (2000) claim that this happened because of two economic changes (a) in 1946 the foundation of Veteran Administration (now Veterans Affair) encouraged psychologists to assess and cure suffering; and (b) the National Institute

of Mental Health (NIMH) in 1974 persuaded academics to do research on pathology to achieve grants. This focus on pathology has been productive. For example, clinical psychology made great progress in the diagnoses and curing of mental problems and personality disorders (American Psychiatric Association, 1994) and health psychology discovered how the negative outcomes of environmental stressors affected the physiological system. Research in social psychology has contributed to revolutionary studies on the existence of implicit prejudice and negative outcomes related to low self-esteem. Cognitive psychology has clarified many errors and biases in judgement (Dickerson & Kemeny, 2004).

In the five years after Seligman and Csikszentmihalyi (2000) edited a special issue of American Psychologists and criticised psychology for not generating sufficient "knowledge of what makes life worth living," psychology has learnt to shift from negative agendas like depression, racism, and violence to positive ones. Therefore, positive psychology developed from the cognitive imbalance in earlier psychological research (Gable & Haidt, 2005).

Many textbooks are now published in positive psychology in contrast with the traditional psychology approach during the 1950 to 1980s. Several conferences gathered researchers from many countries, and courses of positive psychology have been established at high schools and universities. In addition, numerous grants have been rewarded to researchers around the world. Many topics that were ignored in the past are now being studied. For example optimism, love, and intrinsic motivation are receiving more attention and some researches are examined interventions to increase well-being (Gable & Haidt, 2005). Positive psychology interventions will be discussed later in this chapter. While a positive psychology approach has been adopted in this research, positive psychology is not without its critics. Some of these criticisms will now be presented.

Criticisms of positive psychology

Seligman and Csikszentmihalyi (2000) have been criticised for not acknowledging humanistic psychology as providing the roots or being the pioneer of positive psychology (Held, 2004). The positive psychology movement has also been criticised because of its dominance and for promoting separation from mainstream psychology and ignoring relevant knowledge from the other areas of psychology (Held, 2004). This follows from the positive psychologists so-called "Declaration of Independence" from the rest of psychology (Snyder, 2002). It would seem very unscientific to ignore relevant research in other areas of psychology, especially given the stated aims of positive psychology to be empirically based.

It may be that some of this is the result of over embracing the new approach and a balance needs to be established. Indeed this study has included traits that predate positive psychology where there is empirical evidences to suggest their relevance for the topic.

Gable and Haidt (2005) claim that it is untrue that all psychology has had a bias towards pathology. They suggest that the greatest part of the research in psychology is neutral, emphasising neither distress nor well-being. Positive psychology emerged from the reaction to an imbalance in clinical psychology specifically, namely the focus on abnormality and mental illness.

Positive psychology has received a great deal of criticism for its philosophical basis and the ethical foundation of its activity (Held, 2004). Davis-Martin (2007) claims that Seligman's positive psychology shows a lack of stability in the way it expresses the virtue hypothesis. Positive psychology claims to value neutrality, but does not always seem to be neutral. The classification of strengths is based on assumptions that all these strengths are personally valuable. Davis-Martin (2007) also claimed that positive psychologists cannot account for themselves as being purely objective and analytical as positive psychology also deals with subjective material such as valuing different perspectives (Robbins, 2008).

In support of Davis-Martin's ideas most health psychologists assume that a value neutral position is not a realistic goal for a researcher or therapist (Robbins, 2008). Health psychologists want what is best for an individual's long-term health. Activities such as drinking alcohol or eating too much consistently may bring hedonic well-being to individuals but will be detrimental to their long-term well-being. Therefore, health psychologists adopt the view that these over indulgences are bad for individuals. These are value judgments preventing health psychologists from taking a neutral stance (Robbins, 2008).

Another criticism is that positive psychology is "nothing more than the scientific study of ordinary human strengths and virtues" (Held, 2004). Positive psychology has also been criticised in that the three pillars that proposed by Seligman et al. (2002) as a guide for positive psychology are ideas from the humanists (Froh, 2004). Indeed, positive psychology owes a debt to William James' scripts about "healthy mindedness" in 1902, while it has a long history in humanistic psychologists like Maslow (1954) who first proposed the term positive psychology in the last chapter of his book *Motivation and personality*. Maslow also suggested that it would be useful to study healthy individuals rather than ill individuals (Gable & Haidt, 2005).

Indeed, humanistic psychologists developed through the philosophy of phenomenology and existentialism. They believed that psychology fundamentally should focus on positive phenomena such as love, courage, and happiness (Froh, 2004). Certainly, this area has similarities with human strengths and virtues described by Seligman and other positive psychologists. However, as previously mentioned, positive psychology is differentiated from humanistic psychology due to methodology and epistemology. Humanists are interested in using qualitative and phenomenological methods to measure human excellence, while positive psychologists focusing on empirical research via quantitative methods to examine human strengths (Froh, 2004).

Seligman admits that positive psychology is not a new idea; it has roots in many previous writers, and he has stated that the positive psychology make no claim of originality. He emphasised that positive psychology will aim to achieve scientific understanding and effective interventions to build success and happiness in individuals, families, and communities. The studies of positive human traits help psychologists to learn how to build the qualities of life that help individuals and communities to flourish, not just suffer and survive (Seligman & Csikzentmihalyi, 2000). Seligman and Csikzentmihalyi (2000) also believe that positive psychology's message or doctrine is to remind psychologists that the field of psychology is not just the study of pathology, weakness, and damage; it also is the study of strength and virtue, work, education, insight, love, and growth. Positive psychology aims to adapt what is best in the scientific method to the unique problems that human behaviour presents to those who wish to understand it in all its complexity.

Positive psychology argues that the aim of counselling should be more than moving individuals from the absence of a problem. And the final goal of interventions proposed by positive psychology is to help individuals with or without problems to lead a fulfilling life. Positive psychologists also believe that prevention is better than remediation or treatment (Park & Peterson, 2008). Positive psychology places emphasis on how people can flourish even when they encounter hardship (Seligman & Csikszentmihalyi, 2000). Positive psychology researchers have examined constructs such as hope, optimism, gratitude, and other positive strengths (McCullough, 2000). These constructs have been shown to impact positively on both psychological and physical health and are well-chronicled (Scheier & Carver, 1985). Character strengths will now be reviewed.

2.7 Character strengths and rationale for selecting

Character strengths are the psychological mechanisms that define virtues. In other words, character strengths refer to the positive attributes within personality that are morally or ethically valued (Park & Peterson, 2009). Maudsley (1998) emphasised the importance of developing character strengths through practical implementation, not merely thinking or talking about them. The processes of developing character strengths requires understanding the relationship between cognition, emotion, and behaviour and also persuading individuals to practice and use them in their daily lives (Park & Peterson, 2009).

The Peterson and Seligman (2004) model of positive psychology includes the concepts of virtues and character strengths. Virtues are the central characteristics valued by moral philosophers and religious thinkers. Virtues also are equivalent to super traits in personality theories while character strengths are equivalent to traits. For example, the virtue of transcendence can be achieved through gratitude, hope, humour, and spirituality (Peterson & Seligman, 2004). The current research programme aims to study character strengths and their role in health and well-being, as Peterson and Seligman (2004) have suggested that future researchers should focus on this second level of conceptualisation, 'character strengths'. Peterson and Seligman (2004) suggested that character strengths are recognised and valued universally.

According to Park, Peterson, and Seligman (2004) character strengths are positive traits that are apparent in individuals' feelings, thoughts, and behaviours. They are observable in individuals' personality, and measurable as individual differences, and they apply cross-culturally (Park et al., 2004). A growing field of empirical research on positive concepts has led to the development of a theoretical framework and classification system of virtues, the Values in Action-Inventory of Strengths (VIA-IS; Peterson & Seligman, 2004). The VIA-IS includes 24 universal character strengths developed under six broad virtues.

In developing the VIA (*Values in Action) Classification of Strengths* Seligman, Park, and Peterson (2004) took as their model the concept of the Diagnostic and Statistical Manual (DSM) of the American Psychiatric Association (1987). It provides an excellent universally accepted model of psychopathology and they aimed to produce a similar definitive model of strengths that would be applicable universally. In order to assess their model they have developed the VIA-IS, which starts by focusing on individual specifics and in particular on

character strengths required to build the good life (Seligman et al., 2004). The latest form of VIA-IS has been used in the U.S.A and other English speaking countries.

The VIA-IS uses a 5-point Likert scale to measure the levels of the 24 strengths in the VIA-IS classification. There are 10 items per strength, and three items per scale that are reversed scored. Paper copies are also available and a web-based version provides immediate feedback about the signature strengths (top five scores) directly to respondents upon completion of the online inventory. In either case, the VIA-IS takes about 30 minutes to complete. About 85% of the respondents have been from the United States; almost all others are from English-speaking nations (United Kingdom, Canada, and Australia). Additionally, they had respondents from Asia, Africa, Central and South America, the Middle East, and continental Europe in all 175 different nations. About two-thirds of the respondents were women. The typical respondents were 35 years of age, married, and employed, and had completed some post-high school education (Seligman et al., 2004). There are some limitations in using the VIA-IS. Data collection needs access to the Internet suggesting that participants need to be more educated and have high levels of incomes to afford computers. It also requires being an English speaker. The more important limitation refers to the factor structure of VIA-IS. Different researchers have found different numbers of factors. For example, Peterson and Seligman found five factors rather than the six factors that are included in their hierarchical virtues model (Seligman et al., 2005). Brada and Kashdan (2010) in a Croatian study found four factors (Bradar & Kashdan, 2010). For these reasons and because not all the character strengths were relevant to well-being, the VIA was not adopted for this study. However, as it has been prominent in the development of positive psychology it is reviewed here.

These 24 character strengths can be represented by six virtues that all occur cross culturally. They are: wisdom, courage, humanity, justice, temperance, and transcendence. The six virtues and the character strengths that comprise each of them are shown in Table 2.2.

Table 2. 2 Positive psychology Values in Action (VIA) Classification of Strengths and Virtues (Seligman & Csikszentmihaly, 2000)

Virtue and strength	Definition
1.Wisdom and Knowledge	Cognitive strengths that consist of attaining and using knowledge
Creativity	*Thinking of novel and productive ways to achieve goals*
Curiosity	*Being interested in experiences for discovering new things*
Open-mindedness	*Capability to examine things objectively from all aspects*
Love of learning	*Mastering new skills, topics, and bodies of knowledge*
Perspective	*Ability to keep things in balance and advise others wisely*
2.Courage	Emotional strengths that involve the exercise of will to accomplish goals in the face of stress
Honesty	*Speaking the truth and presenting oneself in a genuine way*
Bravery	*Not shrinking from threat, difficulty, or pain*
Persistence	*Finishing what one starts*
Zest	*Approaching life with excitement and energy*
3. Humanity	Interpersonal strengths that involve "tending and befriending others"
Kindness	*Doing favours and good deeds for others*
Love	*Valuing close relations with others*
Social intelligence	*Being aware of and sensitive to the motives and feelings of others*
4.Justice	Civic strengths that underlie healthy community life
Fairness	*Treating all individuals the same according to notions of fairness and justice*
Leadership	*Organising group activities and providing direction for others*
Teamwork	*Working well as member of a group or team*
5.Temperance	Strengths that protect against excess
Forgiveness	*Forgiving those who have done wrong*
Modesty	*Letting one's accomplishments speak for themselves*
Prudence	*Being careful about one's choices; not saying or doing things that might later be regretted*
Self-regulation	*Regulation what one feels and does*
6.Transcendence	Strengths that forge connection to the larger universe and provide meaning to life
Appreciation of beauty and excellence	*Noticing and appreciating beauty, excellence, and /or skilled performance in all domains of life*
Gratitude	*Being aware of and thankful for the good things that happen*
Hope	*Expecting the best and working to achieve it*
Humour	*Liking to laugh and tease; bringing smiles to others*
Religiousness	*Having coherent beliefs about the higher aims and meaning of life*

There are a number of studies related to character strengths and their effects on well-being that showed some positive traits such as hope and gratitude associated with a variety of well-being outcomes (Emmons & McCullough, 2003; Park et al., 2004; Peterson & Park, 2006; Snyder, 2002; see Chapter 4).

While 24 character strengths have been identified, access to the VIA-IS is restricted so alternative measures of strengths had to be located so that the data collection was in the researcher's control. Furthermore, as the current research will be aimed to measure stress, coping strategy, work coping variables (work locus of control and sense of coherence), subjective well-being, and mental health inclusion all character strengths in the VIA-IS would have been too onerous for the participants. Another criterion for selection of strengths was a requirement that there were interventions available and evidence in the research literature of their effectiveness as this seemed an ethical stance. It did not seem ethical to assess strengths where no interventions existed in the literature, especially as an intervention is planned for later in the study (for more detail see Chapter 6). For these reasons psychometrically sound measures of the strengths deemed to be relevant to the topic based on previous empirical research with other populations or areas were located.

Empirical evidence is currently lacking for the effectiveness of some of the VIA-IS character strengths which narrowed down the selection of strengths. Research indicates that specific character strengths (e.g., hope, optimism, and gratitude) can protect individuals from unpleasant events and their consequences and they also are associated with health and well-being (Colby & Damon, 1992; Weissberg & Greenberg, 1997; cited in Park & Peterson, 2006). The results of a study by Park et al. (2004) among 5.299 adults participants using the VIA-IS showed that the character strengths of hope, zest, gratitude, love, and curiosity, significantly predicted well-being. While it was again an internet study with some sampling issues as previously mentioned it is the largest study to evaluate the full range of character strengths. They found hope and zest were significant predictors of satisfaction with life. In addition, hope and zest were shown to increase well-being and enjoyment.

It is argued that, whilst all character strengths contribute to satisfaction with life; hope and gratitude are more strongly related to well-being and flourishing (Park & Peterson, 2006). Park et al. (2004) claimed that their study of character strengths and satisfaction with life was a first empirical step in mapping the association between character

strengths and satisfaction with life. They used the 24 VIA-IS to measure character strengths. The results showed that hope was an important independent predictor of satisfaction with life as Snyder (1995) proposed, but it was neither the only predictor nor the most robust compared to character strengths of gratitude, love, and zest. Park et al. (2004) supposed that particular character strengths such as hope and gratitude act as a buffer to protect individuals against the negative effects of stress. Optimism while not part of the VIA classification, has previously been shown to be associated with well-being (Deci & Ryan, 2000) and is therefore included. Similarly, self-efficacy has been shown to be strongly associated to well-being (Bandura, 1990).

Therefore, based on the review of previous research and the other criteria specified above, the character strengths of hope, optimism, gratitude, and self-efficacy were selected for inclusion in the research. These strengths will be examined later in the chapter.

General critique of research on character strengths

This research on character strength is in the tradition of most studies that examine individual differences in that it is a cross-sectional study. The benefits of cross-sectional studies are that you are taking measurements of what is naturally occurring at one point in time giving the measurements ecological validity. The researchers do not lose participants as occurs in longitudinal studies, participants do not become knowledgeable about the tests as they only complete them once and they tend to be cost-effective to run in terms of researchers' time (Field, 2013). However, the correlation analyses used in such designs explore the associations between variables and do not allow assessment of cause and effect. However, the addition of multiple regressions does allow for predictive models to be tested with such data. These criticisms apply to most of the studies on hope, optimism, gratitude, and self-efficacy but to save repetition this generic critique is presented first. Where research findings are based on longitudinal research this is noted and these critiques do not apply to those studies.

2.7.1 Hope

Hope as a psychological concept for study came from the field of medicine to psychology in the 1950s and 1960s, when Menninger (1959) and others introduced this term and defined it as a positive expectancy that goals will be achieved (Snyder, 1995). Menninger supposed that a lack of hope caused mental problems; thus, he encouraged his colleagues to identify the power of hope among patients to develop their

understanding of hope and use it to cure mental patients. Within psychology, this led to hope being defined for a long time as the belief that one's goals could be achieved (Snyder, 1995). Only recently has this definition been changed and the concept widened to develop two somewhat different conceptualisations of hope, one by Snyder (1995) and the other by Seligman (1999). Both ideas will be discussed later.

As previously mentioned, Seligman and colleagues believed that there are 24 strengths of character, hope being one of these, but it is not perceived to be stronger than the other strengths. It is defined as unitary character strength that individuals high in hope are expecting the best from the future and working to achieve it (Peterson & Seligman, 2004). On the other hand, Snyder conceptualises hope as a positive motivational and cognitive state. He has introduced the most complete model of hope in the scientific literature (Snyder, Shorey, Cheavens, Pulvers, Adams, & Wiklund, 2002). Within this model, hope is seen to have very significant effects on behaviour. The focus on hope as a motivational state is quite different from the other definitions of hope which purely focused on emotional characteristics (Tong, Fredrickson, Chang, & Lim, 2010). The current research adopts Snyder's conceptualisation of hope as it includes cognitive and motivational aspects of personality (Snyder, 1995).

Snyder's Hope Theory (1991)

Positive psychologists have tended to find the individual differences that are associated with adaptive behaviours. They suggested that hope is one of the most significant adaptive variables (Snyder, 2002). Snyder et al. (1991) have introduced hope theory as a new cognitive- motivational model. They proposed that individuals expect to achieve their goals by using the character strength of hope in their daily lives. Hope is also associated with a range of psychological advantages (Snyder, Rand, & Sigman, 2005).

Hope is defined as the goals that can be supposed to be anything that individuals are interested in achieving, doing, being, experiencing, or producing (Snyder et al., 2005). The ranges of hope could be different from easy to hard or short-term (e.g., taking one day to achieve) to long-term (e.g., taking months or years to achieve). Hope is now more comprehensively defined as a goal directed thinking process in which people believe they can produce a path to desired goals (pathways) and motivation to use these pathways (agency). Pathways thinking reflect the ability to perceive workable routes to desired goals (planning). Agency thinking represents a capacity to a satisfactory

movement or development along these pathways (motivation) (Snyder et al., 2005). The following paragraphs will explain agency and pathways thinking in more detail.

Agency and pathways thinking

Snyder proposed three new terms in hope theory namely: goal, agency thinking and pathways thinking (Snyder, 1995). Snyder's (2002) definition of hope is an interaction between agency and pathways thinking. The belief that individuals can produce a path to achieve their goals is represented by pathways thinking, and a motivation to use this pathway is conceptualised as agency thinking (Snyder, 2002). Individuals with high levels of hope cognitively can produce various paths to attain their goals and with agency thinking they also are more motivated to select and utilise the pathways (Snyder et al., 2005).

In other words, pathway thinking represents individuals' perceptual capacity to create cognitive routes for favourite goals, and agency thinking represents efficiency to start and carry on movement on these pathways towards goal achievement (Snyder, 2002). Pathways and agency thinking are two distinct categories of the hope model, but they always function together. As defined by Snyder and colleagues, hope as a motivational state is based on a sense of successful agency and pathways thinking (Snyder, 1995).

Hopeful individuals think they can start and continue movement towards their goals (agency thinking) and suppose that they can create realistic routes to attain their goals (pathways thinking). If their first pathway was unsuccessful they can generate an alternative pathway (Snyder et al., 2005). A study by Peterson and Byron (2007) examined the relationship between hope and job performance using three different samples of employees of different job levels and from different industries. The results showed that high levels of hope are associated with high levels of job performance among sales employees, mortgage brokers, and management executives.

Research found that high hope individuals use positive skills in coping with stress. Indeed, these skills protect individuals against adversity (Snyder, Lopez, Shorey, Rand, & Feldman, 2003). Hopeful individuals use more effective goal-setting strategies by thinking how to find a clear way to solve their problems when they experience stress; as a result, they cope well in stressful situations (Snyder, 1995).

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It is supposed that hope has a significant role in coping well with stress (Snyder, 2002). Research undertaken by Ong, Edwards, and Bergeman (2006) examined how variations in trait and state hope are associated with positive adaptation to stress in later adulthood. They studied 27 participants for 45 days to measure their daily stress and emotions. The results indicated that high hope individuals show less stress and more emotional recovery than low hope individuals. They are less likely to become distracted by self-deprecatory thoughts when faced with adversity. Snyder et al. (2003) found that employees with high level of hope, optimism, resiliency and self-efficacy have higher job performance and also are dynamic employees.

Hope, coping, and well-being

Research suggests that hope is directly related to adjustment behaviour and, well-being and also play an important role in stressful situations (Sydner, 2002). The relationship between hope and coping to protect well-being has been shown in both clinical and non-clinical samples of children, adolescents, and adults (Ong et al., 2006). Ciarrochi, Heaven, and Davies (2007) found that hope was a significant predictor of well-being in 784 high school students. Hope as a motivational factor can help individuals to start and carry on working towards their goals and it is related to happiness, mental health, and well-being (Peterson & Byron, 2007). Similarly, Snyder (1995) proposed that hope is associated with physical and mental health. Eilliott et al. (1991) found a link between hope and psychosocial adaptive behaviours in patients with traumatic spinal cord injuries. The result showed that patients higher in hope displayed better psychosocial coping (Snyder et al., 2003). Recently, positive psychology researchers have been interested in studying how hope can affect psychological well-being.

There are limited research studies of hope in academics. For example, Chang (1998) examined the influence of high hope versus low hope on problem-solving skills and on coping with stressful academic situations among 211 college students from a large north eastern university in U.S.A. The results found that there were no significant differences in the strategies used by high and low hope students in adjusting to stressful situations or any difficulties during their studying at university (Chang, 1998). The researcher recommended that future research needs to examine the concept of coping in different domains and contexts and also with different populations. However, Chang (1998) reported that it was impossible to identify cause and effect due to the cross-sectional

nature of his data. He focused on the relationship between hope and criteria more relevant to college students; therefore, his findings may not be comparable to the other populations.

2.7.2 Optimism

There were two major approaches to defining optimism in the research literature; the Seligman (1982) and Scheier (1985) perspectives. First, Seligman (1982) suggested explanatory style as a cognitive personality variable to define optimism. Explanatory style explains how individuals are different in the way they respond to bad events or stress. It was established on the theory of learned helplessness. Based on the theory, people are thought to use three important dimensions to assess the situation when faced with stressful events: internality versus externality; stability versus instability; and universality versus specificity (Seligman, 1982; cited in Hirsch, Wolford, Lalond, Brunk, & Parker-Morris, 2009). These dimensions describe how individuals attribute cause.

Explanatory style describes the ways of thinking about causes of events that happen in our lives. Seligman (1998) believed that humans develop their explanatory style from childhood and that it lasts for the whole of their lives. Seligman suggested that optimistic explanatory style is a tendency to make external, specific, and temporary attributions to previous negative events (Hirsch et al., 2009). Optimistic explanatory style may be defined as a general and stable positive attitude about the future to predict a positive outcome of situations in life (Seligman & Csikszentmihaly, 2000).

Scheier and Carver (1985) conceptualised that dispositional optimism is a general belief or outcome expectancy that good things will happen rather than bad things. Expectancy is considered as a belief that good things will occur in future (Scheier & Carver, 1992). In other words, optimism is defined as a generalised positive outcome expectancy which determines whether individuals carry on with goal-directed activities or whether they become disappointed and stop. Expectancy is a belief that specific behaviour or effort will lead to desired outcomes or effects (Bandura, 1991).

Optimistic individuals believe that positive outcomes will be attained due to their goals and this provides the motivation to continue even in stressful situation. Scheier and Carver (1992) suggested that optimism is the most powerful character strength that

predicts adaptive behaviours. Optimism is also related to improved psychological well-being and lower levels of perceived stress (Fredrickson, 2001; Scheier & Carver, 1992).

Scheier and Carver (1992) believed that optimism is a dispositional trait which leads to the solution of problems by focusing on coping strategies rather than on avoidance/or withdrawal behaviours in stressful situations. The results of many studies showed that optimism is a strong predictor of adaptive behaviour in stressful situations. Optimism is also related to positive adjustment (e.g., Aspinwall & Taylor, 1992; Scheier & Carver, 1985). Further, Scheier and Carver (1992) claimed that outcome expectancy and pathways thinking are the best predictors of adaptive behaviours. Peterson (2000) found that optimism is associated with hope (agency thinking and pathways thinking).

Optimism and hope

Optimism can be differentiated from hope; for example, optimists generally concentrate on future outcomes while hopeful individuals concentrate more on the achievement of specific goals (Bryant & Cvengros, 2004). These researchers suggested that optimism has a more important role to play in implementing positive coping strategies than does hope. In general, the findings of their study showed that hope was a superior predictor for identifying psychological health and well-being than optimism. Other studies found a positive relationship between hope and optimism (Snyder, 1995). Optimists show more positive thinking, show better coping skills, high psychological adjustment and they are healthier than pessimists (Deci & Ryan, 2000; Park, Peterson, & Seligman, 2004). Indices of psychological health that accompany dispositional optimism showed low levels of depression among optimistic individuals. Individuals can learn optimism by examining or reviewing their thinking style. As previously mentioned, hope and optimism are associated with positive expectations. Indeed, hope is focused on goal achievement but optimism is a more general positive expectation (Aspinwall & Leaf, 2002).

More recently, Wong and Lim (2009) found that hope and optimism are significantly associated with each other. They found among 334 secondary students that hope and optimism significantly predicted depression and satisfaction with life.

Optimism and coping

Optimism is a positive factor in managing and boosting positive health habits and well-being. Optimists usually show adaptive behaviour in coping with stress. They usually

do not show denial and helplessness responses (Scheier & Carver, 1985). Optimists reveal less negative behaviour and they show more adaptive functions that are useful to decrease the negative effect of stressors (Aspinwal & Leaf, 2002).

Lopez and Cunha (2008) found that optimistic individuals show positive coping when they are faced with adversity. They also found that optimism was independent of hope as they examined the moderation role of hope and the effects of optimism and pessimism in proactive coping among 343 participants.

2.7.3 Gratitude

The word gratitude comes from the Latin root gratia, meaning grace, graciousness, or gratefulness. All the results from this Latin root "have to do with kindness, generosity, gifts, the beauty of giving, and receiving or getting something for nothing" (Pruyser, 1976; cited in Emmons & McCullough, 2003).

Gratitude has been accepted as an essential value in philosophical and theological theories of virtue morals in many cultures throughout history (Dumas, Johnson, & Lynch, 2002). It has a core component in philosophical and theological theories related to morals belief (Dumas et al., 2002). Gratitude is a greatly appreciated human disposition in Jewish, Christian, Muslim, Buddhist, and Hindu thoughts (Emmons & McCullough, 2003).

Gratitude refers to a sense of thankfulness and great happiness in response to getting a gift, whether the gift is an actual profit from a specific person or an advantage of peaceful joy aroused by inherent beauty (Emmons & McCullough, 2004). In spite of the long history of thought with respect to gratitude, the impact of it on health, well-being, and work has not been studied empirically over a long period (Emmons & McCullough, 2003; McCullough, Emmons & Tsang, 2002). Gratitude has entered in personality psychology as an individual difference variable in the last few years (Wood, Joseph, & Linley, 2007). Gratitude is defined as a character strength; an attitudinal trait or behaviour that is related to positive emotion. It involves appreciation and thankfulness and operates as a moral value or trait (Emmons & Crumpler, 2000; Wood et al., 2007). Psychological research showed that gratitude is associated with higher levels of subjective well-being (McCullough et al., 2002; Seligman et al., 2005).

Gratitude is considered as an emotion, an attitude, a moral virtue, a habit, a personality trait, or a coping response that has cognitive and emotional components (Emmons &

McCullough, 2003). A sense of abundance; feelings of appreciation towards others and their well-being; sense of appreciation of life; and finally a high understanding of the importance of experiencing and expressing gratitude are identified as the four key factors of thankful individuals (Watkins, Woodward, Stone, & Kolts, 2003). Gratitude defined as "being thankful for people, situations, and circumstances in life for what received, experienced, and learned" (Toussaint & Friedman, 2009, page 3).

In a national survey (Gallup, 1998) found that gratitude plays an essential role in daily lives among American teens and adults (Watkins et al., 2003). Most respondents (90%) reported that they are expressing gratitude all the time, and it makes them very happy (Watkins et al., 2003). Recently, many researchers have focused on the emotional aspect of gratitude rather than the cognitive aspects of it. An empirical research study examined the relationship between gratitude and well-being in daily life in undergraduate students. The results showed that a conscious focus on blessing had emotional and interpersonal benefits among students (Emmons & McCullough, 2003). The results of a study revealed that there is a positive relationship between gratitude and subjective well-being in a sample of 154 students (Froh, Yurkewicz, & Kashdan, 2009). Wood et al. (2008) examined the role of gratitude in the development of social support, stress, and depression in two longitudinal studies. Participants were 87 first year undergraduate students between 18 and 30 years old. Their ethnicity was white (81.6%) and Indian (9.2%). Both studies showed that gratitude leads to higher levels of perceived social support, and lower levels of stress and depression.

McCullough et al. (2002) distinguished four facets of a grateful disposition: intensity, frequency, span, and density. They developed the six-item self-report Gratitude Questionnaire (GQ-6) to assess the levels of these four facets. Dispositional gratitude has also been proposed as one of the five character strengths related to the transcendence virtue, the other four character strengths being appreciation of beauty, hope, humour, and spirituality (Peterson & Seligman, 2004). In their online sampling, Park et al. (2004) found the strengths of hope, zest, gratitude, love, and curiosity were strongly related to satisfaction with life and well-being among 5299 adults aged 35-40 years.

In a longitudinal study results showed that employees with high levels of hope and gratitude are more responsible and committed to their jobs (Anderson, Giacalone, & Jurkiewicz, 2007). Findings of a study by McCullough (2002) have suggested that there

is a link between gratitude, hope, and good performance at work. McCullough (2003) found that grateful individuals display more positive mental states such as enthusiasm, determination, and helpfulness; furthermore, they are charitable, kind, and caring to others. Grateful individuals grow in fulfilment by increasing their positive emotions and social activities (Shimai, Tanaka-Matsumi, Otsui, & Fredrickson, 2006). Wood et al. (2008) suggested that increasing gratitude and happiness are two factors that reduce depression and stress and this is confirmed by others (see Duckworth, Steen, & Seligman, 2005; Emmons et al., 2003; Wood et al., 2007).

To summarise, gratitude has been conceptualised at both the emotional and character trait levels (e.g. Emmons & McCullough., 2003; Watkins et al., 2003). As an emotion, it can be experienced as a feeling of thankfulness and appreciation for benefits received, and as a trait can be realised as a higher predisposition to experience gratitude (Wood et al., 2007).

Gratitude, well-being, and coping

As previously mentioned some researchers found a positive relationship between gratitude and well-being in comparison to other character strengths (Park, Peterson, & Seligman, 2004). McCullough et al. (2002) suggested that individuals who focus on the good events in their daily lives for a number of weeks, show significantly improved happiness, reduced depression, and even improved physical health (Emmons & McCullough, 2003; Lyubomirsky, Sheldon, & Schkade, 2005; Seligman et al., 2005). There is more empirical research that shows a strong relationship between gratitude and well-being, although mainly in student samples (Park et al., 2004).

McCullough et al. (2002) found that gratitude was positively associated with satisfaction with life and has a negative relationship with depression. Furthermore, they found that individuals who usually express gratitude in their daily lives benefit from increased well-being. Fredrickson (2001) proposed that dispositional gratitude is related to coping strategies and suggested that gratitude is a positive emotion. Positive emotions are associated with adaptive strategies which encourage individuals to make good using of good times when they are not under threat or adversity. Positive emotions also encourage individuals to use cognitive and behavioural responses when they encounter stress in the future (Fredrickson, 2001).

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The effect of a grateful outlook on psychological and physical well-being was examined in three studies (Emmons & McCullough, 2003). In studies 1 and 2 participants were undergraduate students who enrolled in a health psychology class at university. In study 3 participants were neuromuscular patients recruited through a mailing list compiled by the University of California. Results suggested that a conscious focus on blessings may have increased emotional well-being.

Grateful individuals focus more on positive aspects of life (Adler & Fagley, 2005; Watkins et al., 2003). It is therefore appropriate to include gratitude in this research programme.

2.7.4 Self-efficacy

Self-efficacy is defined as individuals' beliefs about their abilities to achieve high levels of performance in their daily lives. Self-efficacy is a sense of capability and competency to proceed effectively to arrange or expect an outcome (Bandura, 1977; cited in Williams, 2010). Bandura (1978) established self-efficacy theory in the context of an explanatory model of human behaviour. Indeed, self-efficacy could be a strong predictor of behaviour in social life. Research has shown that when individuals feel successful in an activity, they are more interested in spending time and energy on it as they believe that their efforts can lead to achievement (Williams, 2010).

Bandura (1986) introduced the term efficacy in his social cognitive theory. He used it to analyse individuals' perceived ability to do specific behaviours in different situations and examined how they cope with stressful life events (Barry & Zimmerman, 2000). Social cognitive theory suggested that self-efficacy consists of four main elements: cognitive, motivational, affective, and selection processes. Self-efficacy beliefs through these elements determine how individuals feel, think, are motivated, and behave in their lives (Bandura, 1990). According to this theory, individuals who feel they have the capacity to achieve their goals persist in their efforts even when faced with adversity (Bandura & Locke, 2003).

The relationship between individuals' perceived self-efficacy and the work they do was examined. The results showed that self-efficacy is a significant predictor of well-being and mental health (Scholz, Gutiérrez-Doña, Sud, & Schwarzer, 2002). It is argued that high levels of self-efficacy can increase health and well-being in many ways. Individuals with high self- efficacy view difficult tasks as challenges not as problems or

threats to be dealt with (Bandura, 1990). Bandura proposed that when people perceive that they are not talented or able to do specified activities, they possibly feel that they are lacking or even worthless. They become disappointed and/or anxious. He also suggested that perceived self-efficacy can affect health and well-being (Bandura, 1991). Hence, the current research will examine the relationship between self-efficacy stress, and subjective well-being to explore the role of self-efficacy in reducing stress and also increasing well-being among academics.

Self-efficacy indicates an optimistic self-belief that eases goal-setting, persistence in the face of barriers, and recovery from setbacks. It can be regarded as a positive resistance resource factor. Schwarzer and Jerusalem (1979) designed the general self-efficacy scale consisting of 10-items where each item refers to successful coping and implies an internal stable attribution of success (Schwarzer & Jerusalem, 1995; cited in Scholz et al., 2002).

Research was conducted by Shen (2008) to explore the relationships between self-efficacy, social support, and stress with coping strategies in 530 Chinese primary and secondary school teachers. The results showed that there is a significant association between coping strategies, self-efficacy, and social support. Teachers with high levels of self-efficacy and social supports coped positively with stress at work. Lazarus (1990) argued that self-efficacy has a significant role in mediating the stress response. Research showed that self-efficacy is a powerful factor that may affect physical health (Bandura & Locke, 2003). For example, the belief "I am confident that I can succeed in this exam" may result in physiological changes that reduce the stress responses (Ogden, 2004). Self-efficacy can be used as a predictor, mediator, or moderator of health and coping so it gives another rationale for using it in the current research (Bandura, 1977).

There is a lack of research literature that examines the relationship between self-efficacy, stress, and well-being among academics; thus, most of the reports in this topic area are related to non-academics or clinical populations. For example, Hartely, Vance, Elliot, Cuckler, and Berry (2008) examined the relationship between hope and self-efficacy for rehabilitation of depression and functional ability among individuals who received partial or total hip or knee replacements. They found that hope was significantly predictive of pre-surgery depression, but it was not predictive of depression or functional ability after surgery. These researchers also found that higher levels of self-efficacy were predictor of lower post-surgery depression scores (Hartely et al., 2008).

Bandura (1994) believed that people with a strong sense of self-efficacy recover emotionally more easily after disappointments or setbacks. This could come from their belief that their failure is not caused by enduring personal deficits but rather is related to the lack of some specific knowledge, all of which can be remedied. The individuals low in self-efficacy are more likely to attribute failure to their personal weaknesses which they feel are more permanent and difficult to rectify (Bandura, 1994).

2.9 Positive psychology interventions

Positive psychology aims to increase well-being and claims that this is achievable through positive psychology interventions (Lyubomirsky et al., 2005; Seligman et al., 2005; Sheldon & Lyubomirsky, 2007). The main goals of interventions in positive psychology are to help individuals from clinical populations or non-clinical individuals to reach a fulfilling life. Positive psychologists also believe that prevention is better than remediation or treatment (Park & Peterson, 2006).

Three factors have been identified that may increase levels of well-being (Lyubomirsky, Dickerhoof, & Boehmn, 2011). They include (a) individuals' happiness with respect to their genetic inheritance, estimating that 50% of the variance in individual differences in well-being is genetic; (b) individuals' life status, for example their job and income, marital status, and religion, which accounted for approximately 10% of individual differences in well-being; and (c) positive cognitive, behavioural, and goal-based activities that accounted for nearly 40% of individual differences in well-being. Lyubomirsky et al. (2005) discussed that intentional behaviour and cognitive activity are both important for achieving long lasting well-being (Mazzucchelli, Kane, & Rees, 2010). Positive psychology interventions tend to focus on non-clinical samples that desire to become more satisfied and happy in their lives (Rashid, 2009). Likewise, the current research will focus on non-clinical samples of individuals to examine the acceptability of a positive psychology intervention. The results of a meta-analysis of 51 positive psychology interventions among 4,266 clinical samples showed that positive psychology interventions significantly increased well-being and decreased depression (Sin & Lyubomirsky, 2009). Similarly, Seligman et al. (2005) carried out research at the University of Pennsylvania to find out the role of positive psychology interventions in treating depression. The interventions consisted of different practices such as using your signature strengths, the Three Good Things exercise, gratitude visits, practising optimistic thinking, and counting blessings. These interventions can be practised in a

group or individually. However, this randomised controlled study found that some exercises are more effective in reducing depression; for example, the three good things exercise and signature strength of character applications (Seligman et al., 2005).

Some research suggested that it is difficult to permanently become a happier person (Lyubomirsky et al. 2011; Sheldon & Lyubomirsky, 2007). The genealogical contribution to well-being (Lyken & Tellegen, 1996) and the phenomenon of hedonic adaptation (Fredrickson, 2001) influence this (Lyubomirsky et al., 2011). However, some experimental intervention studies have proposed that increasing well-being is possible even in a short period (Fordyce, 1983), and perhaps for a long lasting period (Seligman et al., 2005).

Fordyce (1977), as a pioneer in this field believed that interventions that consisted of several exercises can increase happiness (Fordyce, 1983). He conducted an intervention study with the purpose of increasing well-being among students. The researcher used 14 different happiness-increasing activities such as spending more time to communicate with people, becoming more active, developing optimistic thinking, and so forth over six weeks. Fordyce (1983) randomly assigned two groups of students to a control or experimental group. The experimental group received an instruction to do activities aimed at increasing happiness. The control group only received happiness-increasing strategies in a summary form or no information. The results revealed that experimental group reported improved well-being lasting for more than two months and suggested that a durable change in happiness is possible (see also Seligman et al., 2005; & Lyubomirsky et al., 2011). Similarly, Lyubomirsky et al. (2005) found in a 6-week-long intervention study that cognitive and behavioural thoughts such as acts of kindness and a counting blessings intervention can increase well-being. They compared participants in a control group and in an experimental group. They asked them to count their blessings once per week or three times per week. The results showed that only those who counted their blessing once per week were happier than the other group, suggesting that doing it more frequently became uninteresting.

Burton and King (2004) conducted an intervention study to examine the effects of a writing intervention on mood and physical health. They employed a random assignment and placebo-controlled design. In this study, the experimental group wrote about a positive experience and the control group wrote about a neutral experience such as their bedroom, their shoes, or their schedule. The results showed that writing positive

experiences increased mood among the experimental group, and they also had less appointments at the medical centre over the next three months.

There is very little empirical research that examined the role of positive psychology interventions to increase well-being. However, the results of meta-analysis have confirmed that positive psychology interventions can moderately increase well-being (Schueller, 2010). As noted earlier, the commonest positive psychology interventions suggested are the Three Good Things, gratitude letters, counting blessings, practising optimistic thinking, performing kind acts, and using one's signature strengths (Layous, Chancellor, & Lyubomirsky, 2011; see Chapter 6). Emmons and McCullough (2003) suggested that some positive psychology interventions such as counting blessings and gratitude exercises are associated with higher levels of well-being.

Seligman et al. (2005) conducted five of what he called happiness interventions with a placebo control in a random assignment experiment. They included, a placebo control exercise: early memories (the exercise was to write about early memories every night for seven days); gratitude visits (the task was writing a letter of gratitude to someone that was kind to you but you never appreciated); the Three Good Things in life (the exercise was to write down at night three things that went well in that day and the reason for each for one week); you at your best (participants were asked to write a story to reflect their strengths every day for one week; using signature strengths in a new way (taking part in an online inventory character strengths through a website); and identifying signature strengths (the exercise was to identify their five highest strengths and use them during the coming week), (Seligman et al., 2005). Seligman et al. (2005) found that the three good things exercise and using signature strengths of character can make people happier and less depressed for up to six months. The current research will adopt the three good things intervention to assess whether it can increase well-being among academics and also examine how individuals feel about completing a positive psychology intervention like this in a focus group discussion (see Chapter 6).

This exercise will ask participants to write about three good things that went well every day for one week and also to reflect why each was good. Seligman et al. (2005) suggest that this exercise helps people to remember the positive events rather than the negative one at the end of day, and that makes them happy. Likewise, some findings showed that the Three Good Things exercise helps individuals to finish their day by shifting from the negative aspect of an event to a positive memory (Seligman, Rashid, & Parks, 2006).

The current research programme therefore aims to conduct an intervention study to examine how academics feel about undertaking the exercise. The acceptability of this exercise will be assessed by running a focus group discussion (see Chapter 6).

2.8 Subjective well-being

The history of subjective well-being (SWB) goes back over five decades and the literature developed quickly (Diener, Shu, Lucas, & Smith, 1999). Psychologists and other social scientists were interested in knowing empirically how people evaluate their lives and what is their understanding of the factors that influence subjective well-being. Subjective well-being refers to individuals' evaluations of the affective and cognitive aspects of their lives. The construct of subjective well-being includes individuals' emotional responses, domain satisfaction, and global evaluation of satisfaction with life (Diener et al., 1999). When individuals evaluate their well-being, the judgement could be conscious about their lives (cognitive evaluation) or consist of positive and negative emotions (emotional evaluation). Diener (2000) suggested that when people experienced many pleasant emotions and few unpleasant ones they feel abundant subjective well-being. The researcher also mentioned that dealing with interesting activities can make individuals happy. However, stressful life events can influence individuals' subjective well-being negatively.

Diener (2000) suggested a three component model for subjective well-being: (a) satisfaction with life, (b) positive affect, and (c) low levels of negative affect. The first element or component (cognitive) deals with the individuals' judgments about their satisfaction with a range of life domains; for example, work relationships, parenting, and friendships. Positive and negative affect are the other two components of subjective well-being constructs that generally described daily affective experiences. Positive affect (PA) reflects positive feelings like being excited, strong, active, and interested. Meanwhile negative affect (NA) shows the extent to which individuals feel distressed, hostile, irritable, and guilty (Watson, Clarck, & Tellegen, 1988).

Differences in approaches to well-being

There are different approaches to defining and subsequently measuring well-being within psychology. Hedonism defines well-being as consisting of pleasure or happiness, while the eudemonic view emphasises self-actualisation and finding a meaningful purpose in life (Ryan & Deci, 2001). Specifically, the hedonic view of well-being emphasises the importance of welfare in terms of the pleasurable quality of one's experience while avoiding pain (Kashdan, Biswas-Diener, & King, 2008). The eudemonic approach "defines well-being in terms of the degree to which a person is fully functioning." In other words, the eudemonic perspective does not associate well-being just with happiness and a good easy life but rather with having a purpose in life that gives meaning to life (Ryan & Deci, 2001).

Happiness and well-being

Happiness is a key factor in individuals' lives that they aim to achieve during their lifetime (Diener & Diener, 1996; cited in Oishi, Diener, & Lucas, 2007). It is important to consider the definition of happiness as it has been shown to be related to many pleasurable and very important life events such as marriage, career, and health (Lyubomirsky, King, & Diener, 2005). For example, Deci and Ryan (2008) described well-being as a construct that is concerned with optimal psychological experience and functioning in the research literature. They attributed this to the work of Diener et al. (1985) who focused on subjective well-being. They believed that well-being is best considered as being subjective, as the idea is that individuals can only truly evaluate themselves in terms of their psychological wellness (Deci & Ryan, 2008). SWB derived from the hedonic approach described as individuals' appraisal of their lives with respect to both affective and cognitive aspects (Diener et al., 1985; Snyder & Lopez, 2007). It also referred to happiness or emotional well-being (Snyder & Lopez, 2007) and has become the main measure in well-being research (Kashdan et al., 2008; Ryan & Deci, 2001).

As previously mentioned, some psychologists proposed two different conceptual approaches: hedonic and eudemonic to describe and measure well-being (Kashdan et al., 2008). Fredrickson (1998) proposed in the broaden-and-build theory that positive emotions such as joy, interest, satisfaction or happiness, pride, and love are associated with growth and well-being ranging from developing physical and intellectual resources to social and psychological ones (Fredrickson, 2001).

However currently there is no consensus on defining and measuring emotional well-being so the hedonia and subjective well-being was adopted here. Lyubomirsky et al. (2005) found that positive affect is associated with improved performance at work, high salaries, and developing well-being. Based on the benefit of increasing happiness, Seligman et al. (2005) found that positive psychology interventions can increase individuals' happiness and sustain it over time. Positive psychology interventions will be discussed later. Schiffrin and Nelson (2010) found a negative relationship between happiness and stress among college students.

A different model of well-being based on happiness was proposed by Seligman and Csikszentmihalyi in 2000. Within this model, happiness is regarded or termed well-being and consists of three components pleasure, engagement, and meaning (Seligman & Csikszentmihalyi, 2000; Seligman et al., 2005). However as discussed previously, happiness has been shown to equate with subjective well-being, conceptualised as a combination of high levels of positive affect, low levels of negative affect, and high levels of satisfaction with life (Diener, Shu, Lucas, & Smih, 1999). Deci and Ryan (2008) suggested that the term "subjective well-being" is interchangeable with happiness thus increasing one's well-being has been viewed as increasing one's feelings of happiness. Happiness reflects pleasant and unpleasant affects in the individual's immediate experience (Keyes et al., 2002), while SWB gives a more global perspective. Pavot and Diener (1993) equate SWB with overall happiness with life. The good life refers to happiness with having a favourable attitude towards one's life.

Therefore, the current research programme has assumed happiness and well-being to be equivalent although there is no consensus among the positive psychologists about how to define global well-being. The term is known as a multidimensional construct in psychological research. It is worth re-emphasising that the current research will measure subjective well-being through Satisfaction With Life Scale (SWLS; Diener et al., 1985), and the Positive and Negative Affect Scale (PANAS;Watson, Clark, & Tellegen, 1988). The PANAS and SWL scales will be discussed later (also see Chapter 4)

Another term that is sometimes used, albeit less commonly, is psychological well-being (PWB). Psychological well-being defines well-being in terms of the existential challenges of life (Keyes, Shmotkin, & Ryff, 2002). Specifically, PWB categorizes well-being into six different elements: judgments of self-acceptance, personal growth, purpose in life, positive relations with others, environmental mastery, and autonomy.

This approach is more closely associated with the eudemonic view. Psychological well-being, unlike subjective well-being, entails a component of striving to achieve one's potential or self-ascribed perfectionism, in relation to the existential challenges one faces. Examples of such existential challenges include pursuing meaningful goals, growing and developing as a person, and establishing relationships with others (Keyes et al., 2002). In contrast, subjective well-being defines the good life in terms of four elements; happiness, peace, fulfilment, and satisfaction with life (Diener, 2000). Subjective well-being has also been used as an outcome measure by which to judge successful living (Diener et al., 1999). Although, the two constructs, PWB and SWB highly correlated, they distinctly and uniquely define a complex and elaborate notion of well-being (Keyes et al., 2002).

Selection of which components to measure was influenced by theory and practice in positive psychology to allow comparisons with the previous literature and also by availability and psychometric soundness of the available measures. Subjective well-being fulfilled these criteria best so the current research will examine well-being in the context of satisfaction with life, positive and negative affect as previously noted.

Measuring of subjective well-being

Individuals usually appraise their lives as a whole covering important aspects of life such as work and relationships. Indeed, there are many independent components of subjective well-being: satisfaction with important domains (e.g., work satisfaction), positive affect (pleasant emotions), and low levels of negative affect (few unpleasant emotions), (Pavot & Diener, 1993). Recent measures include multiple scales such as SWLS (Diener et al., 1985), and PANAS (Watson et al., 1988), and to measure subjective well-being (see Chapter 4). The psychometric properties of these scales tend to be strong and they exemplify the most established approach to assessing subjective well-being in the current literature. However, this scale is not free of criticism. For example Schwarz and Strack (1990) believed that there are biases in the SWB scale because satisfaction with life may influence by participants mood at the moment of responding. However, Diener (1999) found that situational factors are not important in assessing the long-term consequences of well-being. This scale is also criticised because it may encourage socially desirable responding. For instance, if respondents believe that happiness is normatively appropriate. In other words they may report that they are happier than they actually are. As mentioned above the SWB scales have a reasonable

degree of validity, are commonly used in well-being research so is used in this study. Diener (2000) suggested that other types of measuring related to well-being should also be used, providing another rationale for using the general health questionnaire (GHQ) in the current research

Assessment of psychological health and well-being

According to Cuijpers, Straten, Smit, Mihalopoulous, and Beekman (2008) the World Health Organisation (2001) defines mental health as " a state of well-being in which the individual realises his or her own abilities allow them to cope with the normal stresses of life, to work productively and fruitfully, and to make a contribution to his or her community." In fact, the main focus of this definition is the emphasis on health and well-being rather than on the absence of illness. Traditionally, psychology focused on mental illness and psychopathology rather than mental health hence, it is clear that this historical approach cannot adequately define health and well-being (Cuijpers et al., 2008). However, positive psychology outlined a schema for fully realising both aspects of mental health "illness and wellness" for individuals, communities, and societies (Mitchell, Vella-Brodick, & Klein, 2010).

As previously emphasised, well-being is a subjective concept and research has identified two components that contribute to well-being: the balance of positive and negative affect and the overall perception of satisfaction with life (Goldberg & Williams, 1988). In this research programme, the PANAS scale (Watson et al., 1988) and the SWL scale (Diener et al., 1985) will be used to measure subjective well-being. In addition, a symptomatic measure of psychological health, the General Health Questionnaire (GHQ-12), (Goldberg & Williams, 1988), will also be included to allow comparisons with the existing research literature (see Chapter 4).

Chapter 3 Methodology

3.1 Introduction

The current research programme aimed to conduct three studies using quantitative methods, qualitative methods, and an intervention study utilising mixed methods. The quantitative study focuses on examining the relationship between character strengths and stress, coping, and health and well-being amongst academics. An online questionnaire using standardised measurement scales was used. The questionnaire started with questions to elicit demographic information followed by measures of character strengths, coping strategies, work coping variables, stress, subjective well-being, and mental health.

The quantitative study was followed by a qualitative study, which focused more on the academic's work environment to examine in more detail how academics think about and evaluate their job, identifying the sources of perceived stress, positive attributes of the job, and how they cope with stress at work. To achieve this goal an online mainly structured interview was conducted. The interviews were interpreted using Thematic Analysis (see Chapter 5). Finally, an intervention study was employed to explore how participants experienced the positive psychology intervention (the Three Good Things), and how they evaluate it by a focus group discussion. This chapter will examine issues which influenced the methodological approach taken to these studies beginning with a philosophical analysis.

3.2 Approaches to research

Crossan (2003) mentioned that there are three reasons to explain why the exploration of philosophy is important for research with regard to research methodology. First of all examination of philosophy could be useful for the researcher to develop the research methodology and it also is helpful for producing methods to get answers to specific research questions. Secondly, it can assist the researcher in evaluating different methodologies and methods. Finally, it may help the researcher to be creative in the final selection of methodology used in a study. Each methodology tends to have its own underlying paradigm or belief system that guides the specific approach. Wainwright (1997) suggested that there are three different components to research paradigms: ontology, which asks about the nature of reality; epistemology, which is concerned with

how you know about something; and methodology, which focuses on how you approach discovering that knowledge. Each will now be further defined and discussed.

3.2.1 Ontology

Under-pinning the methodological approaches taken to research are our personal beliefs about the nature of reality and also what we accept as knowledge relevant to reality (Allison & Pomeroy, 2000). Guba (1990) has suggested the term worldview to label the basic set of beliefs that guide action. Other researchers considered them paradigms (Guba & Lincoln, 2005). However, the term paradigm is open to confusion in that different authors have suggested different meanings for the term. For example, Masterman (1970) noted 21 different meanings of the term paradigm in Kuhn (1962), (Wainwright, 1997). Paradigms will be discussed in more detail later in this section.

Ontology refers to what exists (Wainwright, 1997), or dealing with the nature of reality (Denzin & Lincoln, 2005). Ontology focuses more on how we understand and experience the world and the nature of knowledge rather than on how we measure it. Some researchers believe that reality is socially constructed whereas others consider that there is some degree of objective reality that can be observed and measured (Allison & Pomeroy, 2000). The conceptualisations of the nature of reality are likely to influence whether a researcher adopts a qualitative, quantitative, or mixed method approaches in a research (Creswell, 2009).

3.2.2 Epistemology

Epistemology is concerned with our relationship to knowledge with an emphasis on how we can go about knowing things and the validation of knowledge, or what can be known (Proctor, 1998; cited in Guba & Lincoln, 2005). Epistemology focuses on the nature of knowledge, its assumptions, foundations, ranges, and the validity of knowledge (Wainwright, 1997). Therefore, epistemology involves questioning the source of knowledge, the assumptions upon which it is based, and hence searching what we "do know 'and' "can know" (Allison & Pomeroy, 2000). For example, some researchers see knowledge as having an objective reality, being governed by laws of nature and so on, so that there can exist an agreed relatively objective reality that constitutes knowledge. Other researchers may adopt a more subjective approach, suggesting that individuals create their own reality and hence the only way a researcher can understand that reality is by asking the individual to describe it. In this way the

epistemological approach adopted by the researcher will affect the methodologies they adopt to undertake their research.

3.2.3 Methodology

Methodology refers to the means of obtaining the knowledge. Wainwright (1997) suggests that methodology deals with the philosophical analysis of research strategies while research methods identify as the techniques that can be used to collect and analyse or interpret data in a research study. Therefore, Wainwright (1997) claims that distinguishing between methodology and method is an important issue that should be considered in each piece of research.

Clarke (1998) suggested that there are different philosophical levels that can be used to differentiate research methodologies. The most focused is the distinction between quantitative and qualitative research. These are associated respectively with the philosophical traditions of positivism and post-positivism. However, the choice of approach will also depend on the nature of the research question, the context of the study, and also the researcher's understanding of philosophy, his/her experience, and personal beliefs (Denzin & Lincoln, 2005). These considerations influenced the choice of methodology for the first study in this programme of research. The nature of the research questions seemed to require a quantitative approach (see Chapter 4). I am trained as a psychologist and psychology has a long history of positivism linked to experimental methodologies and more recently post-positivism which allows for research to be contextualised and undertaken outside the laboratory in real world settings. This led to the first study utilising a quantitative methodology undertaken within a post-positivist philosophy. The rationale for the use of each method will now be discussed and some approaches considered but not utilised in the current research will also be discussed briefly.

3.3 Quantitative methods in psychology

Quantitative studies with their emphasis on the measurement and analysis of the relationships between the variables are the cornerstone of psychological research particularly in experimental designs (Creswell, 2009). They are used to create and test hypotheses about theoretical relationships (Punch, 2005). Quantitative research presents as an objective and systematic strategy for identifying and refining knowledge. Within this method, the researcher starts with an established theory; the concepts in the theory

are measured as variables; and then the researcher assembles evidence to test whether the theory is supported (Sousa et al., 2005; cited in Creswell, 2009).

There is a heavy reliance on statistical analysis in a quantitative study, with the aim of uncovering causal relationships. The aim is for research to be conducted within a value-free framework where the researcher is independent from what is being investigated. Quantitative designs are classified in two groups experimental and non-experimental. In psychological research, experimental and correlational/survey designs are the main methodological approaches used (Creswell, 2009).

3.3.1 Experimental research

The aim of an experiment is to identify cause and effect and exclude other possible explanations for the observed relationships between the experimental variables (Cobb, Confrey, diSessa, Lehrer, & Schauble, 2003). The experimental researchers manipulate at least one independent variable (IV) to observe the different outcomes on the dependent variable (DV) while trying to hold extraneous variables constant (Creswell, 2009). Within this method, the aim is for objective observation that is tightly controlled. This may involve matching research participants on a range of relevant characteristics and random assignment of participants to the experimental and control conditions. In the experimental method, researchers manipulate the independent variables in a controlled situation to test hypotheses (Cobb et al., 2003). Experimental research can use a range of designs such as pre-test/post-test control group design, Solomon Four-Group design, and post-test only control group design. However, the data produced is numerical and is always analysed using statistical methods.

While experimental designs are often viewed as the gold standard in psychology because of the power of control in their design (Creswell, 2009), they are not free from criticisms. Experiments are frequently criticised because of their unrealistic nature. Many of the issues that psychologists desire to study are complex therefore using experimental methods is often impossible. When psychological research is conducted in the laboratories it can be difficult to generalise the results from the experiment to real life situations (Punch, 2005). Experiments are also subject to the Hawthorne effect (Clifford, 1997) and the mortality, maturation, and history of the research participants that may influence the research in unexpected ways (Walker, 2005). The Hawthorne effect in occupational health literature refers to nonspecific effects that are caused simply by being a participant in a study (Wickstrom & Bendix, 2000). For example, in

organisational studies, participants have been shown to work harder simply because they are being observed by a researcher. Finally, in terms of ethical issues, in intervention experimental designs for example, participants are sometimes unaware of whether they are receiving the active treatment or a placebo. If the active treatment is shown to be effective then there is the issue of whether the control group should receive it, and there may also be the issues about how adverse effects are treated in such experimental trials (Punch, 2005).

3.3.2 Correlational methodology

Correlational designs deal with the systematic investigation of the relationship between and among variables. One of the main purposes of correlational design is to identify the relationship between variables especially when it is not appropriate to conduct experimental studies. The design is typically cross-sectional and analyses the direction, degree, magnitude, and strength of the relationship between variables (Field, 2013). Within this design, the researcher can find out whether the change in one variable is related to change in another variable (Walker, 2005).

Types of design

While there are a range of research designs that are used in non-experimental research, an important distinction is made between cross-sectional and longitudinal designs, based on the timing of data collection (Field, 2013). Cross-sectional designs are one of the most commonly used designs in psychology. This design is appropriate for studies that aim to investigate the prevalence of a phenomenon, situation, attitude or issue by measuring its occurrence in a cross-section of the population. It provides a picture of the situations as it stands at the time of the study (Kumar, 2005). Cross-sectional designs are relatively quick to undertake and inexpensive compared with longitudinal studies. Since there is no follow up, fewer resources are required to conduct a study. Cross-sectional design is therefore an effective way to identify the relationships between variables (Mann & Stewart, 2000). The current research programme has adopted a cross-sectional study as the aim was to investigate the relationship between variables at one time point. The limitation of cross-sectional designs is that they are not able to measure change over long time periods. To measure changes it is necessary to have at least two data collection points, making it a longitudinal design. Another problem with cross-sectional design is differentiating cause and effect from simple association (Mann

& Stewart, 2000). However, collecting data from academics at one time point was challenging so it was not feasible to undertake a longitudinal design for this research.

To summarise, the current research programme conducted a cross-sectional quantitative study to examine the relationship between character strengths, coping with stress, work coping variables, subjective well-being, and symptomatic mental health in Study 1.

3.4 Qualitative methods in psychology

Qualitative research focuses on studying phenomena in natural settings, with the aim of understanding or interpreting the meanings that individuals give to a phenomenon (Denzin & Lincoln, 2005). Qualitative methods are fairly new in psychology, although they have a deep and complex history in other fields of social sciences and have been contentious in psychology at one time (Howitt, 2010). The ranges of qualitative methods in psychology are quite wide. However, what is common to all qualitative methods is that attention is focused on the interpretation of subjective meaning that participants give to the material being researched, and that it includes a description of the social context of the study (Fossey, Harvey, McDermott, & Davidson, 2002). Qualitative research essentially includes three separate analytic approaches. These are the analysis of language to investigate the processes of communication and patterns of interaction with a particular social group; collection and interpretation of subjective meanings attributed to situations and actions; and finally theory-building through discovering patterns and connections in qualitative data (Fossey et al., 2002). Denzin (2005) suggested that qualitative research deals with a range of empirical material, case study, life story, personal experience interview, and observations that define routine and challenging periods in people's lives.

This research method also focuses on hypothesis and theory generation instead of hypothesis testing and theory verification, which are often the focus of quantitative research (Ponterotto, 2005). Qualitative research allows for in-depth study of participants views or situations. In this way it can provide a deeper level of understanding of a specific phenomenon that is usually found in quantitative research. Qualitative research can also be used to complement the quantitative research methods by providing a deeper analysis of the phenomenon being researched (Ponterotto, 2005).

3.5 Paradigms description

The four principle research paradigms that are discussed in the current chapter are positivism, post-positivism, interpretivism or hermeneutics, and critical realism paradigms. Paradigm as it is used here describes a system of ideas or worldview that is used by the community of researchers to produce knowledge (Morgan, 2007). For each paradigm there is a set of assumptions or rules, research approaches, and language that are shaped by researchers adopting that paradigm. Associated with each paradigm are different approaches to conceptualising the world and knowledge, and different approaches for observing and measuring the phenomenon being studied (Fossey et al., 2002). The philosophy adopted for the current qualitative element of this research was critical realism. Before the rationale for this approach is given other possible paradigms will be discussed.

3.5.1 Positivism paradigm

Quantitative research is grounded in the philosophical approach of positivism (Crossan, 2003). Positivism is a philosophy of science that had its historical beginnings in the Enlightment reaching a peak in the mid nineteen century writings of Comte (Denzin & Lincoln, 2000). Smith (1998) clearly described positivist approaches to research. He writes that "positivist approaches to the social sciences assume that things can be studied as hard facts and the relationship between these facts can be established as scientific laws. For positivists, such laws have the status of truth and social objects can be studied in much the same way as natural objects." While there is a long history of positivism in philosophy going back to the 18th century, modern approaches are based on the position of positivists such as Hemple (1965). The assumption is that there is an objective reality that is independent of human minds (Sale, Lynne, Lohfiled, & Brazil, 2002). In this tradition, research is about the creation of knowledge through deductive logic combined with the collection of empirical data in a repeated circle to verify the obtained knowledge. In other word, positivism is based on the belief that the world consists of recognisable facts that exist or are factual and independent of human cognition and that researchers can objectively study research participants. Basically, such observations are quantitative measurements for example details of independent variables and their relationship with dependent variables (Crossan, 2003). Positivism is one of the most traditional research approaches and is commonly used (Allison & Pomeroy, 2000). However, Positivism is not free from criticism. One of the most

important weaknesses of the positivist idea of knowledge is that it cannot deal with values and norms (Klein, 2004). Positivism is also criticised because it assumes that an objective reality or truth exists independent of those under investigation and the investigation context (Fossey et al., 2002).

3.5.2 Post-positivism paradigm

Post-positivism challenges the traditional positive view of the absolute truth of knowledge (Creswell, 2009) suggesting instead that the context within which a study occurs has an effect, as do the values and interests of the researcher despite his/or her best intentions. Post-positivists recognise the importance of undertaking research outside the laboratory in naturalistic settings in order to understand a phenomenon. Knowledge within post-positivism is built up from the careful observations and measurements of objective reality that exists "out there" in the world (Creswell, 2009). Post-positivism's view of realty is based on probability and shared interpretations of the world which means that researchers can only determine what is relative fact (Allison & Pomeroy, 2000).

3.5.3 Interpretivism paradigm

Interpretivism or hermeneutics asserts that the phenomenon (in this case human beings) studied by psychologists and social scientists is fundamentally different from that studied by natural scientists, and therefore the research methods adopted by natural scientists are not appropriate for subjects like psychology (Ulin, Robinson, & Tolley, 2005). In research terms, this approach acknowledges that facts and values are inseparable and that we can only begin to make sense of an individual's world by developing an understanding of how that individual's values influence his or her interpretation of the world. Interpretivist researchers hold that no single reality exists and all reality is filtered through individual perceptions and cognition. Based on this philosophy, all observations are the acts of unconscious interpretation (Ulin et al., 2005). Researchers in the interpretivism or hermeneutics tradition acknowledge that both the researcher and the person being researched bring their own interpretation of the world or a specific situation to the research process and that these need to be acknowledged in the process. There is no shared reality. Researchers following this paradigm are required to reflect on their own values and suspend their influence as far as possible during the research process to ensure that they are open to the views and

values of the person being researched (Banister, Burman, Parke, Taylor, & Tindall, 2002).

There are many criticisms of interpretivist approaches such as that it produces descriptions of phenomena that are vague and tend to vary between individuals and so do not provide a sound basis for making comparisons between individuals or situations. It encourages a single case study approach or at best uses very small numbers making generalisation impossible. Knowledge and meaning are sited within the individual and can only be accessed by a process of intuition on the part of the researcher. It is suggested that in writing up such research, the focus is more on producing a coherent narrative than on checking that what is being reported is a valid interpretation of what the research participant produced. There are methodological variations in the ways that interpretivism or hermeneutics are applied and the general criticism of the approach applies in varying degrees to each of these (McLeod, 2001).

3.5.4 Critical Realism paradigm

Realists assume that there is an objective reality in the world, which would also include psychological phenomena. However it would seem naïve to accept that all phenomena are objective and knowable. There is sufficient evidence within psychology alone to demonstrate that individuals put their own interpretations on events. Critical realism is a more subtle form of realism, that acknowledges that while human beings each have their own subjective interpretation of the world, there is also a shared objective reality that humans negotiate and can agree on and that researches can access (Wikgren, 2005). Wikgren suggests that, with careful investigation, checking and comparing of experiences, researchers can uncover some objective truths. He is not claiming that our judgments about ourselves and the world are always accurate but that they are open to revision and can be explored further and he suggests that by doing this, some accuracy is possible. Intuitively it seems that for human beings to interact and communicate with each other successfully at least most of the time there has to be some sort of shared interpretation of reality. Some phenomena will be more difficult to access than others but it is an approach that seemed applicable to the qualitative element of this research and the material that was being accessed about how a shared working environment is experienced.

Critical realism accepts that there is both a subjective and objective reality within the psyche of each individual. The claim is that some of that reality can be discovered, via

the research process by collecting views from several individuals and then comparing and contrasting their experiences. It is acknowledged that this gives a limited view of human reality in psychological research (Banister et al., 2002).

The aim of the qualitative study in this research programme was to collect more in-depth data on job stressors that are experienced by academics, identifying the strategies that academics use to cope with stress at work, and exploring the positive and negative aspects of the job as assessed from academics' opinions and experiences. Therefore, critical realism is adopted for the qualitative study as it met the researcher's criteria to explore the reality from the academics' perspectives of their job environment in terms of their feelings, thoughts, and understanding of that environment.

3.6 Interview types

Qualitative interviewing is frequently used to collect data in qualitative research although it is sometimes criticised because it is not a completely standardised approach (Hammersley, 2000). Interviewing refers to conversation with a purpose; the purpose here being to collect information from the interviewee's perspective. There is no consensus among researchers on how to conduct an interview (Berg, 2007). However, three types of interviews are described in qualitative researches structured interview, semi-structured interview, and unstructured interview (Babbie, 2007).

3.6.1 Structured interview

Structured interviews comprise a carefully prepared schedule of interview questions provided by the researcher. This ensures that all interviewees are asked the same questions and it ensures that the responses will be comparable (Babbie, 2007). Researchers using this model construct an interview schedule to ensure that they address all the information that they require on the topic from the interviewee's perspective. They must ensure that the questions are worded clearly so interviewees understand what they are being asked. In summary, structured interviews use a set of predetermined questions to collect data on the interviewees' thought, opinions, and attitudes about the issues being studied (Kumar, 2005).

The strongest aspect of the structured interview is that it provides a reliable source of qualitative data in that all respondents have been asked the same questions. Further, it allows relatively quick and efficient data collection. The downside of structured interviewing is that it restricts the range of material that participants can provide to that

which the questions set including opportunities to provide further information that respondents see as relevant to the topic can help to address this, as was done in this study.

3.6.2 Semi-structured interview

Semi-structured interviews similarly consist of a number of prearranged questions and/or topics prepared in advance so that the researchers knows what ground they wish to cover in the interview (Whiting, 2008). However, the questions will be mainly open-ended to encourage interviewees to explore different aspects of the questions but may include some closed questions. The researcher may follow up on things the interviewees say with further questions to allow areas to be explored in more depth. There is more flexibility in a semi-structured interview, but still a degree of control in that the interviewer will use prompts to bring the interviewee back to the topics they are interested in. Semi-structured interview is sometimes described as a conversational approach but with the interviewer maintaining some degree of control. In terms of control it falls between the structured and unstructured interview (Whiting, 2008).

3.6.3 Unstructured interview

The unstructured interview was developed as a method for obtaining individuals' descriptions of their social realities in anthropology and sociology (Punch, 2005). The term 'unstructured interview' is used interchangeably with the terms, conversational interview, in-depth interview, and ethnographical interview. There are different definitions of unstructured interviews in the research methods literature. For example, Minichiello et al. (1990) defined them by saying that the questions and possible answers are not predetermined. They rely on the social interaction between the interviewer and the interviewee (Patton, 2002). Punch (2005) described unstructured interviews as a way to understand the complex behaviour of individuals without imposing any prior categorisation on the conversation that is reported. In addition, Patton (2002) defined it as a natural extension of participant observation. Patton described unstructured interviews as being totally dependent on the spontaneous generation of questions in the natural flow of an interaction. In contrast to the structured interview, the researcher does not know what all the interview questions will be in advance of the interview or where the data collection will go in terms of topics covered (Berg, 2007).

Two factors determine whether the researcher uses unstructured interviews: firstly the researcher's epistemology and secondly the study's objective. Researchers who conducted unstructured interviews adopted constructive approaches to social reality and correspondingly designed studies within an interpretive research paradigm. They believed that to study individuals' worlds the researchers are required to approach things through the participants' own perspective and in the participants' own terms or words (Denzin, & Lincoln, 2005). Howitt (2010) suggests that for qualitative research it is unusual to collect data by using unstructured interviews, as it can make analysis very difficult (unless a case study approach is being adopted) as participants may choose to discuss very different topics (Patton, 2002). Reflexivity plays a key role in interview methods as the researcher reflecting or contributes his or her own ideas and experiences when identifying the topics and creating the related research questions (Banister et al., 2002). Reflexivity will be discussed further in the section on thematic analysis (3.7).

Ethical issues are also very important when obtaining data through interviews. Participants should consent to take part in the research project. The researcher should explain to participants the purpose of the research and the reason that they have been chosen to take part. The researcher should make it clear to respondents that they can withdraw from the interview at any time if they are not happy to continue participating, or they can choose not to answer any given question (see Appendix 3.1). They must also be given the opportunity to withdraw their data or elements of it after the interview if data is not anonymous. However, this must be time limited as once analysis begins it is difficult to withdraw data. The researcher should also inform participants that they can access the results of the study if they wish in return for their time (Newby, 2010). The current research provided a debriefing section for the interviewees (see Appendix 3. 2).

3.6.4 Focus group interview

Focus group is one type of group interview that is used in qualitative research, especially when the aim is discovering participants' opinions through the verbal conversation (Redmonde & Curtise, 2009). Focus group as a research method in qualitative research refers to collecting data throughout group interaction on a topic determined by the researcher (Kitzinger, 1994). Morgan (1996) suggested that the definition of focus group interviews should consist of three components:

a) focus group as a method of collecting data,
b) interaction in a focus group could be regarded as the source of the data,

c) showing the role of the researcher to create an active group discussion for data collection based on the aim of the research.

Focus groups are sometimes called discussion groups because a number of individuals are asked to attend in a group to discuss a specific topic (Dawson, 2010). Metron et al. (1999) proposed four major criteria for conducting a focus group discussion. They are (a) the discussion or interview should address a maximum range of subjects related to topic; (b) there should be an information sheet that is particular to the topic; (c) the researcher should focus on increasing the interaction that studies interviewees' feelings in depth; and (d) it is important to record the information of the personal context within which interviewees express their ideas and feelings relevant to the topic (Redmonde & Curtise, 2009).

The focus group is identified as a popular method across many fields including social sciences and psychology. Health researchers are known as being pioneers of using this method in health education, health promotion, and health research (Morgan, 1996). Focus groups deal with a small number of people in a friendly or an informal group discussion. The discussion focuses on a series of questions that are prepared by the researcher. The most important role of the researcher in a group discussion is facilitating or moderating the group by proposing the questions, trying to keep the discussion flowing, and encouraging the participants dynamically to contribute to the group discussion. In addition, the focus group provides a naturalistic environment so that participants can express and share their feelings and thoughts with the group (Morgan, 1996).

The focus group as a qualitative method can be used in different ways in research. For example, Kitzinger (1994) suggested that using a focus group is more appropriate when it is employed in a mixed methods study to add to survey research. It can help the researcher to collect information about the participants' opinions and perspectives. Stewart et al. (2007) also pointed out that the focus group as a qualitative method may be used as a follow-up to other qualitative methods, for example individual interviews, or accompany other research method such as quantitative surveys (Redmonde & Curtise, 2009). Similarly, Morgan (1996) suggested that the focus group can be mixed with other methods such as individual interviews or surveys. The current research adopted mixed methods for the final study. Quantitative data was collected on participants at different points as they participated in an intervention, and this was followed up by a focus group discussion to produce a different type of data.

The focus group is a research method is designed to elicit a specific set of issues, such as people's ideas and experiences, in a group. In other words, a focus group centres on a certain group of individuals that are selected by the researcher to discuss their personal ideas and experiences related to a research topic (Kitzinger, 1994). A focus group is therefore a good choice in qualitative research when the aim of the research is to determine people's perceptions or opinions on a particular topic (Wilkinson, 1998). As the aim of the current study was to explore how academics evaluated a positive psychology intervention and how it may help them to cope with stress at work and increase their well-being a focus group discussion was employed.

Size, length, and questions of the focus group

There are some issues related to size, length, and the number of questions in a group discussion. A focus group discussion can take place with a single group of participants in a single session. It also can be carried out with many groups in one session or repeated meetings (Kitzinger, 1994). Some research sources suggest that in terms of the number of participants it would be more preferable to conduct the focus group discussion with six to eight participants for academic research (Remenyi, 2011). Other researchers recommended a different optimum size, for example between four and eight, would be more appropriate for pre-existing groups of people for example work colleagues (Wilkinson, 1998). Furthermore, some authors suggest six to ten (Morgan, 1996), whereas Pugsley (1996) recommended using a minimum of three participants and a maximum of 14 (Redmond & Curtise, 2009). However, the current study aimed to conduct a focus group discussion with university academic staff using a relatively small number of participants to ensure that everyone would have an opportunity to contribute.

There are also some issues related to the length of the focus group interview. The duration of the focus group should be between 45 and 90 minutes, as more than this could possibly make participants tired and less than this is not adequate for a comprehensive discussion (Denzin & Lincoln, 2005). Some qualitative researchers believe that the duration of the focus group interview is dependent on other factors such as complexity of the topic and also the number of questions. For example, if the topic is specific, one hour is likely to be adequate, but if it is varied or far-reaching and includes many questions, two hours would be estimated (Redmond & Curtise, 2009). The current study estimated at least 45 minutes as only a few questions were to be explored (see Chapter 6).

The final concern for conducting a focus group interview is related to the number of questions. It has been suggested that three to four questions would be sufficient for a group discussion in particular when it is not usual to recall a focus group for a second meeting (Morgan, 1996).

Focus group discussion is usually audio-taped so that data can be transcribed. The data normally will be analysed by content analysis or thematic analysis (Wilkinson, 1998). Thematic analysis is discussed below. The current study used thematic analysis to interpret data after transcription.

Advantages and disadvantages of a focus group

Focus group discussions, like the other methods in qualitative research, have some advantages and disadvantages. Flexibility is identified as an advantage of using this method, as it can be mixed with quantitative methods as a part of multi-method project or multi-purpose method. Also a researcher can collect a large amount of data quickly and cheaply (Wilkinson & Smith, 2003). In addition, as a group process it can help the researcher to investigate and simplify the participants' views that would be difficult to explore through an individual interview. Dawson (2010) suggested that focus group discussion can help participants to remember issues they might otherwise have forgotten and also help individuals overcome inhibitors, in particular if they know each other. However, focus group discussion is not free from criticism. Recruiting participants is identified as a disadvantage of this technique as it may not be easy to locate participants. Moreover, moderating a group, which is important in a focus group discussion, requires training and practice (Denzin & Lincoln, 2005). Dawson (2010) identified some disadvantages for this method including the fact that: for some people speaking in front of others may not be easy and makes them nervous. Furthermore, Denzin and Lincoln (2005) mentioned that data transcription and analysis is a time-consuming process that needs interpretive skills. The possibility that the views collected may not represent the views of large parts of the populations is also identified as another disadvantage. Finally, as a focus group discussion is a fairly unstructured interview, analysing data may be difficult for the researcher (Denzin & Lincoln, 2005).

3.7 Thematic analysis

Qualitative approaches are extremely varied, complex, and nuanced (Holloway & Wheeler, 2002). Qualitative methods can be categorised into two camps: the first is

where they are related to a particular theory or epistemology such as interpretative phenomenological analysis (Smith & Osborn, 2004), grounded theory (Glaser, 1992), discourse analysis (Burman & Parker, 1994), and narrative analysis (Riessman, 1994), (Punch 2005). The second camp is associated with methods that are basically independent of theory or epistemology (e.g., thematic analysis) that can be used across a range of theoretical and epistemological approaches (Aronson & Aronson, 2008).

Qualitative researchers have to select their view of the nature of reality before the methodology is selected. For example in the Constructivist approach there is no assumption of a shared objective reality; rather each individual creates their own reality. This is based on the meaning that they give to their previous experience (Banister et al., 2002). Within this approach, the researcher seeks through interpretation to understand the world view of the research participants (see Chapters 5 & 6).

A contrary view is realism, where the assumption is that there is an objective reality known to and experienced by all, which would include a psychological reality. This is obviously a naive assumption; hence Hammersley (2000) has described a more realistic version termed critical realism. Here knowledge of the world is categorised in terms of things which we can be reasonably certain about and things which we cannot possibly know. This gives rise to an objective world reality which is shared and subjective experience which is personal to the individual. The assumption is that some objective truth exists and is knowable (Patomaki, 2000). At the same time there are elements which are less knowable but can be examined through qualitative enquiry.

This research adopts a critical realist approach reflecting the views of the researcher about the nature of the world. Hence the qualitative analysis undertaken in Chapters 5 and 6 assumes that the world of the academic has some shared objective reality for all its members but also has a subjective reality for each member. Critical realism allows for this dual reality to be explored.

In terms of the analytic method that is most appropriate, several considerations come into play. There is no underlying theoretical analytic model to be discovered in this component of the research which rules out interpretative phenomenological analysis, grounded theory, discourse analysis, and narrative analysis (Punch, 2005). This then requires the use of a method independent of theory or epistemology such as thematic analysis (Roulston, deMarrias, & Lewis, 2003). The nature of the data collected also lends itself to a thematic analysis. In this study, the method of data collection is not

designed to produce in depth data about feelings and emotions about participants' world views; rather it adopts a more factual approach which focuses almost entirely on their working life. As it is collected using a fairly structured online interview format, the level of complexity for analysis within the data is not as great as would be required by other methodologies.

In its favour, thematic analysis provides a flexible tool. It is the analysis of what is said rather than how it is said. It involves examining the data in some depth in order to identify relatively broad themes which summarise the content of the data (Braun & Clarke, 2006). It provides a logical way to arrange and understand interview material and is particularly suited to factual questions and the levels of analysis necessary for the qualitative study in chapters 5 and 6. The analyses are organised under thematic headings in ways that attempt to do justice both to the elements of the research questions and to the preoccupations of the interviewees (Banister et al., 2002). While it is widely used, there is no one agreed model to use. All approaches agree that ultimately the decision on identifying themes is the researcher's. The researcher basically reads through transcripts of the interview several times and then identifies themes that reoccur commonly in the transcripts (Braun & Clarke, 2006). Howitt (2010) proposed that the essential procedures identified in thematic analysis are transcription, analytic effort, and theme identification.

Braun and Clarke (2006) claim that their approach to thematic analysis is one of the best available which ensures high standards in thematic analysis. A review of other approaches led the author to adopt this systematic method as the stages are clearly defined which makes the analysis more transparent, and it seemed best suited to the research method adopted. They suggest that the process of thematic analysis may be broken down into six separate stages. The six stages include data familiarisation; initial coding generation; search for themes based on initial coding; review of themes; theme definition and labelling; and report writing (see Table 3.1). Although the six stages are listed in sequential order, overlap of the stages is necessary. As this study used online interviews, transcription was unnecessary.

While undertaking the analysis, the researcher may move backwards or forwards between stages with the purpose of checking one aspect of the analysis against one or more of the other stages in the analysis. Obviously, checking is more frequent between the stages which are close together but this does not stop checking, for instance, what is

written in the report against the original data. The distinction between different stages of the analysis is conceptual for the most part since the different phases may not be totally distinct in practice but may often be concurrent. Looping backwards and forwards are ways of improving the analysis. They are not signs that the analysis is proceeding badly, without this looping backwards and forwards, the analytic effort going into the process is probably insufficient (Braun & Clarke, 2006).

Table 3. 1 Six stages of thematic analysis (Braun & Clarke, 2006)

Stage	Description of the process
1. Familiarising yourself with your data:	Reading, re-reading data and writing down initial thoughts.
2. Generate initial codes:	Coding interesting elements of the data in a systematic way through the entire data set, and collecting quotations related to each code.
3. Searching for themes:	Organizing codes into potential themes, assembling all the quotes relevant to each potential theme.
4. Reviewing themes:	Checking the themes in relation to the coded extracts (Level 1) and entire data set (Level 2), to create a thematic map.
5. Defining and naming themes:	Continuing analysis to refine the details of each theme, and the overall story the analysis tells, creating clear definitions and names for each theme.
6. Producing the report:	The final opportunity for analysis. Selecting a range of vivid, compelling extract examples, final analysis of selected extracts, relating the analysis to the research question and the literature, and finally producing a scholarly report of the analysis.

Themes

A theme describes important points about the data related to the research question. It also shows some level of patterned response or meaning in the data set. A theme can be a word, a sentence or a phrase in a data set. As previously mentioned the researcher's judgment is required to decide what a theme is (Braun & Clarke, 2006). Themes can be acknowledged in one of two main ways in thematic analysis: an inductive or in a deductive way. The inductive way is sometimes labelled a bottom-up approach, meaning the themes are identified from the actual data collected. The deductive approach involves the production of a theoretically driven template or code book which is then used to organise themes for later interpretation (Patton, 2002). Selection of themes in the deductive approach is more theoretically driven as, for example, when a researcher wants to collect data to examine a particular theoretical position. His or her theoretically driven themes would be included in their template or code book and instances of particular themes would be identified in the data. On the other hand, the inductive approach to thematic analysis allows themes to appear from the data, instead of thorough pre-determined categorisation. The criteria for the selection of an inductive or a deductive approach depend on how and why the researcher is coding the data (Marks & Yardley, 2004). In our qualitative study there are no preconceived ideas about the content of the text, so the inductive method of analysis is most appropriate.

Positive and negative aspects of thematic analysis

Thematic analysis is not a complex method and the advantages of using it outweigh the disadvantages. Flexibility is one of the greatest advantages of thematic analysis. It provides a flexible and useful research tool, allowing the researcher to determine themes in a several ways. It can provide a clearly structured, rich, and empirically grounded textual analysis (Braun & Clarke, 2006). Thematic analysis is particularly applicable when the data set is relatively uncomplicated as with the structured online interviews in this study. Such structured interviews do not provide the same complexity of response as face-to-face interviews or focus groups making more complex analytic processes more difficult to apply.

Regardless of the advantages of thematic analysis, an absence of clear and concise guidelines around thematic analysis is sometimes considered a disadvantage for this method in qualitative research (Antaki, Young, & Finlay, 2002). Thematic analysis is criticised due to a lack of consistent and transparent formulation. Many of the

disadvantages are related to poorly conducted analyses or inappropriate research questions rather than the method itself (Antaki et al., 2002). In this study, we have adopted clear guidelines for the analysis to address this criticism.

Thematic analysis is also criticised because of limited interpretative power beyond mere description if it is not used with an existing theoretical framework, but as mentioned above it fits the level of analysis deemed appropriate for this study. Braun and Clarke (2006) suggest that in thematic analysis, the researcher may find it difficult to keep a sense of continuity (consistency) and contradiction (inconsistency) through the individual accounts. However adopting a structured approach to the analysis, as in the current research (qualitative studies) helps to combat this. Despite these criticisms, thematic analysis is a method that works both to reflect reality and understand the views of the participants, and is therefore appropriate for the complexity of data collected here.

Qualitative versus quantitative research

Hammersley (2000) suggested that some qualitative researchers believe that quantitative and qualitative methods are two separate and distinct paradigms for the research. Becker and Bryman (2004) proposed that qualitative research differs from quantitative research in five significant ways. These are:

1. Use of positivism and post-positivism
2. Acceptance of postmodern sensibility
3. Capturing the individual's point of view
4. Examining the constraints of everyday life
5. Securing rich description

Other researchers believe that inflexibility is one of the key differences between qualitative and quantitative methods, the quantitative method being less flexible than the qualitative method. Quantitative researchers will ask all the participants the same questions (normally closed questions) in the same order in a survey or through a questionnaire, meaning the responses are of the same type. However, this inflexibility enables a meaningful comparison of the responses across participants and study sites. Qualitative methods are more flexible which allows for greater interaction between the researcher and the participant groups. As an example, qualitative methods typically ask

'open-ended' questions where participants are free to respond in their own words rather than with pre-designed responses (Guba, 1990).

3.8 Using the Internet in quantitative and qualitative researches

Recently, the field of survey research is changing and improving due to advances in the techniques and technology available (Evans & Mathur, 2005). The use of computer technology is dramatically increasing in psychological research (Berg, 2009). Information and communication technologies (ICA) have opened new opportunities for researchers to investigate how traditional research methods can be adapted for online research (Johns et al., 2004). Technology has developed the way that surveys are administered with the beginning of the first e-mail survey in the1980s and the initial web-based surveys in the 1990s (Schonlau et al., 2001; cited in Evans & Mathur, 2005). Internet and e-mail are both fundamental tools in academics' working lives for teaching and research, although they are not always considered good sources of academic knowledge (Reed, 2004). The positive aspects of using online research methods are to facilitate the process of recruiting participants by reducing costs and time for participants to travel. However, issues around access to participants with disabilities, and language or communication difficulties have been well documented (Mann & Stewart, 2000).

Online surveys have the advantage of offering flexibility, speed, timeliness, convenience, ease of data entry and analysis, making large samples relatively easy and inexpensive to obtain (Evans & Mathur, 2005). Flexibility is one of the most important strengths of the online survey. This type of survey can be applied in several formats such as email with an embedded survey, email with a link to a survey URL, or a visit to a web site (Evans & Mathur, 2005). The current research programme used a staff electronic newsletter with a survey URL link to recruit the participants as this allowed data to be collected anonymously.

Recently, qualitative researchers have been showing more interest in using Internet media such as email interviewing instead of the traditional interaction of face-to face interviewing (Kazmer & Xie, 2008). Mann and Stewart (2000) noted how Internet technology can be applied with qualitative methods in order to obtain rich, descriptive data online, and to understand human experiences (Denzin, 2004). They also provided details of how web-based qualitative and quantitative research is significantly increasing among social science researchers (James & Busher, 2006).

The Internet is also identified as a social phenomenon, a tool, and a field site for qualitative research. Using the Internet as a research tool to conduct an interview can be accomplished in synchronous or asynchronous interview environments (Silverman, 2011). Synchronous environments (real-time) consist of chat rooms, instant messenger protocols, and real-time threaded communications. These provide an experience for the researcher and the respondent that is similar to a face-to face interview. Asynchronous environments (not real-time) consist of the use of the Internet and email, message boards, and private bulletin posting areas. These are generally utilised by the researchers to undertake survey-based research (Silverman, 2011).

Using online interviews enables the researcher to overcome some of the difficulties inherent in face-to face interviews (e.g., costs and transcription); as a result, the researchers can increase their population instead of being constrained to a local population (James & Busher, 2006). Online interviews are more appropriate for participants who need a longer time to think about their responses or who have busy schedules (Silverman, 2011). The other strength of the online interview is that the questions can be sent out privately to an individual contact and no one can add to, delete, or disrupt the exchange online. Online interviews can eliminate problems due to time and distance. It also suggested that fatigue, which can occur in lengthy interviews, can be reduced in this way (James & Busher, 2006). Silverman (2011) also noted that the most positive aspect of online interviews based on web-survey tools is anonymity. These anonymous interaction environments may allow participants to speak more freely without restrains brought about by social norms, ethnicity, and the norms of conversation. However, online interviews are criticised because of the lack of visual cues, lack of the spontaneity of probing and chasing down interesting topics that emerge in the interview process. And finally, the participants are restricted to those with access to computers, the Internet, and of course email accounts (James & Busher, 2006). A growing body of research shows that the use of the web as a primary tool for conducting research has been increasing; in particular, using email to send a link, or email interviewing for the participants as a medium for online research (Eichorn, 2001).

The main aim of using online interviewing in the current research was to investigate academics' understanding of their job environment (see Chapter 5). This study seeks to explore how academics think or feel about positive and negative aspects of their work and how they cope with challenges at work. Using an online interview is a relatively new method in qualitative research.

The current research used an asynchronous environment as this fitted with the demands of an academic's life. Academics are also familiar with emails and the Internet, using them regularly to teach, engage with students, communicate with colleagues and so forth every day (Reed, 2004).

3.9 Mixed Methods

Mixed methods designs are direct descendants of classical experimentalism. Within the design, it presumes a methodological hierarchy in which quantitative methods are located at the top and qualitative methods are assigned to a largely supporting role in pursuit of the technocratic aim of accumulating knowledge of what works. The mixed methods movement takes qualitative methods out of their natural home, which is within the critical and interpretive framework. It divides inquiry into dichotomous categories: the exploration versus the confirmation. Qualitative work is allocated to the first category and quantitative research to the second one (Tashakkori & Teddlie, 2010).

Mixed method is known as the third research paradigm in educational and social sciences research. It involves combining quantitative and qualitative methodologies to investigate the same phenomenon in a research programme. Bryman (1984) believed that the main reasons for mixing these two approaches are to take advantage of their respective strengths and to compensate for the weaknesses of each approach. The researchers who use mixed methods make a rational choice between them deciding which best address their research question (Bryman, 1984). Hammersley (1996) suggested that there were two kinds of researchers, one who collects and analyses only numerical data and the other who collects words. However, there are a large proportion of studies that use both methods. It is quite common that some researchers employ both qualitative and quantitative methods in the same study or research project (Hammersley, 2000). The reason for using mixed methods is generally to increase the validity of the findings as using more than one method ensures that any differences found reflect real variance in the phenomena being studied and not variance due to method (Punch, 2005).

In spite of the important differences between qualitative and quantitative approaches to research, both also share many similarities. For example, these methods can be used productively for description, investigating, or explaining phenomena. They can also be useful for exploratory analysis, confirmatory analysis, and hypothesis testing. Both approaches use empirical observation to address research questions (Punch, 2005). Research using mixed methods has dramatically increased in the social sciences, so that

they may be considered as a legitimate research design (see Creswell, 2009; Tashakkor & Teddlie, 2010).

There is some debate among researchers about which philosophical paradigm is the best foundation for mixed methods research. There are several responses to this question. Some researchers believe that mixed methods research needs to use different philosophies for each component. Another perspective proposes that pragmatism is the best paradigm for mixed methods research (Tashakkori & Teddlie, 2010). Rossman and Wilson (1985) discriminated between methodological purists, situationalists, and pragmatists. The purists believed that quantitative and qualitative methods are underpinned by different epistemology and ontological assumptions about research. The situationalists believe that both methods are important but the type of method used depends on the particular research context or certain circumstances or situations. Pragmatists suggest that the nature of the research question dictates the approach chosen by a researcher (Creswell, 2009). Some research questions are better suited to a quantitative approach and others to a qualitative approach, while including both in a study or research programme allows the researcher to gain complementary perspectives. In this it is not the researcher's philosophical commitment that determines the approach; rather it is the appropriateness of the design and methodology to the question being asked. For many mixed methods researchers, pragmatism has become the response to the question of what is the best paradigm for mixed methods research (Creswell, 2009).

Tashakkori and Tedllie (2010) have highlighted the importance of the research questions as the priority in research. Indeed, they believe that the research questions are more important than the methods, theoretical approaches, or paradigms that underlie the method. It is noteworthy that at least 14 other well-known mixed methods researchers and scholars are in agreement that the pragmatism is the best philosophical foundation for the mixed methods research (Tashakkori & Tedllie, 2010). A pragmatic approach was adopted to using mixed methods in this research programme.

3.10 Ethics issues and research

There are different definitions of the term ethics in the research literature. Fraenkel, Wallen, and Hyun (2009) suggest that the term ethics refers to the question of right and wrong. Thus researchers should consider whether it is right to conduct a particular study or undertake a certain procedure. Also protecting the participants' safety, health and well-being is a fundamental responsibility for any researcher. Therefore, the researcher

must be certain that the research will not produce any sort of danger or distress for the participants. Participants must also be able to provide informed consent before they participate in a study (Fraenkel et al., 2009). Hence, preparing the information sheets describing the study, consent, and debriefing forms is obligatory. Further, after the data have been collected, the researcher should protect the participants' anonymity and the confidentiality of the data collected from them. Researchers need to reassure participants that no one else has access to the participants' information and should remove the name or any sign of the identity of the participants from the material they store. To achieve this, the researchers can use numbers or letters or any anonymous key to identify their participants. Finally, the confidentiality in terms of anonymity and protecting data are other important issues that the researcher should consider in any publications or presentations. As mentioned above, the current research used the Internet to send a link URL via staff electronic magazine to recruit participant with the researcher's contact detail. The ethical issues have been considered for this research programme and approvals to conduct the studies were received from the University Research Ethic Committee (see Appendices 9, 10, 11).

Chapter4-Study 1: Stress, well-being and mental health and their association with character strengths

4.1 Introduction

There is a long history in psychology research which has examined the negative outcomes of stress in the general population. However, there is relatively little early research focused on stress amongst academics, perhaps because stress levels were relatively low (Abouserie, 1996; Gmelch & Burn, 1994). Fisher suggested that this may be changing. Certainly the change in the academic environment outlined previously in Chapter 2, suggests that the academic environment and perceptions of academic jobs have dramatically changed in the last two decades.

Surveys in the UK, as discussed in Chapter 2, indicated that the levels of stress at work are increasing amongst academics. There are several studies that have reported increasing stress levels in academic staff (e.g. Archibong et al., 2010; Kinman, 2006, 2008; Kinman & Jones, 2006; Rutter et al., 2002; Winefield et al., 2001, 2003, 2008; Winefield & Jarret 2001). To summarise these findings, they found that reductions in funding, insufficient pay, heavy workloads, long working hours, the growth in the number of students, poor communications, role ambiguity, and striving for publications were all adding to the stress among academics. In addition, a substantial literature over the past four decades has consistently shown that work stressors cause illness and reduce productivity at work. Hence the importance of understanding stress at work.

However, from the review of the literature, there were no studies focusing on how academics coped positively with stress. Research on stress has traditionally focused on stressed individuals and it is only since the recent resurgence of positive psychology that interest in studying those who are coping well with adversities such as stress is being encouraged. As this research adopts a positive psychology perspective, the focus will be on understanding those who cope well with academic work and the associated stress. Understanding how individuals preserve their well-being in stressful environments, will allow new developments to assist those who find coping with stress more difficult. This study begins by examining stress in academics, coping styles and work coping variables. It follows by assessing some character strengths to explore how they relate to subjective well-being and mental health and whether coping styles and work coping variables predict stress at work.

The transactional model of stress and coping outlined in Chapter 2 provides the framework for evaluating the process of coping with stressful events (Folkman & Lazarus, 1985). Within this model, stress refers to a transaction between an individual and the environment in terms of person-environment fit. It is an adaptive response to an event that may have positive or negative implications for well-being (Elo, Ervasti, Kuosma, & Mattila, 2008). There are two major components in the stress literature "distress and eustress". Selye believed that our appraisal determines whether a situation is distressful (bad) or eustressful (good) (Selye, 1987).The concept of eustress is very important when considering stress at work, as it can provide a positive motivation and protect against the negative effects of distress. Selye (1987) suggested that learning how to react to stressors through positive emotions such as hope, gratitude, and goodwill were likely to increase eustress and decline distress. Conversely, negative emotions like hopelessness, hate, anger, and seeking revenge for perceived wrongs are themselves distressing (Elo et al., 2008). These ideas on eustress were not actively pursued and research has focused mainly on distress, with the positive aspect of stress being given less attention. The implication is that by adopting the positive psychology perspective in this research and examining those who appear to cope well and report lower levels of stress, the concept of eustress is being assessed.

As discussed earlier, the academic environment now surrounds more stressors than previously, and the concept of eustress would suggest that individuals, who are coping with this increase, perceive stress as a challenge rather than as a threat, so that stress is positively motivating for them. As previously mentioned Selye (1987) by suggesting that hope and gratitude were likely to promote eustress predated the advent of positive psychology (Elo et al., 2008). This research will seek to examine his hypotheses by examining the relationship between character strengths (hope, optimism, gratitude, and self-efficacy), stress, coping, well-being, and mental health.

Gender and job stress

As outlined in Chapter 2, some research suggested that there were no significant differences between male and female academics in their levels of stress at work and psychological well-being (Abouserie, 1996; Gmelch & Burns; 1994; Kinman, 1998; Ofoegbu & Nwandiani, 2006). However, Dey (1994) reported that female academics are more stressed than male academics and females in the study attributed this to lack of

personal time, heavy teaching loads, and their additional household responsibilities. In a recent study, Liu and Zhu (2009) found that male academics experienced more stress at work. This controversy in the literature provides a rationale for comparing sex differences in stress levels in the current study.

Coping strategy, sense of coherence, and work locus of control

Other variables have been shown to be associated with the way in which individuals respond to stress at work. These include their style of coping, their assessment of whether the work that they are required to do is comprehensible, manageable, and meaningful (sense of coherence) and their subjective assessment of the degree of control they have at work (work locus of control). These will be discussed in turn as they are included in the study as work related variables that may influence how individuals cope.

Coping is conceptualised as a response to stressful environments or negative events (Folkman, 1997; Folkman & Lazarus, 1988). Coping strategy plays an important role in individuals' physical and psychological well-being in stressful situations (Endler & Parker, 1990; Miller & McCool, 2003). As discussed in Chapter 2, Lazarus (1990) identified two aspects of coping with stress: problem-focused coping and emotion-focused coping. Problem-focused coping is a strategy directed to change a stressful situation, and emotion-focused coping deals with the emotional response to the problem. Carver et al. (1989) noted that problem-focused and emotion-focused coping are important, but supplementary discrimination is required. They therefore developed the COPE inventory to assess a broader variety of coping styles, which includes acceptance coping and denial coping (Litman, 2006). Carver and colleagues proposed that acceptance coping appears to be the opposite of denial coping and they argued that acceptance coping can help individuals to maintain their mental health and well-being in unchangeable situations, while denial coping is less adaptive (Carver et al., 1993).

Sense of Coherence (SoC) is a construct that is hypothesised to underlie successful coping when faced with environmental stressors, thus it facilitates coping with stress (Antonovsky, 1993). As outlined in Chapter 2, few studies have examined the association between sense of coherence and coping with stress. However, Kinman (2008) found that high levels of sense of coherence were associated with better psychological and physical health and low levels of stress at work among academics. Work locus of control describes an important factor that influences behaviour at work by affecting a number of work related variables; including job satisfaction, job

performance, and turnover (Spector, 1982, 1985). Johnson et al. (2009) found that work locus of control was positively associated with general health.

As discussed in Chapter 2, there is a limited amount of research examining the effect of work locus of control and sense of coherence on coping with stress amongst academics. This research will seek to address this by examining how coping styles, work locus of control, and sense of coherence are associated with perceived stress levels at work.

Positive psychology

As outlined in Chapter 2, positive psychology is a scientific approach to examine empirically positive emotion, positive character, and positive institutions (Seligman & Csikzentmihaly, 2000). It assesses happiness and subjective well-being.

Subjective well-being consists of two components: the balance of positive and negative affect (emotional dimension of well-being), and the perception of satisfaction with life (cognitive dimension of well-being) as discussed in Chapter 2. Therefore this research will use the satisfaction with life scale (Watson et al., 1988), and the positive and negative affect scale (Diener, Emmons, Larsen, & Griffin, 1985), to assess the levels of well-being in academics. In addition, a symptomatic measure of mental health, the general health questionnaire (GHQ) will also be included to allow comparisons with the existing research literature (Goldberg & Willams, 1988). The GHQ provides a general evaluation of mental health that measures somatic symptoms, social withdrawal, anxiety and depression and was designed to be used in general population surveys (Jackson, 2007).

Character strengths and their selection

As discussed in Chapter 2, while the VIA-IS (Peterson & Seligman, 2004), describes 24 character strengths, not all of which are relevant to the topic being researched. Inclusion of all the strengths in addition to the other measures required would have been too onerous for the participants. Selection of relevant strengths to include was based on a review of the literature where strengths relevant to the topic were identified. The strengths selected will now be discussed.

Folkman (1997) suggested that knowing more about individual characteristics such as hope (Snyder, 1995), and optimism (Scheier & Carver, 1985) is important in understanding their relationships with subjective well-being in stressful situations. As

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discussed in Chapter 2, hope is an interaction between agency and pathway thinking (Snyder et al., 2003). High hope individuals are more likely to experience feelings of worth, satisfaction with life, and cope better with stress (Chang, 1998). As seen in Chapter 2, little research has focused on hope and well-being amongst academic staff. Snyder et al. (2005) found that employees high in hope show high levels of job performance and that hope was also associated with positive coping and well-being. Abramson et al. (1994) found that hope was positively related to physical and mental health, while a lack of hope had a negative effect on health and well-being (Snyder et al., 2003). Whether this applies to academics will be examined.

Scheier and Carver's (1985) model of dispositional optimism, outlined in Chapter 2, is adopted here. Within this model, optimism is conceptualised as a generalised positive outcome expectancy which determines whether individuals persevere with goal-directed activities or whether they give up. Optimistic individuals believe that positive outcomes will be achieved in relation to their goals, and this provides the motivation to continue even in the face of adversity. The opposite applies to pessimistic individuals (Scheier & Carver, 1985). These researchers argued that expectancies are the best predictors of actions, rather than actions being the basis from where expectancies are obtained. Basically, what is important is the generalised optimistic (or pessimistic) orientation rather than why individuals expect good or bad future outcomes for example, due to working hard or being luck. Optimistic individuals are focused on positive coping strategies rather than avoidance behaviours or withdrawal from stressful situations (Scheier & Carver, 1985). Some studies found that optimism is positively associated with psychological well-being and lower levels of stress (Fredrickson, 2001; Scheier & Carver, 1992). As previously outlined in Chapter 2, few studies have focused on the relationship between optimism and other strengths (e.g., hope, gratitude, and self-efficacy), stress and well-being amongst academics. This is partly due to the research on optimism predating much of the work on other character strengths. The results of many studies (Aspinwall & Taylor, 1992; Carver et al., 1993; Scheier & Carver, 1992) have shown that optimism is a strong positive predictor of subjective well-being.

As discussed in chapter 2, gratitude is defined as a sense of thankfulness and appreciation in response to received benefits (Emmons & McCullough, 2004). Although, gratitude has a long history in moral philosophy and theology, it has not until recently been empirically examined in the social sciences in particular in the psychology literature (Emmons & Crumpler, 2000). However, Froh et al. (2009) found a positive

relationship between gratitude, positive affect, and satisfaction with life in a sample of 154 students. Other research found a significant association between gratitude and well-being in daily life among undergraduate students (e.g., Emmons & McCullough, 2003). However, little research has focused on evaluating gratitude in academic staff. The current research will examine the relationship between gratitude and other strengths (hope, optimism, and self-efficacy) with stress, subjective well-being, and mental health among academics to add to the limited literature.

Self-efficacy refers to individuals' opinions in respect to their abilities to achieve their goals or ambitions (Williams, 2010). As discussed in Chapter 2, Lazarus (1990) claimed that self-efficacy could moderate the stress reactions. Also some research indicated that self-efficacy can predict health and well-being (Scholz et al., 2002). Therefore, these provide a rationale to examine the role of self-efficacy in relation to stress, well-being, and mental health.

In summary, this research will examine the relationship between the character strengths of hope, optimism, gratitude, and self-efficacy, and stress, coping styles, work coping variables, well-being, and mental health in a sample of academic staff.

Measuring stress and coping

Although, a large number of stress measures exist in the literature, these are often designed for specific purposes and include measures which would be inappropriate when measuring stress specifically in an academic domain. Considerations around the length and time taken to complete measures also guided the choice of scale used within this study. The PSS developed by Cohen et al. (1983) was selected to assess the levels of stress among academics in the present study. As outlined in Chapter 2, the perceived stress scale originally consisted of 14 items to measure the degree to which situations in an individual's life are appraised stressful (Cohen et al., 1983). Later, Cohen and Williamson (1988) developed a shorter 10-item version of the original scale to measure the level of perceived stress without any loss of psychometric quality (Gonzalez & Landero, 2007).

The PSS scale has been found to prepare reliably predict for psychological problems, physical symptoms, and utilisation of health services (Cohen & Williamson, 1988). The PSS-10 is a precise measure that can be used in a variety of research setting as it is short, reliable, valid, and easy to complete in different populations (Kopp et al., 2010).

The perceived stress scale has been shown to be more successful in predicting a variety of health care outcomes than other measures such as the Holmes and Rahe stress scale (Cohen et al., 1983), or depression anxiety stress scale (Brown et al., 1997). These other stress measurement scales do not focus on the appraisal of the stressful events while the PSS includes appraisal (Cohen et al., 1983).

There is a tradition of using self-report measures to assess coping in the stress literature (Carver, Scheier, & Weintraub, 1989). Within this, individuals are asked to determine their coping when faced with environmental stressors. Psychological stress and coping have significant elements of subjective assessment, so these researchers argue that a valid measure of stress and coping comes from an individual's self-assessment. The argument is that one person's stressor is another person's positive challenge. However, there has been some debate in the stress literature about which is the most appropriate scale for assessing coping (Edwards & Cooper, 1988). An appropriate scale to measure coping was needed. The most commonly used coping measures suffer from different psychometric weaknesses. For example, the ways of coping questionnaire (Folkman & Lazarus, 1980), although revised by Folkman and Lazarus in 1985, still has weak validity in the subscales and the internal consistency reliabilities are very modest (Endler & Parker, 1990).

To address these issues, as discussed in Chapter 2 Carver et al. (1989) designed a classification of functional and dysfunctional coping styles based on previous research and theory. These classifications accepted both problem-and emotion-focused coping styles and added denial coping. From this they developed the Brief COPE (Coping Orientation to Problems Encountered) scale to measure coping styles (Carver et al., 1989). As the current study adopted Carver's perspective for identifying coping styles, The Brief COPE scale (Carver, 1997) seemed most relevant as it comes from the same theoretical model. Although this scale has not been free of criticism for its factor structure (Litman, 2006), it is the most widely used scale and will allow comparisons with the existing literature (see Chapter 2).

4.2 Rationale for the current study

From an academic perspective, identifying the characteristics of individuals who cope well with the stresses of academic life will address an identified weakness in the stress literature. This study will allow the psychological profiling of academics who cope well with the potentially stressful aspects of academic life. In addition, the UK government

(2009) is now beginning to request that employers promote emotional well-being in the work place rather than continuing with the more traditional stress management approaches. This change of emphasis makes this research with its focus on eustress very timely. The participant group has also been shown to be under-researched in a time of great changes in universities with associated increases in stressors. It will be the first study to use a positive psychology approach with this group in the UK.

Research questions and hypotheses for the research programme

To summarise, this research will assess stress levels in academics. Coping style, sense of coherence, and work locus of control will be investigated in relation to the work academics do. The study will examine how these variables are associated with perceived stress. It will also examine the character strengths of hope, optimism, gratitude, and self-efficacy and explore their association with subjective well-being and mental health in academics. The influence of demographic variables such as gender, whether work is full-time or part-time, and job position will also be examined.

A number of research questions were developed based on the existing empirical literature on coping with stress from a positive psychology perspective (Peterson & Seligman, 2004). The research questions are outlined below.

1. What is the relationship between perceived stress, subjective well-being, and mental health?
2. What is the relationship between character strengths and perceived stress levels?
3. What is the relationship between character strengths and subjective well-being as defined by satisfaction with life, positive and negative affect?
4. What is the relationship between character strengths and mental health?
5. What is the relationship between coping styles and perceived stress at work?
6. What is the relationship between work locus of control and sense of coherence with perceived stress?

In line with the positive psychology focus, the factors that result in eustress rather than distress will be highlighted.

The research hypotheses are outlined below.

1. It is hypothesised that perceived stress will be a negative predictor of well-being at work as measured by satisfaction with life (SWL), positive affect (PA), and mental health (GHQ) and a positive predictor of negative affect (NA) (see Figure 4.1).
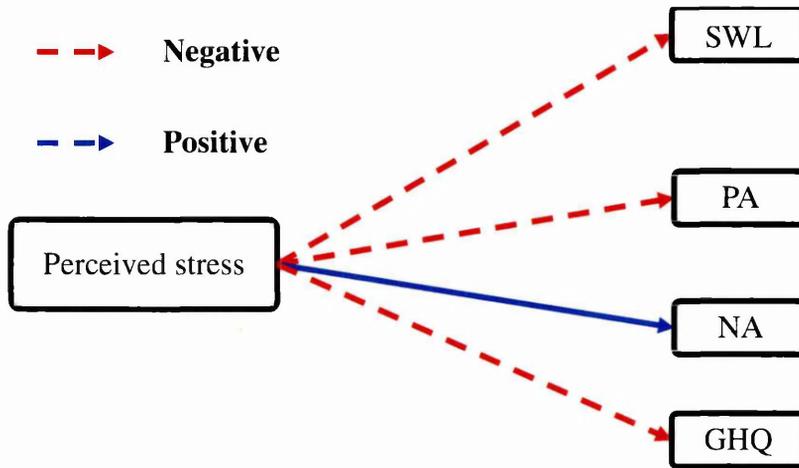
*Figure 4.1.*The hypothesis is that perceived stress will be a significant predictor of well-being (SWL, PA, NA), and mental health (GHQ).

2. It is hypothesised that problem-focused and emotion-focused coping styles will be predictive of lower stress at work, while denial and dysfunctional coping style will be predictive of higher perceived stress (see Figure 4.2).
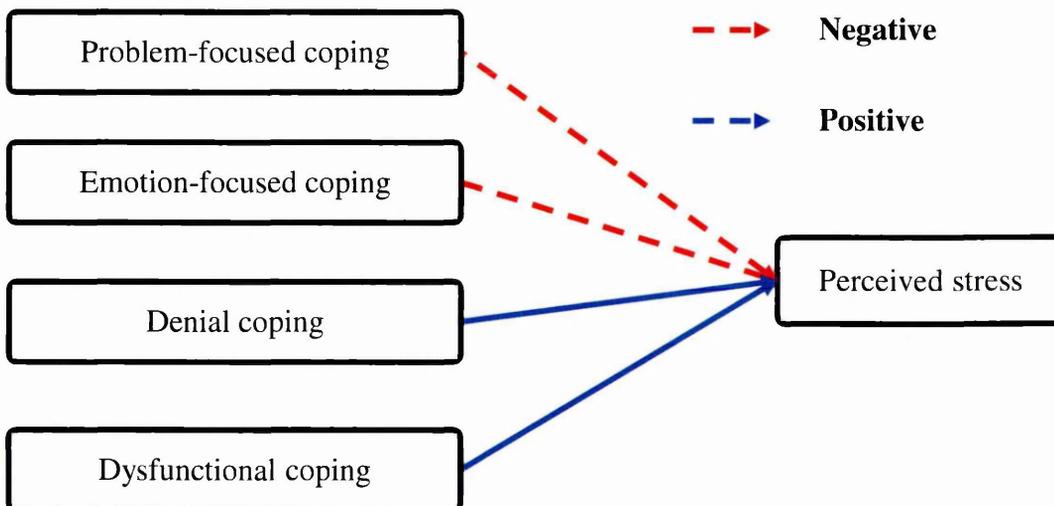
Figure 4.2. The hypothesised relationships between coping styles and perceived stress.

3. It is hypothesised from the literature that lower levels of work locus of control (WLC) and lower levels of sense of coherence (SoC) as work coping variables will predict increased perceived stress at work (see Figure 4.3).
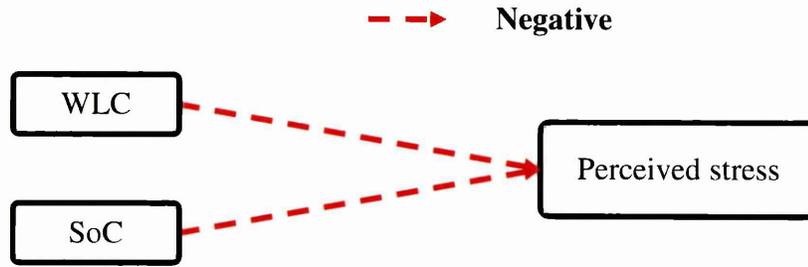
Figure 4.3.The hypothesised predictive of work coping variables (WLC & SoC) and perceived stress.

4. Based on the existing literature, it is hypothesised that character strengths will have a positive relationship with SWL, PA, and GHQ, and a negative relationship with NA (see Figure 4.4).
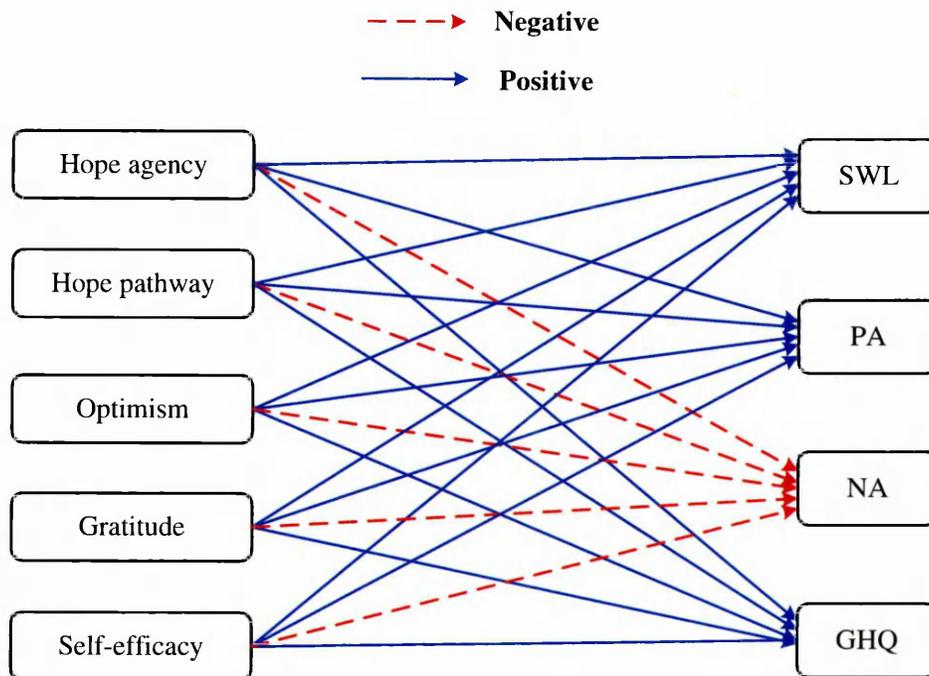
Figure 4.4.The hypothesised predictive of character strengths with well-being (SWL, PA, NA) and mental health (GHQ).

5. It is also hypothesised that higher levels of the character strengths of hope agency, hope pathway, optimism, gratitude, and self-efficacy will have a negative correlation with perceived stress (see Figure 4.5).
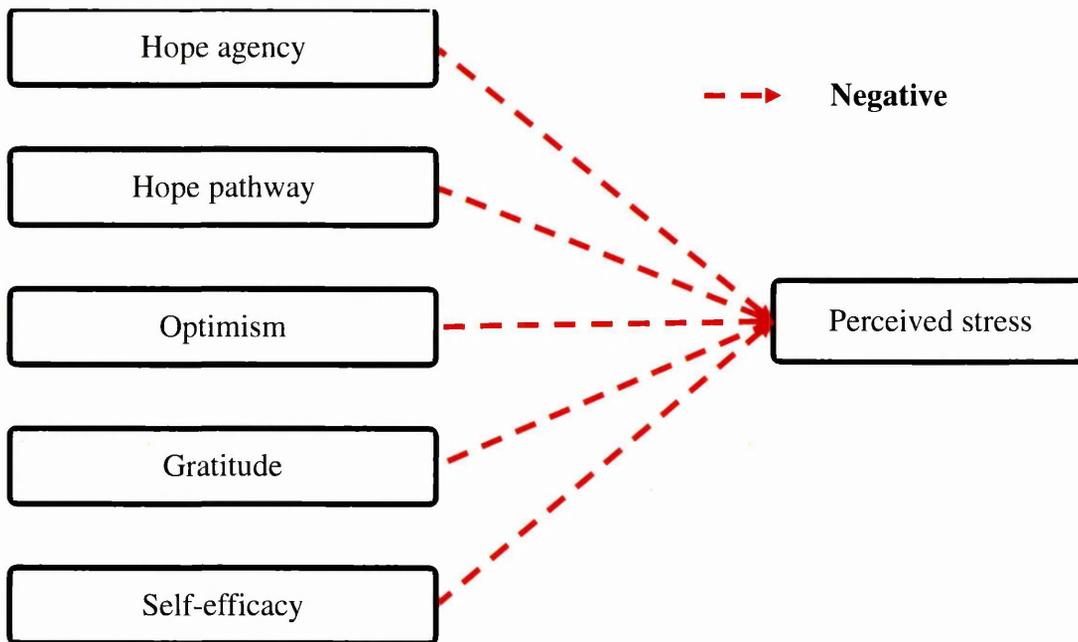
*Figure 4.5.*The hypothesised negative correlation of character strengths and perceived stress.

6. It is hypothesised that the interaction between stress and each of the character strengths (hope agency, hope pathway, optimism, gratitude, and self-efficacy) may affect well-being and mental health (see Figure 4.6-4.10).
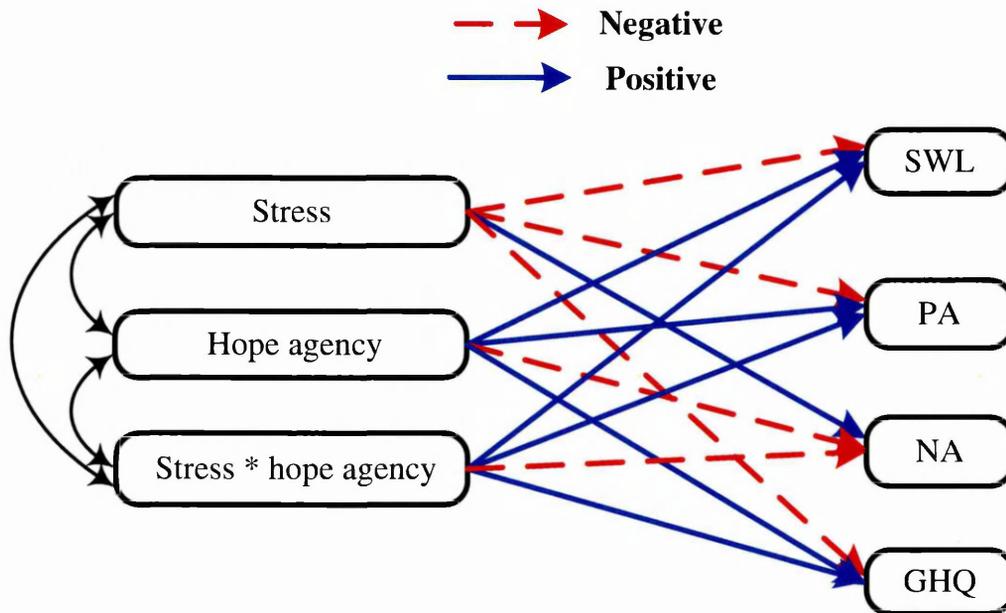
Figure 4.6. The hypothesised interaction between stress, hope agency, stress * hope agency and well-being (SWL, PA, NA), and mental health (GHQ).
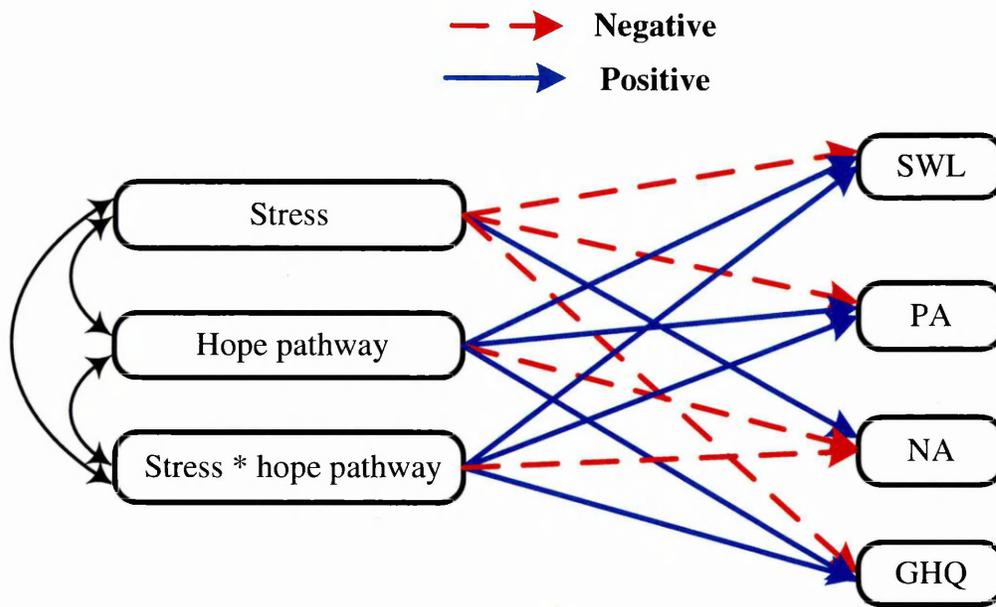
Figure 4.7. The hypothesised interaction between stress, hope pathway, stress * hope pathway and well-being (SWL, PA, NA), and mental health (GHQ).
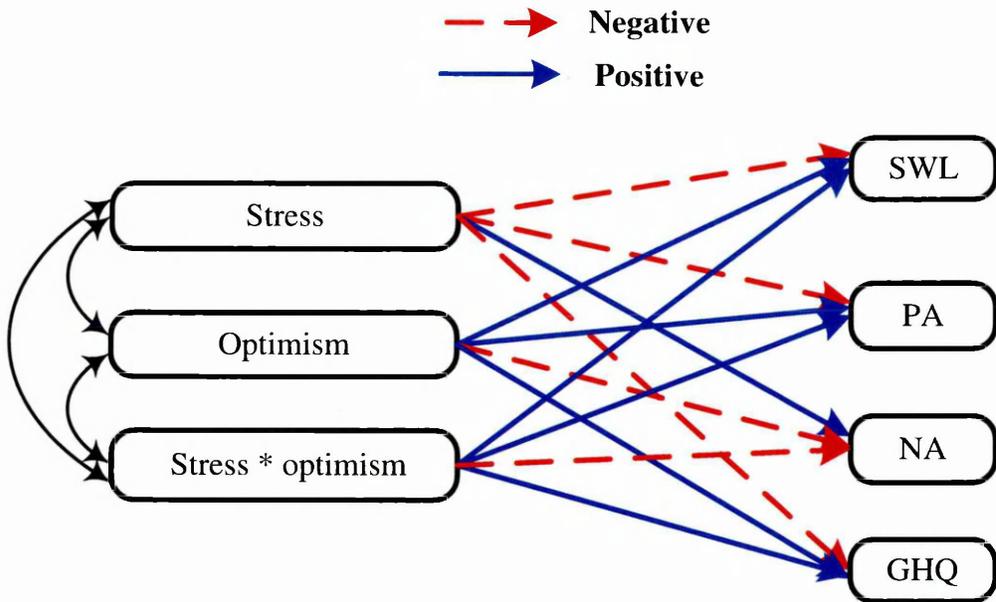
Figure 4.8. The hypothesised interaction between stress, optimism, stress * optimism and well-being (SWL, PA, NA), and mental health (GHQ).
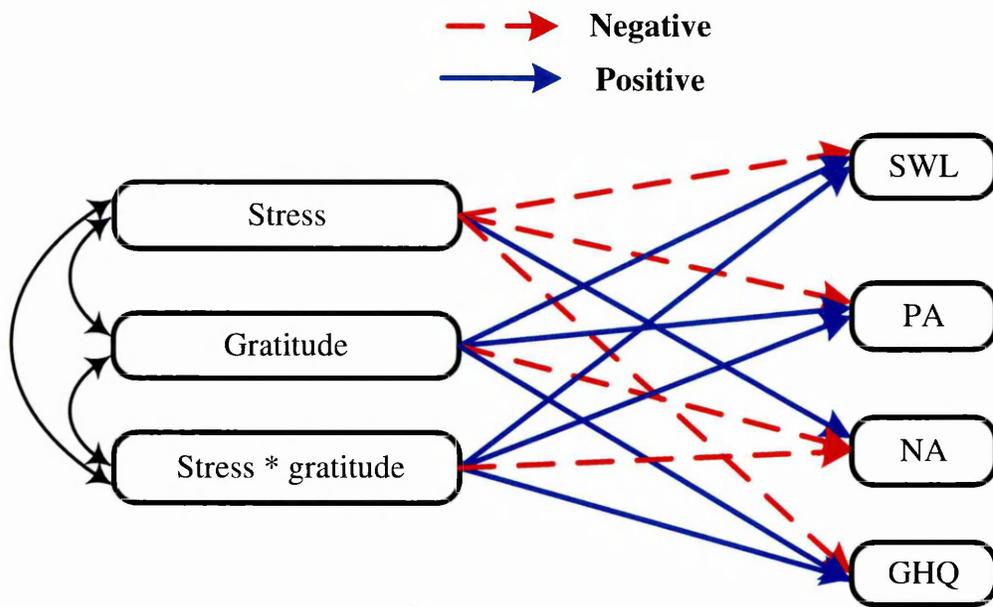
Figure 4.9. The hypothesised interaction between stress, gratitude, stress * gratitude and well-being (SWL, PA, NA), and mental health (GHQ).
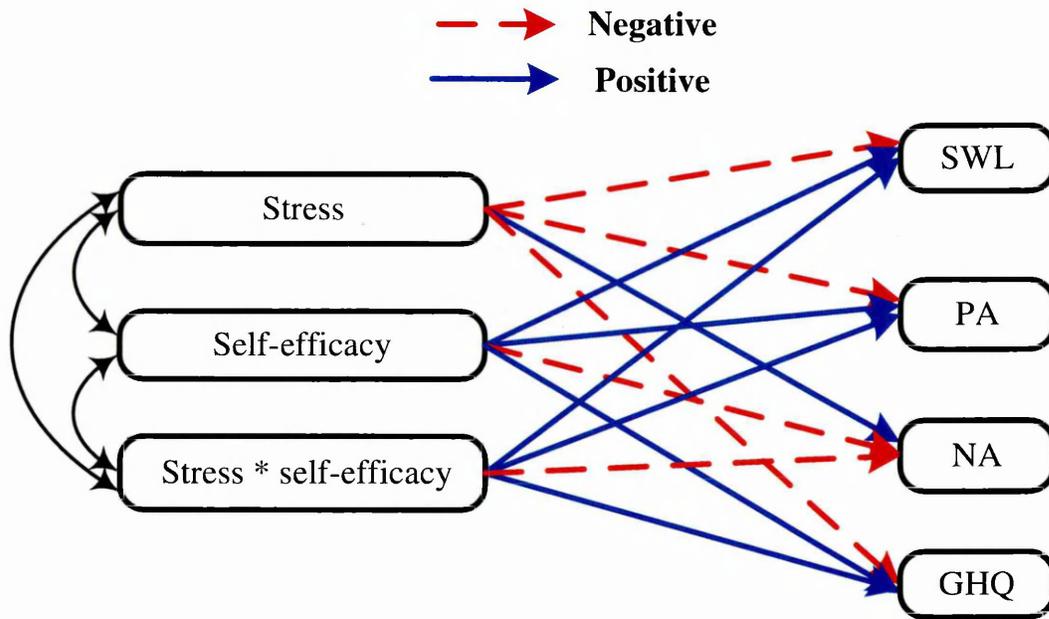
Figure 4.10. The hypothesised interaction between stress, self-efficacy, stress * self-efficacy and well-being (SWL, PA, NA), and mental health (GHQ).

Gender differences, full-time versus part-time, and job positions will be explored given the mixed results in previous research. A significant association between hope, optimism, and gratitude with well-being has also been found (McCullough et al., 2002). Wood et al. (2008) found that gratitude reduced stress at work (see also Duckworth, Steen, & Seligman, 2005; Emmons & McCullough, 2003). Bandura (1994) suggested self-efficacy can increase health and well-being. Shen (2008) found a significant relationship between self-efficacy and coping with stress. The role of self-efficacy as a positive character strength added to hope, optimism, and gratitude has not been studied in positive psychology literature or amongst academic staff. Hence, it will be examined in the current research.

4.3 Methods

4.3.1 Participants

Two hundred and sixteen academic staff from a UK university in the north of England took part in this study. The institution is a post-92 teaching-focused university. Participants included 144 female (66.7%), and 72 male (33.3%), with an average age of 46.39 years (SD=10.39), and age ranges of 23-66 (43 years).

The married participants comprised 60.6% (N=131), single 15.3% (N=33), civil partnership 0.9% (N=2), co-habited 15.7% (N=34), divorced 4.2% (N=9), widowed 0.5% (N=1), and 2.8% (N=6), did not disclose. In terms of ethnicity 92.1% (N=199) described themselves as white, 0.9% (N=2) black British, 0.9% (N=2) as black mixed race, 1.4% (N=3) Asian, 2.3% (N=5) mixed race, and 2.3% (N=5) did not disclose.

There were 72.2% (N=156) in full-time positions and the remainders 27.8% (N=60) were employed part-time job. In terms of academic grades, 7.9% (N=17) were associate lecturers, 6.5% (N=14) lecturers, 47.2% (N=102) senior lecturers, 15.3% (N=33) principal lecturers, 0.9% (N=2) readers, 3.7% (N=8) professors, 3.2% (N=7) SSG (Senior Staff Grade), 1.9% (N=4) research associate, 1.4% (N=3) research fellow, 2.3% (N=5) senior research fellow, 0.9% (N=2) principal research fellow, and 8.8% (N=19) did not disclose. The sample size was adequate based on Tabachnick and Fidell (2001) who suggest for the overall regression model, 186 participant are required (50 + 8 x number of independent variables). To test the individual predictors, 121 participants are required (104 + number of predictors; Tabachnick & Fidell, 2001).

4.3.2 Measures

Demographic information

Gender, age, marital status, ethnicity background, full-time/part-time job, job positions were asked in this study (see Appendix 2.1). However, gender differences, full-time versus part-time job, and seniority positions were examined.

Character strength scales

The Adult Hope Scale (AHS; Snyder et al., 1991). The scale was used to measure hope. It is made up of 12 items: 4 items measuring pathways thinking (e.g., "I energetically pursue my goals"), 4 items measuring agency thinking (e.g., "I meet the goals that I set for myself "), and 4 items used as distracters/filler items (see Appendix 2.2.3. The pathways items focus on a person's cognitive evaluation of his/her ability to produce routes to achieving his/her goals. The agency thinking items reflect a person's general goal determination in the past, present, and future. Respondents are asked to rate the extent of their agreement with these items using an 8-point Likert scale ranging from 1 (*definitely false*) to 8 (*definitely true*). The Cronbach's alpha estimates range from 0.74 to 0.88. Higher scores on the AHS show greater levels of hope.

The Life Orientation Test-Revised (LOT-R; Scheier, Carver, & Bridges, 1994). This is a 10-item measure of dispositional optimism. Six items measure optimism plus four filler items. Three items are positively worded (e.g.,"In uncertain times, I usually expect the best") and the other three are negatively worded (e.g.,"I rarely count on good things happening to me"). The three negatively worded items constitute the pessimism subscale, while the three positively worded items from the optimism subscale. Respondents are asked to rate the extent of their agreement with these items using a 5-point Likert scale ranging from 0 (*strongly disagree*) to 4 (*strongly agree*) (see Appendix 2.2.4). The Cronbach's alpha estimates range between 0.70 and 0.80. Higher scores on the LOT-R show levels of optimism and lower scores on the LOT-R show levels of pessimism.

The Gratitude Questionnaire (GQ; McCullough, Emmons, & Tsang, 2002), is a 6-item self-report questionnaire designed to assess individual differences in the inclination to experience gratitude in daily life (see Appendix 2.2.1). Items are statements such as ("I am grateful to a wide variety of people"). Respondents are asked to rate the extent of their agreement with these items using a 7-point Likert scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). Previous studies have shown that Cronbach's alpha are

between 0.76 and 0.84 (McCullough, Emmons, & Tsang, 2002). Higher scores on the GQ indicate higher levels of gratitude (McCullough et al., 2002).

The General Self-Efficacy scale (GSE; Jerusalem & Schwarzer, 1979). The scale consists of 10 items to measure individual's beliefs about their own abilities; for example ("I can always manage to solve difficult problems if I try enough"). Respondents are asked to rate the extent of their agreement with these items using a 4-point Likert scale ranging from 1 (*not at all true*) to 4 (*exactly true*) (see Appendix 2.2.8). In a sample of 23 nations, Cronbach's alphas from 0.76 to 0.90 were reported with the majority in the high .80s. Higher scores on the GSE represent greater levels of self-efficacy.

Stress scale

The Perceived Stress Scale (PSS; Cohen & Williamson, 1988), is a 10-item self-report scale that measures an individual's evaluation of stressful situations in the past month focusing on work stress (e.g., "In the last month, how often have you been upset because of something that happened unexpectedly?"). Respondents are asked to rate the extent of their agreement with these items using a 5-point Likert scale ranging from 0 (*never*) to 4 (*very often*) (see Appendix 2.2.10). The items 4, 5, 7, and 8 are reverse scored. Higher scores on the PSS show greater levels of perceived stress. The internal reliability estimates reported are $\alpha = 0.78$ (Cohen & Williamson, 1988).

Coping scale

The Brief COPE (Coping Orientation to Problems Encountered-Brief Version; Carver, 1997), is a short 28-item instrument with 14 subscales designed to measure levels of coping (see Appendix 2.2.11). The 14 subscales are ("self-distraction, denial coping, active coping, substance use, emotional support, instrumental support, behavioural disengagement, venting, positive reframing, planning, humour, acceptance, religion, and self-blame"), (Carver, 1997). Respondents are asked to rate the extent of their agreement with these items using a 4-point Likert scale ranging from 1 (*I usually don't do this at all*) to 4 (*I usually do this a lot*). The Brief COPE subscales have shown variable levels of reliability in past research for example denial $\alpha = 0.64$, drug use $\alpha = 0.90$, behavioural disengagement $\alpha = 0.66$, self-blame $\alpha = 0.64$ (Carver, 1997).

The Sense of Coherence Questionnaire (SoC; Antonovsky, 1987), is a 13-item measure consisting of three subscales (see Appendix 2.2.2). Five items measure comprehensibility, four items measure manageability and four items meaningfulness. An example of a comprehensibility item is: (''How often do you have the feeling that you are in an unfamiliar situations and don't know what to do?''). An example of a manageability item is: (''Do you have the feeling that you're being treated unfairly?''). An example of a meaningfulness item is: (''until now your life has had no clear goals''). Respondents are asked to rate the extent of their agreement with these items using a 7-point Likert scale ranging from1 (*never*) to 7 (*always*). Higher scores on the SoC show greater levels of sense of coherence. The Cronbach's alphas in 16 studies ranged from 0.74 to 0.91 (Antonovsky, 1993). The scale has been used in 33 languages in 32 countries and is deemed to be psychometrically reasonable (Antonovsky, 1993; Eriksson & Lindstorm, 2005).

The Work Locus of Control Scale (WLCS; Spector, 1988), is a 16-item measure of locus of control in workplaces. The work locus of control scale is preferred to Rotter's (1966) global measure of locus of control, as previous research has shown the domain-specific work locus of control to be more predictive of work behaviour than the global measure. An example of an internal locus of control item is, (''promotions are given to employees who perform well on the job''). An example of an external locus of control item is, (''Getting the job you want is mostly a matter of luck''). Respondents are asked to rate the extent of their agreement with these items using a 6-point Likert scale ranging from 1 (*disagree very much*) to 6 (*agree very much*) (see Appendix 2.2.6). The internal reliability coefficients ranged from 0.75 to 0.85 (Spector, 1988). High scores represent externality and low scores represent internality in the work locus of control scale.

Subjective well-being scales

The Satisfaction with Life Scale (SWLS; Diener, Emmons, Larsen, & Griffin, 1985), is a short, 5-item instrument designed to measure global cognitive judgements of satisfaction with one's life. For example (''in most ways my life is close to ideal''). Respondents are asked to rate the extent of their agreement with these items using a 7-point Likert scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*) (see

Appendix 2.2.9). Research has found reasonable psychometric properties for the scale with Cronbach's alpha of 0.76. Higher scores on the SWLS indicate greater levels of satisfaction with life.

The Positive and Negative Affect Scale (PANAS; Watson, Clark, & Tellegen, 1988), to measure the affective dimension of subjective well-being PANAS was used. The scale consists of a number of words that describe different feelings and emotions (see Appendix 2.2.5). The scale measures positive and negative affect with 20 items (10 PA items) and (10 NA items). Positive emotions include ("Proud") and negative emotions include ("Irritable"). Participants are asked to rate, the extent of their agreement with these items using a 5-point Likert scale ranging from 1 (*very slightly or not at all*) to 5 (*extremely*). Watson et al. (1988) calculated the Cronbach's alpha coefficients in different samples and found ranges for positive affect from 0.90 to 0.96, and for negative affect from 0.84 to 0.87 (Watson, Clark, & Tellegen, 1988). Other researchers have also reported the high internal consistency of PANAS; it provides a reliable index of what it claims to measure (Watson et al., 1988).

Mental health scale

The General Health Questionnaire (GHQ-12; Goldberg & Williams, 1988), is widely used in community and occupational settings as a measure of general distress over the past few weeks (see Appendix 2.2.7). The scale consists of 12 items (e.g., "Have you recently felt constantly under strain?") Respondents are asked to rate the extent of their agreement with these items using a 4-point Likert scale ranging from 1(*better than usual*) to 4 (*much less than usual*). The reliability coefficients ranged from 0.78 to 0.95 in various studies (Goldberg & Williams, 1988).To ensure consistency with the other measures; scores were reversed so that higher scores on the GHQ-12 represent better levels of mental health.

4.3.3 Procedures and ethics

An initial pilot study was conducted with 10 PhD students (one male and nine females students) who all undertook teaching. The aim was to reveal possible deficiencies in the design of the questionnaire, to address any unexpected problems, to estimate the time taken, and the comprehensibility of the instructions. No major problems with the measures were reported although some typing errors were corrected. Respondents all reported that the time taken for completion was reasonable.

All academic staff were informed of the purpose of the research through a staff electronic magazine. All details pertaining to the research study and their participation were described in the article including a direct link to the online survey (see Appendix 1.1). Upon being directed to the survey, the data provided by all participants was submitted anonymously to a central site. The participant group on average took around 25 minutes to complete the web-based survey. A reminder email was sent 6 weeks after advertisement in a format of group emails to different faculties. This thanked participants for their response and asked others if they would still like to respond. While participants were made aware of the purpose of the study in the staff electronic newsletter the first page of the online questionnaire also included further information. The contact details of the researcher and her director of studies were provided for any respondents who required further information on questionnaire. A debriefing section also provided (see Appendix 1.2).

The questionnaire began by requesting demographic information including gender, age, marital status, ethnicity, full time versus part time employment status, and job position (see Appendix 2.1). All the scales described above were entered in a random order with the exception of ensuring that the questionnaire began with a positive measure of strengths. Unfortunately the electronic survey software did not allow randomisation of questionnaire order once the scales had been uploaded, so it was not possible to test for any order effects.

The research study received favourable ethical review from the University Research Ethics Committee (see Appendix 9). It was made clear to participants that they could stop completing the questionnaire at any point and that by pressing the submit button at the end they were giving informed consent for their data to be used.

4.4 Results

A cross-sectional design was used to examine the relationship between character strengths and coping with stress, well-being, and mental health in a sample of university academics. Data were analysed using Factor analysis, MANOVA, correlations, intercorrelations, multiple linear regressions, and hierarchical multiple regressions. Analysis was undertaken using the statistical package SPSS for Windows version 19.

4.4.1 Factor analysis of the Brief COPE

As there is controversy in the literature about the number of factors in the Brief COPE scale, it was subjected to a principal component analysis (PCA) with varimax rotation.

To determine the number of factors to extract, four main criteria were considered: The scree test, the eigenvalues greater than 1.0, the amount of common variances explained by factors, and the meaningfulness of the rotated factors (Field, 2013; Pallent, 2005).

Principal component analysis was used to extract the factors, followed by a varimax rotation. This analysis extracted four factors with eigenvalues greater than 1.0, which together accounted for 59.65% of the variance in responding (see Table 4.1). The Kaiser-Meyer-Olkin (KMO) was .74, higher than the recommended value of .6.which is a reliable criterion when there are less than 30 variables (Kaiser, 1974; cited in Field, 2013). The Bartlett's Test of Sphericity was significant, supporting the factorability of the correlation matrix and using 28 items would greatly reduce the participant to variable ratio (Bartlett, 1954; cited in Field, 2013).

Table 4. 1 Principal components analysis for Brief COPE (N=216).

Factor	Eigenvalue	% of variance	α
1	3.17	24.34	.83
2	1.91	14.70	.84
3	1.52	11.66	.56
4	1.16	8.95	.57

As the participant group was over 200, the scree plots (see Figure 4.11) provided a fairly reliable criterion for the factor selection (Stevens, 1992; cited in Field, 2013). However scree plots are regarded as subjective and tend to have low inter-rater reliability plus the KMO analysis is suggested to overestimate the number of factors (Howitt & Cramer, 2011). For these reasons parallel analysis was also conducted to make sure the numbers of factors that were extracted from the PCA were accurate.
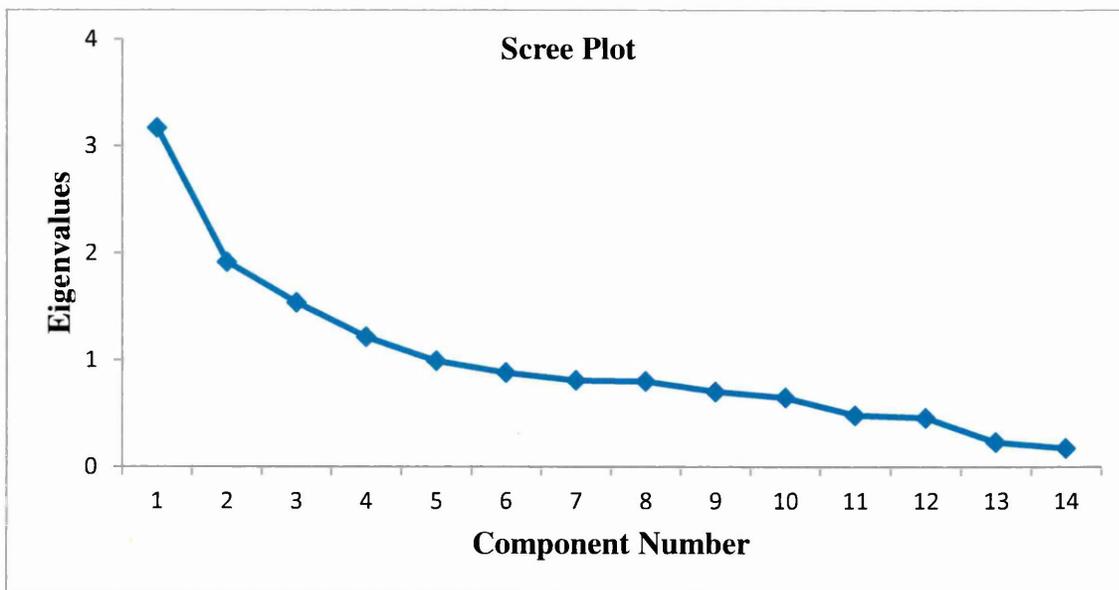
Figure 4.11. The scree plot of the PCA for the Brief COPE.

The parallel analysis data was computed with the same number of participants (216) and the same number of factors (four) as with the principal components analysis. One hundred replications were selected to average the random eigenvalues (Field, 2013). The Monte Carlo PCA programme was used to run the parallel analysis. The parallel analysis confirmed the presence of three factors in the brief COPE as the eigenvalues were lower than in the PCA for these factors (see Table 4.2). However, the literature on the Brief COPE Scale tends to report four factors (Carver, 1997) so an analysis using three factors could not be compared with the existing stress literature. This would be a major disadvantage. However the scree plots did confirm four-factor structures similar to those reported in the literature and scree plots are generally regarded to be the most suitable technique for factors identification (Howit & Cramer, 2011). For these reasons the four-factor solutions was used in subsequent analyses.

Table 4. 2 Comparison of parallel analysis and principal confirmatory analysis for Brief COPE (N=216).

Factor	Eigenvalues from PCA	Random eigenvalues from PA	Differences
1	3.17	1.53	1.63
2	1.91	1.39	.52
3	1.52	1.29	.23
4	1.16	1.22	-.06

A second indicator of the internal structure of the Brief COPE came from the reliability analysis. Table 4.3 includes the rotated components matrix and alpha reliabilities for the original 13 subscales. As previously mentioned the coping strategy of religion was omitted from the analysis as it did not load on any factor. This was also reported to be the case by Carver et al. in 1989. As can be seen in Table 4.3, planning, active coping, positive reframing, and acceptance loaded on factor one, all of which appear to represent problem-focused coping. Instrumental support, emotional support, and venting loaded on factor two, representing emotion-focused coping. Self-distraction, self-blame, and substance use loaded on factor three, which is labelled dysfunctional coping. Denial, behavioural disengagement, and humour loaded on factor four, representing denial coping.

The four factors structure of the brief COPE accounted for 59.65% of the total variance in the data, with the two top factors both together accounting for 39.14% of the variance. The four factors or components are classified as follows:

1. Problem-focused coping, eigenvalue=3.17, accounted for 24.34% of the variance and included planning coping strategy (.81), active coping strategy (.75), positive reframing strategy (.66), and acceptance (.65).

2. Emotion-focused coping, eigenvalue=1.91, accounted for 14.70% of the variance and included instrumental support (.91), emotional support (.90), and venting (.61).

3. Dysfunctional coping, eigenvalue=1.52, accounted for 11.66 % of variance and included self-distraction (.68), self-blame (.61), and substance use (.45).

4. Denial coping, eigenvalue=1.16, accounted for 8.95 % of variance and included denial (.80), behavioural disengagement (.52), and humour (.46).

These four subscales of coping are used in the subsequent analysis.

Table 4. 3 Factor loading on a principal components analysis with rotated component matrix for 26 items from the Brief COPE (N=216).

	1	2	3	4	α
Planning	.811				.78
Active coping	.745				.78
Positive reframing	.662				.79
Acceptance	.648				.40
Instrumental support		.905			.81
Emotional support		.898			.84
Venting		.612			.55
Self-distraction			.684		.28
Self-blame			.607		.79
Substance use			.446		.94
Denial				.799	.31
Behavioural disengagement				.520	.60
Humour				.458	.88

Note. 1=Problem-focused coping; 2=Emotion-focused coping; 3=Dysfunctional coping; 4= Denial coping.

4.4.2 Comparisons of female and male academics for all the study variables

A one-way between group multivariate analysis of variance (MANOVA) was conducted to investigate gender differences among academics. Seventeen dependent variables (all study variables) were used. The study variables included the level of stress, character strengths (hope, hope agency, hope pathway, optimism, gratitude, and self-efficacy), coping styles that extracted from the factor analysis of the Brief COPE (problem-focused, emotion-focused, dysfunctional, and denial coping), work coping variables (work locus of control and sense of coherence), subjective well-being (satisfaction with life, positive affect, and negative affect), and symptomatic mental health (GHQ). The

independent variable was gender. Preliminary assumption testing was conducted to check whether the data adapted to the requirement for conducting a MANOVA such as sample size, normality, linearity, univariate and multivariate outliers, homogeneity of regression, and multicolinearity (Pallant, 2005). The assumptions were not violated but some outliers were observed; however, re-running the analysis with the outliers removed did not affect the results so the real scores including the outliers were used. A non-significant Box's M test (p =.06) indicates homogeneity of covariance matrices of the all dependent variables. Therefore, Box's M test showed that there was no violation of the assumption of homogeneity of the variance-covariance matrices.

The results of multivariate analysis of variance showed that there were significant differences between males and females in the overall model F $(15,199) = 3.243$, p <.001; Wilks' Lambda λ=.804; (ηp^2) =.196. After applying a Bonferroni correction (p <.003) to control for the occurrence of Type I errors as a result of multiple testing, the variables of denial coping F $(1,214) = 18.37$, p <.003, and gratitude F $(1,214) = 8.75$, p <.003 were found to be significant. The effect size of denial coping d=.7 is a medium effect and for gratitude it is a small effect d =.4 estimated as Cohen (1988) classified. The results are displayed in Table 4.4. The mean scores of denial coping in male academics was slightly higher (M= 11.01, SD= 2.48) than female academics (M = 9.60, SD = 2.20). The mean scores of gratitude in female academics was slightly higher (M = 36.08, SD = 4.71) than male academics (M = 34.00, SD = 5.88).

It can be therefore concluded from the results that in terms of coping style male academics use more denial coping than female academics and the levels of gratitude is higher in female academics compared with male academics. However, as there were no significant differences in the levels of perceived stress, subjective well-being, and symptomatic mental health between the sexes the data was analysed as one data set.

Table 4. 4 Results of comparisons of female and male academics for all the study variables (N=216)

Variable	Females (N=144)			Males (N=72)			F	P	η^2
	M	CI95%	SD	M	CI95%	SD			
Stress	18.95	18.01,19.91	5.34	18.33	16.99,19.67	6.55	.56	.45	.003
Pf coping	17.70	17.09,18.32	3.82	17.90	17.03,18.77	3.52	.13	.71	.001
Ef coping	15.47	14.81,16.11	3.99	14.05	13.14,14.97	3.82	6.16	.01	.028
Dy coping	12.56	12.11,13.01	2.53	12.54	11.91,13.17	3.03	.002	.96	.000
De coping	9.59	9.20,9.96	2.20	11.01	10.48,11.55	2.49	18.37	.000	.079
WLC	56.14	54.82,57.48	7.76	58.15	56.28,60.03	8.66	2.96	.87	.014
SoC	55.73	54.48,56.98	6.63	55.29	53.53,57.05	9.21	.16	.69	.014
Hope	50.60	49.35,51.84	7.49	5.04	48.28,51.80	7.73	.25	.61	.000
Hope agency	25.90	25.27,26.53	3.82	25.40	24.42,26.37	4.14	.78	.38	.004
Hope pathway	24.60	23.87,25.31	4.37	24.64	23.61,25.66	4.36	.004	.95	.000
Optimism	22.40	21.74,23.07	3.98	21.15	20.21,22.09	4.14	4.60	.03	.021
Gratitude	36.08	35.24,36.93	4.71	33.89	35.69,35.08	5.89	8.76	.003	.039
Self-efficacy	30.70	30.04,31.38	3.83	30.90	29.96,31.84	4.46	.10	.75	.000
SWL	25.37	24.35,26.39	5.74	24.02	22.38,25.67	6.99	2.26	.13	.010
PA	34.89	33.65,36.13	7.33	33.61	31.85,35.36	7.94	1.39	.24	.006
NA	19.03	17.90,20.15	6.62	20.01	18.42,21.60	7.22	.99	.32	.005
GHQ	35.59	34.63,36.54	5.16	34.80	33.46,36.15	6.89	.87	.35	.004

Note. *p* <*.003* (Bonferroni correction). Problem-focused (Pf), Emotion-focused (Ef), Dysfunctional (Dy), Denial (De), Work Locus of Control (WLC), Sense of Coherence (SoC), Satisfaction With Life (SWL), Positive Affect (PA), Negative Affect (NA), Mental Health (GHQ).

4.4.3 Comparisons of full-time and part-time academics for all the study variables

The multivariate analysis of variance (MANOVA) was conducted to compare the scores of full-time versus part-time staff for all the study variables (see Table 4.5). The assumptions were not violated the assumptions of homogeneity of variance-covariance matrices and a non-significant Box's M test ($p =.027$) shows the equality of covariance matrices. However, the results of multivariate test revealed that there is no significant differences between full-time versus part-time staff for all the study variables and in particular for perceived stress, subjective well-being, and mental health F (15,199) $=1.021, p =.43$; Wilks' Lambada $\lambda =.93$; partial eta square (ηp^2) $=.071$. Therefore, the data was analysed as one data set.

Table 4. 5 Results of comparisons of full-time versus part-time academics for all the study variables (N=216).

Variable	Full-time (N=156)			Part-time (N=50)					
	M	$CI95\%$	SD	M	$CI95\%$	SD	F	P	η^2
Stress	19.08	18.17,19.92	5.85	17.86	16.39,19.34	5.5	1.92	.17	.009
Pf coping	17.93	17.34,18.52	3.76	17.36	16.40,18.31	3.58	1.02	.31	.005
Ef coping	14.76	14.13,15.38	4.17	15.63	14.61,16.65	3.39	2.05	.15	.010
Dy coping	12.50	12.07,12.93	2.53	12.70	12.00,13.39	3.03	.22	.64	.001
De coping	10.11	9.73,10.49	2.45	9.95	9.33,10.56	2.26	.19	.66	.001
WLC	56.51	52.23,57.79	8.86	57.64	55.56,59.72	5.64	.84	.36	.004
SoC	55.30	54.10,56.50	7.45	56.34	54.39,58.28	7.90	.80	.37	.004
Hope	50.65	49.46,51.84	7.73	49.76	47.82,51.70	7.12	.59	.44	.003
Hope agency	25.83	25.20,26.46	3.98	25.48	24.50,26.46	3.78	.34	.56	.002
Hope pathway	24.82	24.12,25.51	4.38	24.06	22.95,25.17	4.28	1.29	.26	.006
Optimism	22.10	21.43,22.72	4.14	21.75	20.70,22.79	3.92	.28	.59	.001
Gratitude	35.24	34.41,36.06	5.41	35.64	34.30,37.00	4.72	.26	.61	.001
Self-efficacy	30.91	30.27,31.55	4.23	30.42	29.38,31.46	3.53	.62	.43	.003
SWL	24.72	23.74,25.70	5.74	25.44	23.85,27.03	6.37	.57	.45	.003
PA	34.37	33.18,35.57	7.95	34.71	32.77,36.65	6.43	.08	.76	.000
NA	19.67	18.59,20.74	7.01	18.45	16.79,20.29	6.31	1.16	.20	.005
GHQ	35.08	34.17,36.09	5.97	35.97	34.48,37.45	5.29	.99	.32	.005

Note. p <.003 (Bonferroni correction). Problem-focused (Pf), Emotion-focused (Ef), Dysfunctional (Dy), Denial (De), Work Locus of Control (WLC), Sense of Coherence (SoC), Satisfaction With Life (SWL), Positive Affect (PA), Negative Affect (NA), Mental Health (GHQ).

4.4.4 Comparison of junior and senior academics for all the study variables

A MANOVA was performed to investigate job position differences with all the study variables although the main focus was on stress, subjective well-being, and mental health. The independent variable was job position consisting of staff from associate lecturer to senior staff grade (see descriptive section). Preliminary assumption testing was conducted to check whether the data conformed to the requirement for conducting a MANOVA such as sample size, normality, and homogeneity of regression (Pallant, 2005). The numbers in some categories were too small to allow meaningful comparisons so the staff group was classified into junior and senior staff. Group 1 consisted of junior staff (associate lecturer N=17, lecturer N=14, and senior lecturer N=102) and group 2 was made up of senior staff (principal lecture N=33, reader N=2, professor N=8, and SSG N=7. The total number of junior academics was N=133 and senior academics N=50. The assumptions were not violated and a non-significant Box's M test (p=.72) shows the equality of covariance matrices. The results are shown in Table 4.6. As there were no significance differences between the junior and senior staff grades on any of the variables F (15,166) =.81, p =.66; Wilks' Lambada λ =.93; partial eta square ($\eta\,p^2$) =.07, the data was analysed as one data set.

Table 4. 6 Results of comparisons of junior and senior academics for all the study variables (N=183).

Variable	Junior(N=133)			Senior(N=50)					
	M	*CI95%*	*SD*	*M*	*CI95%*	*SD*	*F*	*P*	η^2
Stress	19.04	18.07,20.02	5.68	17.74	16.16,19.32	5.63	1.92	.17	.011
Pf coping	17.54	16.91,18.18	3.67	18.78	18.18,19.81	3.71	4.07	.04	.022
Ef coping	15.14	14.45,15.82	4.00	14.80	13.68,15.91	3.98	.26	.61	.001
Dy coping	12.54	12.06,13.02	2.77	12.52	11.74,13.30	2.89	.001	.97	.000
De coping	10.23	9.83,10.63	2.39	9.90	9.25,10.55	2.20	.71	.40	.004
WLC	56.11	54.71,57.51	8.41	57.44	55.16,59.71	7.38	.96	.33	.005
SoC	55.60	54.30,56.90	7.84	57.72	55.60,59.83	6.83	2.84	.09	.016
Hope	49.80	48.55,51.04	7.68	53.22	51.20,55.24	5.92	8.09	.005	.043
Hope agency	25.53	24.89,26.17	3.72	27.14	26.21,28.06	3.23	7.23	.01	.038
Hope pathway	24.16	23.36,24.96	4.66	26.08	25.06,27.09	3.57	6.89	.01	.037
Optimism	21.86	21.20,22.53	3.81	23.42	22.34,24.50	4.00	5.89	.02	.032
Gratitude	35.25	34.40,36.10	5.26	36.40	35.02,37.78	3.99	1.96	.16	.011
Self-efficacy	30.64	29.95,31.32	4.00	31.74	30.60,32.86	4.00	2.75	.099	.015
SWL	24.94	23.93,25.95	6.14	26.58	24.94,28.22	5.02	2.84	.09	.016
PA	34.51	33.26,35.75	7.17	35.76	33.74,37.78	7.40	1.09	.29	.006
NA	19.48	18.29,20.68	7.11	18.12	16.18,20.06	6.47	1.40	.24	.008
GHQ	35.28	34.30,36.26	5.86	36.06	34.46,37.66	5.34	.67	.41	.004

Note. p <.003 (Bonferroni correction). Perceived Stress (PS), Problem-focused (Pf), Emotion-focused (Ef), Dysfunctional (Dy), Denial (De), Work Locus of Control (WLC), Sense of Coherence (SoC), Satisfaction With Life (SWL), Positive Affect (PA), Negative Affect (NA), Mental Health (GHQ).

As there were no significant differences in the levels of stress and the outcome measures of interest namely stress, SWB, and GHQ the data was analysed as one data set.

4.4.5 Descriptive statistics for total sample

The means, confidence intervals, standard deviations, ranges, and alpha coefficients for all the study variables are presented in Table 4.7. The study variables in the current study included; measures of perceived stress, coping strategies (problem-focused coping, emotion-focused coping, dysfunctional coping, and denial coping) that were extracted after conducting factor analysis of the Brief COPE measure, work coping variables (work locus of control and sense of coherence), character strengths (hope, hop agency, hope pathway, optimism, gratitude, and self-efficacy), subjective well-being (satisfaction with life scale, positive affect, and negative affect), and a measure of mental health (the general health questionnaire, GHQ-12). It should be noted here that the hope scale included agency thinking and pathways thinking. The alpha levels for most of the measures are satisfactory being greater than the recommended .70 or near to.70 (Pallant, 2005).

Table 4. 7 Means, confidence intervals, standard deviations, ranges, and alpha coefficients for all the study variables (N=216).

Variable	Mean	*CI95%*	*SD*	Range	α
Stress	18.75	17.97, 19.52	5.75	4-32	0.81
Problem-focused coping	23.84	17.27, 18.27	4.38	9-32	0.83
Emotion-focused coping	15.01	14.47, 15.54	3.98	6-24	0.84
Dysfunctional coping	12.58	12.21, 12.94	2.72	7-23	0.54
Denial coping	10.09	9.77, 10.42	2.43	6-17	0.57
Work locus of control	56.81	55.73, 57.9	8.10	25-81	0.63
Sense of coherence	55.57	54.56, 56.59	7.56	28-73	0.74
Hope	50.35	49.33, 51.37	7.60	23-64	0.87
Hope agency	25.74	25.20, 26.26	3.93	11-32	0.80
Hope pathway	24.61	24.02, 25.19	4.36	8-32	0.85
Optimism	21.98	21.43, 22.52	4.06	10-30	0.84
Gratitude	35.32	34.62, 36.02	5.22	16-42	0.71
Self-efficacy	30.77	30.23, 31.31	4.04	19-40	0.90
Satisfaction With Life	24.90	24.07, 25.73	6.19	5-35	0.87
Positive Affect	34.45	33.44, 35.46	7.53	16-50	0.90
Negative Affect	19.36	18.45, 20,27	6.82	10-46	0.86
Mental Health	35.33	34.55, 36.1	5.78	14-45	0.89

Table 4.7 shows a comparison of the mean scores for all the study variables in the sample of academics. In order to assess how stressed the current sample was, comparisons were made with the mean general population sample in the literature. Cohen and Williamson (1988) reported mean scores and standard deviations for the PSS-10 in a general population study among 2,387 participants in the U.S. They reported ($M = 12.6$, $SD = 6.1$) which when compared with the current study's finding as presented in Table 4.6 shows that academics in the present study experienced more stress ($M = 18.75$, $SD = 5.75$, $d = 1.04$) compared with Cohen and Williamson's samples (1988).

4.4.6 Correlations of stress, coping styles, work coping variables, character strengths, demographic information with subjective well-being and mental health

For completeness, Pearson's product moment correlation coefficients were computed to assess the association between stress, coping styles, work coping variables, character strengths, demographic information (gender, age, marital status, full-time versus part-time staff, and job position) with subjective well-being, and mental health. The demographic information did not correlate significantly with any of the variables so it is not included in future analysis. Preliminary analyses were implemented to make sure no violation of the assumptions of normality, linearity, and homogeneity of variance had accrued. The correlation was used to explore the relationship among a group of variables, the results of which are shown in Table 4.8. This shows that stress was negatively correlated with SWL, PA, and GHQ, and positively associated with NA. Problem-focused coping was positively associated with SWL, PA, and GHQ, and was negatively associated with NA. Emotion-focused-coping was positively associated with SWL and PA, but no relationship was found with NA and GHQ. Dysfunctional coping was positively associated with NA and negatively associated with GHQ, and no relationship was found with SWL and PA. As presented in Table 4.8, no significant relationship was found between denial coping, satisfaction with life, positive affect, negative affect, and mental health. Work locus of control was positively associated with SWL and PA but no relationship was found with NA and GHQ. Sense of coherence was positively associated with SWL, PA, and GHQ, and negatively associated with NA. Hope, hope agency, hope pathway, optimism, gratitude, and self-efficacy positively associated with SWL, PA, and GHQ, and negatively associated with NA.

Table 4. 8 Correlations of stress, coping styles, work coping variables, and character strengths with subjective well-being and mental health (N=216).

Variable	SWL	PA	NA	GHQ
Stress	-.40**	-.45**	.56**	-.57**
Problem-focused coping	.46**	.54**	-.27**	.35**
Emotion-focused coping	.24**	.29**	-.05	.13
Dysfunctional coping	-.10	-.12	.32**	-.15*
Denial coping	-.05	.05	.16	.11
WLC	.20**	.18**	-.05	.10
SoC	.53**	.43**	-.54**	.47**
Hope	.55**	.43**	-.54**	.47**
Hope agency	.56**	.59**	-.21**	.32
Hope pathway	.44**	.56**	-.30**	.32**
Optimism	.56**	.57**	-.40**	.38**
Gratitude	.52**	.54**	-.35**	.40**
Self-efficacy	.50**	.56**	-.38**	.41**

Note. *p <.05, **p <.01. Work Locus of Control (WLC), Sense of Coherence (SoC), Satisfaction With life (SWL), Positive Affect (PA), Negative Affect (NA), Mental health (GHQ).

4.4.7 Intercorrelations between all the study variables

Intercorrelations between all the study variables are displayed in Table 4.9. It can be seen that stress shows a significant negative association with problem-focused coping, work coping variables (work locus of control and sense of coherence), character strengths of hope, hope agency, hope pathway, optimism, gratitude, and self-efficacy, and subjective well-being (satisfaction with life, positive affect, and negative affect), and mental health (GHQ). Stress also shows a significant positive association with dysfunctional coping and negative affect.

Table 4. 9 Intercorrelations between all the study variables (N = 216)

Variable	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1.Stress	-.43**	-.02	.19**	.05	.17*	-.48**	-.38**	-.32**	-.38**	-.44**	-.29**	-.45**	-.40**	-.45**	.56**
2.Pf coping		.32**	-.02	.03	.25**	.38**	.65**	.60**	.60**	.50**	.40**	.60**	.46**	.54**	-.27**
3.EF coping			.16*	.09	.09	.03	.25**	.30**	.17*	.15*	.30**	.19**	.24**	.29**	-.05
4.Dy coping				.27**	-.11	-.31**	-.09	-.04	-.13	-.19**	-.07	-.14*	-.09	-.11	.32**
5.Denial coping					.07	-.12	-.03	-.05	-.01	-.05	-.09	-.02	-.05	.05	.15*
6.WLC						.16*	.26**	.20**	.28**	.19**	.19**	.26**	.20**	.18**	-.05
7.SoC							.47**	.38**	.47**	.57**	.43**	.43**	.53**	.43	-.54**
8.Hope								.91**	.93**	.68**	.44**	.69**	.55**	.62**	-.28**
9.Hope agency									.68**	.60**	.38**	.64**	.56**	.59**	-.21**
10.Hope pathway										.65**	.43**	.62**	.44**	.55**	-.30**
11.Optimism											.46**	.53**	.55**	.57**	-.40**
12.Gratitude												.32**	.52**	.54**	-.35**
13.Self-efficacy													.50**	.56**	-.38**
14.SWL														.55**	-.39**
15.PA															-.38**
16.NA															
17.GHQ															

Note. *p < .05 **p <.01. Problem-focused (Pf), Emotion-focused (Ef), Dysfunctional (Dy), Denial (D), Work Locus of Control (WLC), Sense of Coherence (SoC), Satisfaction With Life (SWL), Positive Affect (PA), Negative Affect (NA), Mental Health (GHQ).

4.4.8 Multiple linear regressions analyses of work coping variables and coping styles to predict stress

Exploring work coping variables as predictors of stress

Multiple regressions were conducted to investigate the ability of work coping variables to predict stress in academic staff. In order to maximise the reliability of the results a reasonable sample size is required. Some authors suggest 15 participants per independent variable, or that the sample size should be 50 larger than the number of independent variables (Clark-Carter, 2004; cited in Field, 2013). Following these guidelines, the minimum sample size required was N=140. With a sample size of N=216 the current study exceeded this.

The data set was explored to ensure that the requirements for multiple regressions were not violated. The collinearity diagnostics on variables were examined first. No correlations between independent variables (IVs) were above .8; variance inflation factors (VIF) were all less than 10; and the tolerance statistics were above .1, therefore suggesting multicollinearity was not a problem in the data (Field, 2013). A standard multiple regressions analysis was conducted to examine the relationship between work coping variables (work locus of control and sense of coherence) and stress. The results of the regressions indicated that the overall model was significant and able to account for 24% of the variance in stress scores R^2 =.24, F (2,212) =35.50, p <.001. As can be seen in Table 4.10, sense of coherence was the unique statistically significant predictor of stress at work.

Table 4. 10 Multiple regressions of work coping variables with stress (N=216).

Variable	B	β
Work locus of control	-.07	-.09
Sense of coherence	-.35	-.46***

*Note. *p <.05 **p <.01 ***p <.001.*

The second multiple regressions analysis examined the ability of coping styles (problem-focused coping, emotion-focused coping, dysfunctional coping, and denial coping) to predict stress. These four coping styles were extracted from factor analysis of the Brief COPE. The results of the multiple regressions are shown in Table 4.11. The overall model was significant and able to account for 23% of the variance in stress scores, $R^2 = .23$, F (4,210) =15.34, p < .001. Problem-focused coping negatively predicts stress; in other words applying problem-focused coping is predictive of experiencing less stress. Dysfunctional coping is a positive predictor of stress and emotion-focused coping and denial coping styles were not significant unique predictors in the model.

Table 4. 11 Multiple regressions of coping styles with stress (N=216).

Variable	B	β
Problem-focused coping	-.71	-.46***
Emotion-focused coping	.15	.10
Dysfunctional coping	.34	.16**
Denial coping	.03	.01

*Note.*p <.05 **p <.01 ***p <.001.*

4.4.9 Hierarchical multiple regression analyses of stress and character strengths with subjective well-being and mental health

To examine whether stress, character strengths, stress by character strengths interactions predicted subjective well-being (SWL, PA, NA) and mental health (GHQ) four hierarchical multiple regressions were computed in three steps. Step 1 examined the relationship between stress with each component of well-being and mental health separately. Step 2 was the inclusion of character strengths (hope agency, hope pathway, optimism, gratitude, and self-efficacy with each component of well-being (SWL, PA, NA) and mental health (GHQ). Finally Step 3 was the inclusion of moderator variables (stress * hope agency, stress * hope pathway, stress * optimism, stress * gratitude, and stress * self-efficacy) with well-being and mental health. The hierarchical multiple regression analyses were conducted to evaluate the predictive power of stress, hope (hope agency and hope pathway), optimism, gratitude, and self-efficacy in subjective well-being (SWB) and mental health (GHQ). The interaction of stress and character

strengths was also examined. Preliminary analyses were conducted and showed that there were no major violations of the assumptions of normality, and linearity, and no outliers were identified (Howitt & Cramer, 2011). Collinearity diagnosis indicated that no correlations between independent variables (IVs) were above .8; variance inflation factors (VIF) were all below 10; and the tolerance statistics were above .1, hence suggesting multicollinearity was not a problem in the data (Field, 2013). As explained above, the sample size was large enough to achieve sufficient power. The hierarchical format of the analysis consisted of three stages with the inclusion of perceived stress at each stage of the regression. Perceived stress was entered first to assess the relationship of stress with subjective well-being components (SWL, PA, NA) and mental health (GHQ). For the second stage hope agency, hope pathway, optimism, gratitude, and self-efficacy were added to perceived stress to evaluate the additional contribution of character strengths to perceived stress in explaining the variances in SWB and GHQ. In the third stage, the interaction between stress and each character strength was added to the model to examine whether character strengths moderate the effect of stress on well-being and mental health. Calculating the hierarchical multiple regression involves the preliminary step of converting all of the variables to z-scores using SPSS Windows version 21 (Howitt & Cramer, 2011). In addition, an interaction term was generated by multiplying the z-scores of the moderator variables (character strengths) by the scores on perceived stress. To summarize the process, first the independent variables (stress, hope agency, hope pathway, optimism, gratitude, and self-efficacy) were centred to address collinearity between the main effects and interaction effects before being entered into the regression model. Next an interaction term between stress and each character strength was created (Aiken & West, 1991). The interaction term between stress and each character strength and well-being (SWL, PA, NA) and mental health (GHQ) was added to the hierarchical multiple regression model. The values of the moderator variables (character strengths) were chosen at above and below median (Howitt & Cramer, 2011). Simple regression lines were generated to introduce these values into the regression equation to represent the relationship between stress, character strengths, and subjective well-being and mental health (GHQ) at above and below the median levels of the moderator variables. If the interactions of stress and character strengths with subjective well-being and mental health were significant, a simple slope analysis was then computed (Aiken & West, 1991). However for simple slope analyses individuals below median are identified as a group 1 and those above median are identified as a group 2 (see Figures 4.12).

For satisfaction with life (SWL), it can be seen from Table 4.12, stress was a significant negative predictor of SWL accounting for 16% of variance at Step 1. The inclusion of the character strengths (hope agency, hope pathway, optimism, gratitude, and self-efficacy) at Step 2 explained a greater part of the variance in comparison with stress alone, with the second model accounting for 49% of the variance in SWL ($F (6, 208) = 33.83$, $p <.001$) in comparison with stress alone 16% of the variance in satisfaction with life ($F (1 , 214 = 41.09$, $p <.001$). In Step 3 the inclusion of moderator variables (stress * hope agency, stress * hope pathway, stress * optimism, stress * gratitude, and stress * self-efficacy) explained a greater part of the variance in comparison with stress alone, with the overall model accounting for 5% of the variance in SWL ($F (11, 203) = 18.92$, $p < .001$), in comparison with 16% of the variance accounted for by stress alone ($F (1, 213 = 41.09$, $p <.001$). The R^2 for perceived stress and satisfaction with life (SWL) at Step 1 was .16 and the R^2 for the model that included perceived stress and character strengths in SWL at Step 2 was .49, and the R^2 for the model that included perceived stress, character strengths, and stress by character strengths interaction at Step 3 was .51. In other words the change in R^2 shows 33% was added to the model by the addition of character strengths at Step 2 and 2% was added to the model by adding moderator variable at Step 3 in SWL.

However, there were no statistically significant interactions between stress and any of the character strengths and satisfaction with life suggesting that none of the character strengths moderated the relationship between stress and satisfaction with life.

In terms of significant unique predictors, hope agency, gratitude, optimism, and self-efficacy were the strongest positive predictors of satisfaction with life, in that order, while hope pathway negatively predicted SWL, as did levels of perceived stress.

Table 4. 12 Hierarchical regressions of stress, character strengths, and moderator variables with satisfaction with life (N=216).

Variables	B	SEb	β	R²	R²change
Step1					
Stress	-.43	.07	-.40***	.16	.16
Step 2					
Stress	-.13	.06	-.12*	.49	.33
Hope agency	.49	.12	.31***		
Hope pathway	-.23	.11	-.17*		
Optimism	.33	.11	.21*		
Gratitude	.30	.07	.30***		
Self-efficacy	.22	.11	.14*		
Step 3					
Stress	-.16	.06	-.15*	.51	.02
Hope agency	.39	.13	.25**		
Hope pathway	-.22	.12	-.15		
Optimism	.33	.12	.22**		
Gratitude	.32	.07	.27***		
Self-efficacy	.25	.11	.17*		
Stress * hope agency	.86	.47	.14		
Stress * hope pathway	-.29	.56	-.04		
Stress * optimism	.22	.48	.04		
Stress * gratitude	.20	.35	.04		
Stress * self-efficacy	-.35	.43	-.06		

Note. *p <.05**p <.01***p <.001.Satisfaction With life (N=216): Stress step 1; $R = .40$, R² = .16, $\Delta R^2 = .16$, F (1,213) = 41.09, (p < .001). Stress step 2; $R = .70$, $R^2 = .49$, $\Delta R^2 = .48$, F (6.208) = 33.83, (p <.001). Stress step 3; $R = .71$, $R^2 = .51$, $\Delta R^2 = .48$, F (11.203) = 18.92, (p < .001).

Positive affect

For positive affect (PA), stress was a significant negative predictor of PA accounting for 20% of the variance at Step 1 as shown in Table 4.13. The inclusion of the character strengths accounting for a greater amount of the variance in comparison with stress alone, Step 2 accounted for 54% of the variance in positive affect (F (6, 208) = 41.02, p <.001) in comparison with 20% of the variance accounted for by stress alone (F (1, 213)

= 54.67, $p < .001$). In Step 3, the inclusion of moderator variables (stress * hope agency, stress * hope pathway, stress * optimism, stress *gratitude, and stress * self-efficacy), in the model explained a greater part of the variance in comparison with stress alone, with the overall model accounting for 54% of the variance in PA (F (11, 203) = 22.06, $p < .001$), in comparison with 20% of the variance accounted for by stress alone (F (1 , 213 = 54.67, $p < .001$). The R^2 for perceived stress in positive affect (PA) in Step 1 was .20 and the R^2 for the model that included perceived stress and character strengths in PA at Step 2 was .54, and the R^2 for the model that included perceived stress, character strengths, and stress by character strengths interaction at Step 3 was .54.The change in R^2 shows 33% was added to the model by the addition of character strengths in Step 2 and .003 was added to the model by adding moderator variables at Step 3 for PA. However this value was very close to but not identical to the R^2 value that obtained at Step 2.

Adding character strengths increased the variance accounted for by 33%. However adding stress * character strengths interactions did not increase variance accounted for by the model. The character strengths did not moderate the relationship between stress and positive affect (see Table 4.13). In terms of significant predictors, gratitude, hope agency, and self-efficacy positively predicted positive affect in that order of magnitude, while stress was a negative predictor.

Table 4. 13 Hierarchical regressions of stress, character strengths and moderator variables with positive affect (N=216).

Variables	B	SEb	β	R^2	R^2change
Step1					
Stress	-.59	.08	-.45***	.20	.20
Step 2					
Stress	-.20	.07	-.16***	.54	.34
Hope agency	.48	.14	.25***		
Hope pathway	.01	.13	.01		
Optimism	.23	.13	.13		
Gratitude	.41	.08	.28***		
Self-efficacy	.33	.13	.17**		
Step 3					
Stress	-.19	.08	-.15**	.54	.003
Hope agency	.53	.15	.28**		
Hope pathway	.02	.14	.01		
Optimism	.22	.13	.12		
Gratitude	.42	.08	.29***		
Self-efficacy	.31	.13	.16*		
Stress * hope agency	-.40	.55	-.05		
Stress * hope pathway	-.15	.65	-.02		
Stress * optimism	.09	.56	.01		
Stress * gratitude	-.17	.40	-.03		
Stress * self-efficacy	.41	.51	.06		

Note.*p <.05 **p <.01 ***p <.001.*Positive affect* (N = 216): Stress step1; R= .45, R^2 = .20, ΔR^2 = .20, F (1,213) = 54.67, (p <.001). Stress step 2; R =.74, R^2 =.54, ΔR^2 = .53, F (6, 208) = 41.02, (p <.001). Stress step 3; R =.74, R^2 =.54, ΔR^2 = .52, F (11, 203) = 22.06, (p <.001).

Negative affect

For negative affect (NA), it can be seen from Table 4.14 stress was a significant positive predictor of NA accounting for 32% of the model at Step 1 (see Table 4.14). The inclusion of the character strengths at Step 2 explained a greater proportion of the variance in comparison with stress alone, with the second model accounting for 39% of the variance (F (6, 208) = 22.07, *p* <.001) in comparison with 32% of the variance

accounted for by stress alone (F (1 , 213) = 98.22, p <.001). In Step 3 the inclusion of moderator variables (stress * hope agency, stress * hope pathway, stress * optimism, stress * gratitude, and stress * self-efficacy), explained a greater part of the variance in comparison with stress alone, with the overall model accounting for 40% of the variance in NA (F (11 , 203) = 12.05, p < .001) in comparison with 32% of the variance accounted for by stress alone (F (1 , 213 = 98.22, p <.001). The R^2 for perceived stress and negative affect (NA) at Step 1 was .32 and the R^2 for the model that included perceived stress and character strengths in NA at Step 2 was .39, and the R^2 for the model that included perceived stress, character strengths, and stress by character strengths interaction at Step 3 was .40. The variance slightly increased by adding character strengths. Adding stress * character strengths interactions only resulted in minor increases in variance. The change in R^2 shows 7% was added to the model by the addition of character strengths at Step 2 and 1% was added to the model by adding potential moderator variables at Step 3 in NA. None of the character strengths moderated the relationship between stress and NA (see Table 4.14). In terms of significant predictors, gratitude, hope agency, self-efficacy, and optimism were negative significant predictors of negative affect while stress was a positive predictor.

Table 4. 14 Hierarchical regressions of stress, character strengths and moderator variables with negative affect (N=216).

Variables	B	SEb	β	R²	R²change
Step1					
Stress	.59	.08	.45***	.32	.32
Step 2					
Stress	.20	.07	.16***	.39	.07
Hope agency	.48	.14	-.25*		
Hope pathway	.01	.13	-.01		
Optimism	.23	.13	-.13*		
Gratitude	.41	.08	-.28**		
Self-efficacy	.33	.13	-.17*		
Step 3					
Stress	.19	.08	.15	.40	.01
Hope agency	.53	.15	-.28*		
Hope pathway	.02	.14	-.01		
Optimism	.22	.13	-.12		
Gratitude	.42	.08	-.29**		
Self-efficacy	.31	.13	-.16*		
Stress * hope agency	-.40	.55	-.05		
Stress * hope pathway	-.15	.65	-.02		
Stress * optimism	.01	.56	-.01		
Stress * gratitude	-.17	.40	-.03		
Stress * self-efficacy	.41	.51	-.06		

Note. *$p < .05$ **$p < .01$ ***$p < .001$. Negative affect (N=216): Stress step 1; R=.56, R² = .32, ΔR² =.31 F (1,213) = 98.22, ($p < .001$). Stress step 2; $R = .62$, $R² = .39$, $ΔR² = .37$, F (6,208) = 22.07, ($p < .001$). Stress step 3; $R = .63$, $R² = .40$, $ΔR² = .36$, F (11,203) = 12.05, ($p < .001$).

Mental health

For mental health (GHQ), stress was a significant negative predictor of GHQ accounting for 32% of the variance at Step as summarised in Table 4.15. The inclusion of the character strengths at Step 2 explained a greater amount of the variance in comparison with stress alone, with the second model accounting for 40% of the variance (F (6 , 208) = 22.96, $p < .001$) in comparison with 32% of the variance

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accounted for by stress alone (F (1, 213) = 101.94, p <.001). It can be seen from Table 4.15 that in the third model (Step 3) the inclusion of moderator variables (stress * hope agency, stress * hope pathway, stress * optimism, stress * gratitude, and stress * self-efficacy), to the model explained a greater part of the variance in comparison with stress alone, with the overall model accounting for 42% of the variance in GHQ (F (11 , 203) = 12.05, p < .001) in comparison with 32% of the variance accounted for by stress alone (F (1 , 213 = 101.94, p <.001). The R^2 for perceived stress in mental health (GHQ) in the first model was .32 and the R^2 for the second model that included perceived stress and character strengths in GHQ was .40, and the R^2 for the third model that included perceived stress, character strengths, and stress by character strengths, the interaction was .42. The change in R^2 shows 8% was added to the second model by the addition of character strengths and 2% was added to the third model by adding moderator variables in GHQ. Optimism was a significant moderator of the relationship between stress and mental health. In terms of significant predictors only gratitude positively predicted mental health, while stress was a negative predictor.

Table 4. 15 Hierarchical regressions of stress, character strengths and moderator variables with mental health (N=216).

Variables	B	SEb	β	R²	R²change
Step1					
Stress	-.57	.06	-.57***	.32	.32
Step 2					
Stress	-.44	.06	-.44***	.40	.08
Hope agency	.06	.12	.04		
Hope pathway	-.12	.11	-.09		
Optimism	.06	.11	.04		
Gratitude	.25	.07	.22***		
Self-efficacy	.20	.11	.14		
Step 3					
Stress	-.43	.07	-.42***	.42	.02
Hope agency	.01	.13	.07		
Hope pathway	-.07	.12	-.05		
Optimism	.002	.11	.002		
Gratitude	.21	.07	.19*		
Self-efficacy	.20	.11	.14		
Stress * hope agency	-.25	.48	-.04		
Stress * hope pathway	-.71	.56	-.11		
Stress * optimism	1.09	.49	.19*		
Stress * gratitude	.26	.35	.05		
Stress * self-efficacy	.10	.44	.02		

Note.$p <.05$**$p <.01$***$p <.001$.*Mental health* (N=216): Stress step 1; $R =.57$, $R^2 =.32$, $\Delta R^2 =.32$, F (1,214) = 101.94. Stress step 2 $R =.63$, $R^2 =.40$, $\Delta R^2 = .38$, F (6,208) = 22.96, ($p <.001$). Stress step 3; $R =.65$, $R^2 =.42$, $\Delta R^2 = .39$, F (11,213) = 13.35, ($p <.001$).

The interaction between stress and optimism and mental health (GHQ) was examined. The result indicate that optimism moderated the relation between perceived stress and GHQ (b= .75, SEb=.32, β=.13, $p <.05$). For both groups (high and low optimism) as stress increases, mental health scores decline indicating poorer mental health. Plotting the analysis (see Figure 4. 12) showed that while optimism moderated the relationships between perceived stress and mental health in both groups, the relationship was weaker

for academics who reported higher optimism (R=.45) than for academics who reported lower levels of optimism (R =.58). At lower levels of stress, the high optimism group report poorer mental health than the low optimism group. However, at higher levels of stress, the high optimism group report better mental health than the low optimism group.
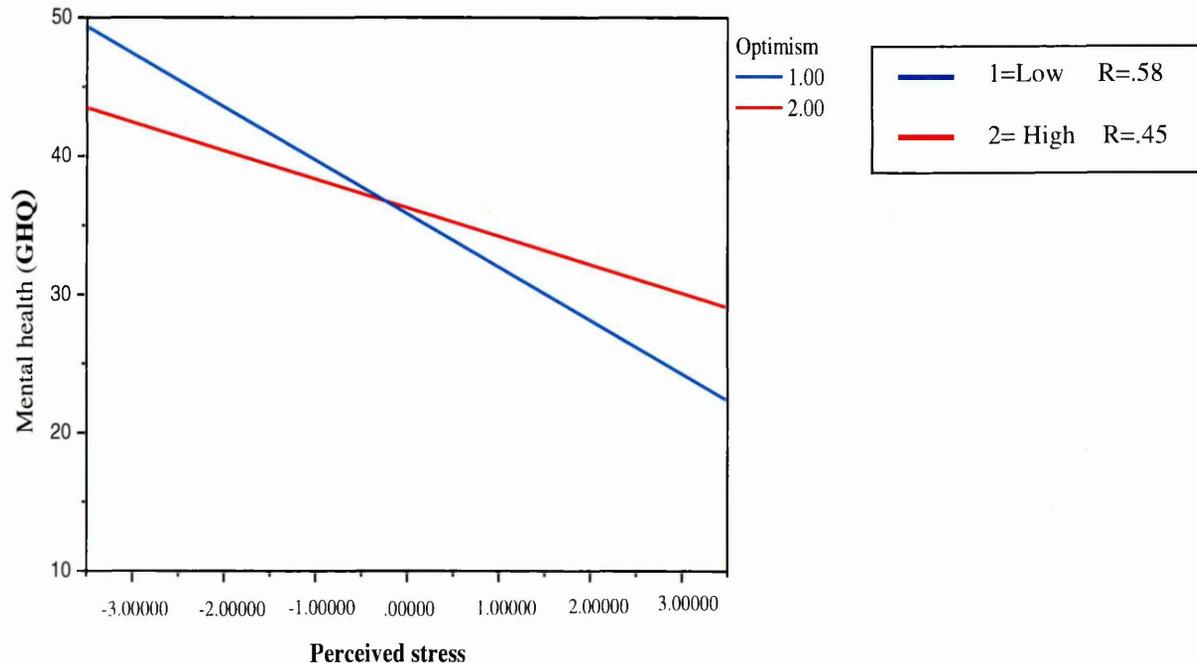
Figure 4.12. Plot of simple slopes for the relation between perceived stress and mental health (GHQ) at greater than and lower than median on optimism among academics.

4.5 Discussion

The current study focused on stress, well-being, and mental health in academic staff and their association with character strengths and the role of gender differences, full-or part-time employment, and seniority of position. The results will be discussed in the order they were analysed.

Demographic variables

Analysis of gender differences showed that there were no significant differences between female and male academics in their level of perceived stress, subjective well-being, and health. Kinman (1998) and Gmelch and Burns (1994) reported that there were no significant differences between gender and the levels of stress among

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academics in early studies (Kinman, 1998; Gmelch & Burns, 1994) although Archibong et al. (2010) found that the level of stress was greater in female academics. This was not the case in this study. Future research could revisit this issue, using the same measures to allow for direct comparisons. It may be that the time of year when academics are surveyed has an influence as work pressures vary significantly across the academic year with student assessment periods and the like.

In terms of coping styles, there was no statistically significant difference between male and female academics, although the mean value indicated that female academics were using more emotion-focused coping and men were using denial coping when they were exposed to stress. It can be suggested that female academics who are using emotion-focused coping in situations where they have little control of the stress are demonstrating adaptive behaviour (Folkman & Lazarus, 1985).

The current research also found there were no statistically significant differences between full-time versus part-time academics in terms of perceived stress. However, Barnes and O'Hara (1999) found that part-time academics were not able to cope with management policies at university, finding this stressful. The present study did not explore which aspects of the job were particularly stressful; it simply assessed overall stress levels so cannot comment on this aspect. Finally, no significant differences were found between junior and senior academics in the levels of perceived stress. These results are supported by previous research. For example, Richard and Krieshok (1989) found no differences between junior and senior employees (Jacobs et al., 2010). However, some studies found that the level of stress is higher in junior academics than in senior staff (e.g., Abousierie, 1996; Gmelch, Wilke, & Lovrich, 1986; Winefield & Jarrett, 2001).

Stress, subjective well-being, and mental health

The hypothesis that stress will have a significant negative relationship with subjective well-being, and mental health (GHQ) was supported (see Figure 4.13). This research found that high stress scores are found to be predictive of lower satisfaction with life, lower positive affect, and poorer mental health (GHQ). High stress scores are shown to be predictive of higher negative affect. The relationship between stress and subjective well-being has been supported by previous research. For example, Kinman (2008) reported that increasing levels of stress are often associated with decreasing levels of

psychological health and well-being among academics in UK universities. Thus among academics greater stress predicts lower symptomatic mental health (GHQ).
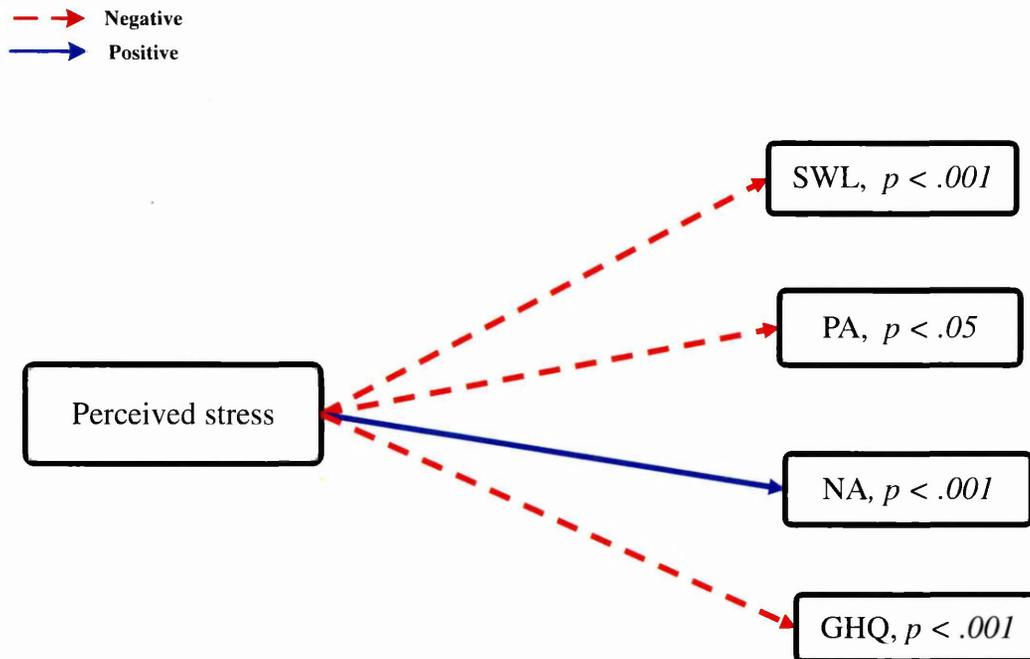
Figure 4.13. The relationship between stress, subjective well-being (SWL), and mental health (GHQ).

Stress, work coping variables, and coping styles

The hypothesis that lower levels of work coping variables (sense of coherence and work locus of control) will predict increased perceived stress at work was partially supported The results showed that sense of coherence has a significant negative relationship with stress (see Figure 4.14). Sense of coherence involves three components: comprehensibility, manageability, and meaningfulness to explain stress and individuals' coping styles (Antonovsky, 1987). The current study used sense of coherence as a work coping variable to predict stress at work. Higher sense of coherence scores were found to be predictive of lower scores on stress. Academics who identified a low level of sense of coherence at work are more stressed. The significance of sense of coherence for stress at work has been supported by previous research. Individuals with high levels of sense of coherence are shown to have lower levels of stress at work (Antonovsky, 1987). Sense of coherence has also been associated with more positive coping with stress at work (Albertsen et al., 2001). Kinman (2008) also found that academics with a greater sense of coherence reported lower levels of stress at work. Consequently, academics with high levels of sense of coherence are likely to cope more positively with

stress at work. Kinman (2008) did not examine the role of work locus of control as a work coping variable in her study. The current study examined the relationship between work locus of control and stress. The results did not support the research hypothesis in that work locus of control had no significant relationship with stress.

─ ─► **Negative**

| SoC, $p < .001$ ┣ ─ ─ ─ ─► Perceived stress |

Figure 4.14. The predictive of lower levels of sense of coherence (SoC) with increased perceived stress.

As hypothesised, problem-focused and emotion-focused coping style predicted lower levels of stress and dysfunctional and denial coping predicted higher levels of perceived stress (see Figure 4.15). In particular, the current research found high problem-focused coping scores to be predictive of lower stress scores. Folkman (1997) also found that problem-focused coping could lead to problems being resolved, thus altering the stressful situations. As a result, academics who use problem-focused coping strategies experienced less stress at work. This was supported in the current study. High dysfunctional coping scores are found to be predictive of high scores on stress. Academics using this coping strategy therefore experienced more stress at work. Dysfunctional coping consisted of self-distraction, self-blame, and substance use, as extracted from the Brief COPE in a factor analysis (Carver et al., 1989).
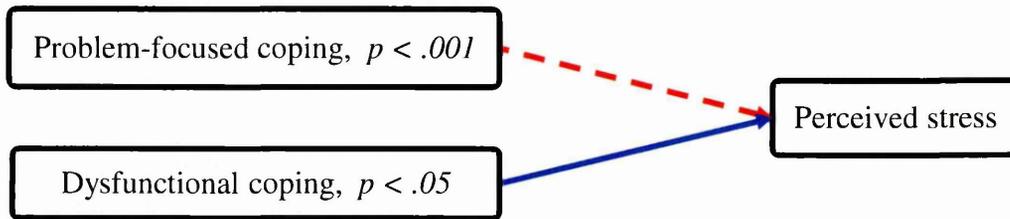
*Figure 4.15.*The relationship between coping styles and perceived stress.

To summarise, in terms of the relationship between coping styles (problem-focused, emotion-focused, dysfunctional, and denial coping) and stress, problem-focused coping had a significant negative relationship with stress and dysfunctional coping had a significant positive relationship with stress.

Character strengths and stress

One aspect of the research reported here was an attempt to investigate whether particular character strengths could make an important contribution to reducing stress at work. The hypothesis was supported here that character strengths (hope agency, hope pathway, optimism, gratitude, and self-efficacy) had negative correlation with perceived stress (see Figure 4.16)
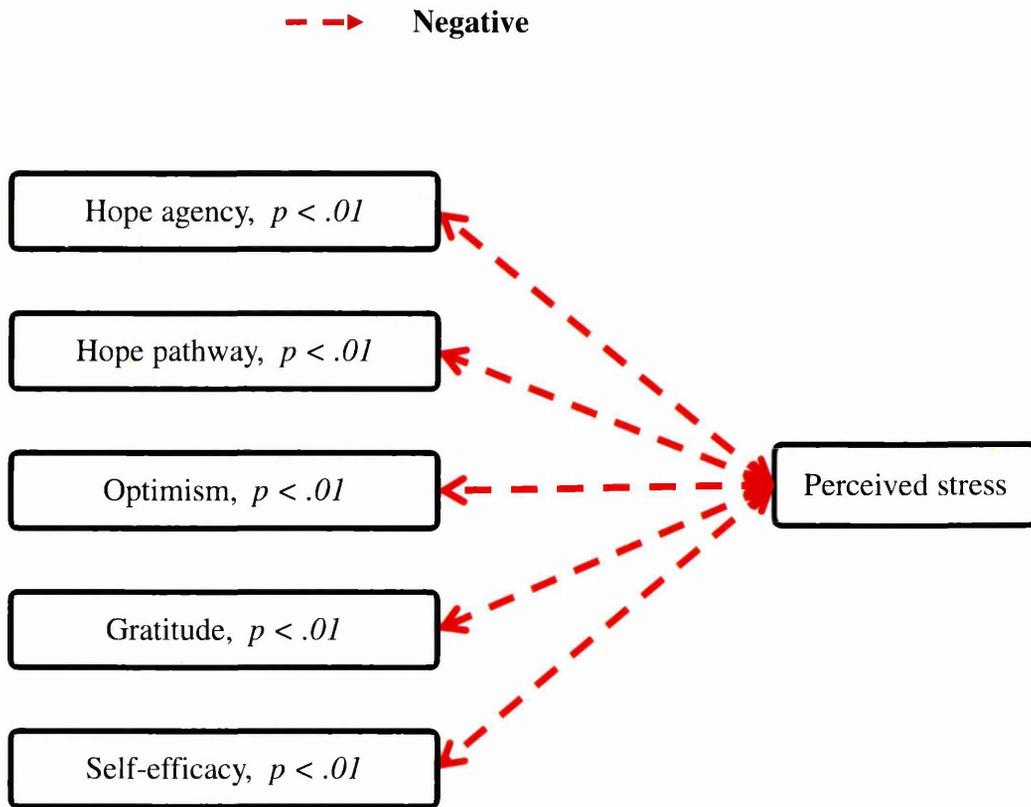
*Figure 4.16.*The negative correlations between character strengths and perceived stress.

It also hypothesised that character strengths will have a positive relationship with SWL, PA, and GHQ, and a negative relationship with NA. The hypothesis was largely supported (see Figure 4.17). The hierarchical regressions demonstrated that the character strengths of gratitude and hope agency significantly predicted subjective well-being. Hope agency positively predicted satisfaction with life and positive affect and negatively predicted negative affect. Hope pathway only negatively predicted satisfaction with life. Optimism positively predicted satisfaction with life and negatively predicted negative affect. Hence, academics with high level of these character strengths are healthier, more satisfied, and experienced less stress at work. The influence of hope agency, hope pathway, optimism, gratitude, and self-efficacy has not been empirically studied in an academic population previously.
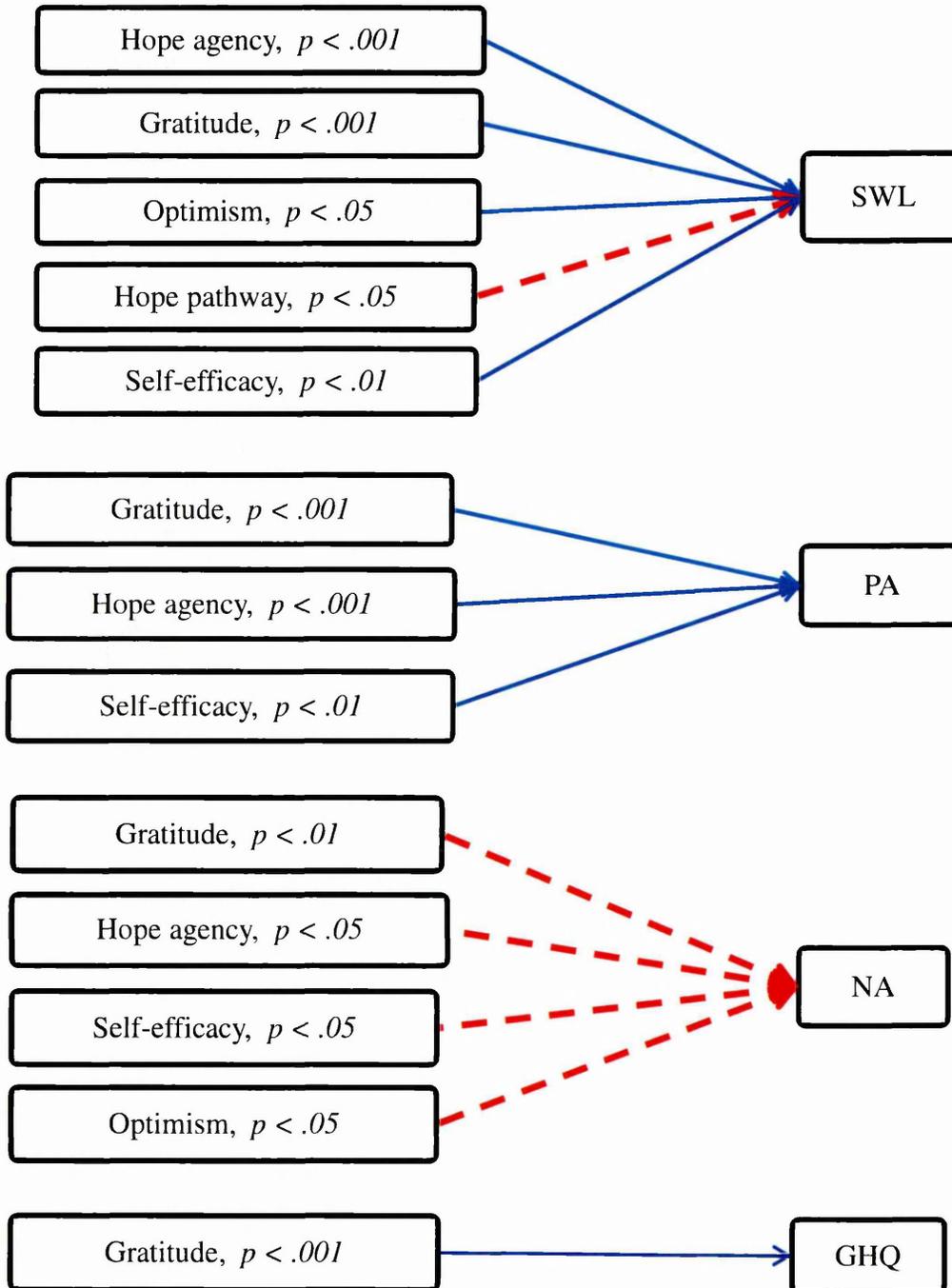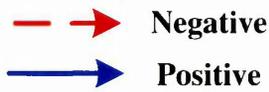
Figure 4.17. Summary of the relationship of the character strength as the unique predictors of well-being (SWL, PA, NA) and mental health (GHQ).

Hope agency and hope pathway

The current study found that high hope agency scores were predictive of greater satisfaction with life, greater positive affect and lower negative affect. It was hypothesised that the interaction between stress and hope agency would affect well-being and mental health. Moderator analysis was conducted in order to explore the hypothesis that hope agency moderated the relationship between stress and SWL. The hypothesis was not supported and moderator analysis showed that hope agency was not a significant moderator of the relationship between stress and satisfaction with life. Hope pathway only negatively predicted greater satisfaction with life. The findings support by previous research that hope was a significant predictor of positive and negative affect among college students (Ciarrochi et al., 2007). Individuals with higher hope showed more positive emotional experience than lower hope individuals (Snyder et al., 2002). Hope agency was not identified as a predictor of mental health (GHQ) in this research, although previous research found that it predicted happiness, well-being, and mental health (Peterson, 2000). Chang (1998) also reported that higher levels of hope agency predicted satisfaction with life in a sample of college students. Apart from mental health, these results were replicated with academic staff in the present study. Hope pathway did not moderate the relationship between stress and subjective well-being and mental health (GHQ).

Optimism

The findings of this study suggest that greater optimism scores are predictive of higher satisfaction with life and lower negative affect. The significance of optimism for satisfaction with life has been supported in previous literature (Wong & Lim, 2009). Diener (2000) found that optimism predicted subjective well-being, which consists of more positive affect, less negative affect, and higher satisfaction with life as in the current study. Therefore, more optimistic academics reported greater satisfaction with life. However, although optimism was positively associated with mental health (GHQ), it was not a unique predictor of mental health at Step 2 of the regression. Moderator analysis, however, indicated that optimism was found to be a significant moderator of the relationship between stress and mental health (see Figure 4.18). Optimism did not moderate the relationship between stress and subjective well-being (SWL, PA, NA). However, optimism moderated the relationships between perceived stress and mental health (GHQ) in both groups (high and low optimism), with a weaker relationship for

academics who reported higher optimism than for academics who reported lower levels of optimism. When stress levels were low, the high optimism group reported poorer mental health than the low optimism group did. However, at higher levels of stress, the high optimism group report better mental health than the lower optimism group. Optimism having a buffering effect on mental health when stress levels are high is similar to the effect reported in the literature on optimism and health as such individuals are more likely to conceptualise stress as time limited so can foreseen an end (Hirsch et al., 2009). However, high levels of optimism associated with poor levels of mental health when stress levels are low are harder to explain. Optimism is an interesting variable where the effect is not always easy to predict because of the concept of unrealistic optimism (Harria & Hahn, 2011). Unrealistic optimism is where for example, individuals may be aware of how particular behaviours such as smoking are linked with causing cancer but somehow they believe that this negative health link does not apply to them so they continue to smoke. Unrealistic optimism has been frequently observed in health condition such as lung cancer, heart disease, stroke, HIV infection, and alcoholism. The relationship between what appear to be helpful levels of optimism and unrealistic optimism is unclear, although it is thought to be applied more in relation to life events that are more controllable and is less likely to be present in individuals that are suffering from physical or mental health problems (Helweg-Larsen & Shepperd, 2001). The findings here in relation to optimism and mental health when stress levels are low require further study.
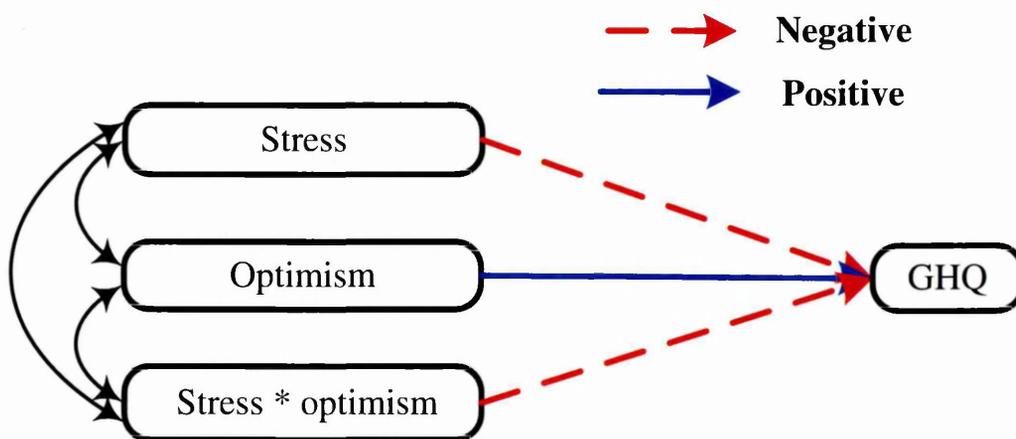
Figure 4.18. The interactions of stress, optimism, stress * optimism in predicting mental health (GHQ).

Gratitude

The study also focused on gratitude to explore its relationship with stress at work and its role in increasing well-being and mental health among academics. High gratitude scores are found to be predictive of greater satisfaction with life, positive affect, and better mental health, and lower negative affect. Froh et al. (2009) supported the current study's findings that gratitude was a predictor of well-being, although their research was among students. In addition, they found a positive relationship between the character strengths of hope and gratitude, positive affect, and satisfaction with life, as the current study found. Gratitude was a significant predictor of health and well-being among academics in the current study. The significance of gratitude for subjective well-being (SWL, PA, and NA) has been supported in another study but again it was with students (Watkins et al., 2003). Gratitude did not moderate the relationship between stress and subjective well-being and mental health (GHQ).

Self-efficacy

The results revealed that self-efficacy played a significant role in decreasing the level of perceived stress and increasing well-being among academics. Similarly, Bandura (1994) noted that high levels of personal self-efficacy reduced stress and increased well-being. Great self-efficacy scores were predictive of subjective well-being. The results clearly suggest that academics with high levels of self-efficacy experience less stress and higher levels of well-being. Previous research supported that higher self-efficacy predicted higher well-being at work environment (Scholz et al., 2002), as found in this study. It suggests that academics with higher levels of self-efficacy are less stressed and experienced better well-being than those with lower levels of self-efficacy, as Bandura (1994) suggests. However self-efficacy was not unique predictor of mental health (GHQ). Self-efficacy also did not moderate the relationship between stress and subjective well-being and mental health (GHQ).

Implications

The research identified that academics with higher levels of the specific character strengths of gratitude, hope agency, self-efficacy, and optimism report lower levels of stress at work. This is associated with increased well-being and mental health. It is suggested that by encouraging academics to identify their character strengths and working to develop specific character strengths they can improve their well-being and

mental health and reduce their levels of perceived stress. Peterson and Park (2006) believed that character strengths can and should be developed by institutions as they can lead employees to be more productive and profitable.

Limitations

There are some limitations in the current study. First, the results of the study apply to university academic staff therefore they may not be generalised to general staff in universities, or other employees. Secondly, although the sample was large enough for the study, all the participants were recruited from one university so that the findings may not generalise to academic staff in other universities. The third limitation may lie in the recruitment strategy. The current study used the staff electronic newsletter and staff chose to complete the questionnaire after reading an advert for it. Using the Internet to recruit participants has been criticised because participants need to have access to a computer and ability to use it (Park et al., 2004). However, this is not considered a limitation in the current study as all academics have access to computers and the Internet. The Internet recruiting was less time-consuming, allowing recruitment of a large sample of academics than would perhaps have been possible perhaps by traditional paper-and pencil methods. This is supported by other researchers (Park et al., 2004). The other limitation of the current study was due to the use of the Brief COPE scale. The scale was chosen as it is the best available measure that is used frequently in the literature. However, there are issues about the number of factors it represents. Here the Principal Confirmatory Analysis found a four factor solutions while Parallel Analysis confirmed three factors. The four factor solution was chosen to allow comparisons with the research literature.

Conclusion

The results of this study found that stress has a negative relationship with satisfaction with life, positive affect, and mental health and a positive relationship with negative affect. The higher levels of the character strengths of gratitude predicted well-being and mental health among academic staff. Hope agency predicted satisfaction with life and the affective aspect of subjective well-being (positive and negative affect). Hope pathway only predicted satisfaction with life. Optimism positively predicted satisfaction with life and negatively predicted negative affect. Optimism also was a significant moderator in the relationship between stress and mental health (GHQ). Optimism moderated the relationship between stress and mental health. However, in terms of

character strengths gratitude, hope agency, self-efficacy and optimism are identified as the factors which explain why some academics cope better than others with stress at work and experienced higher levels of well-being.

Sense of coherence is identified as a significant work coping variable among academics which can predict stress at work. Academics with high levels of sense of coherence therefore experienced less stress. Finally, problem-focused coping is predictive of experiencing less stress at work. Dysfunctional coping is identified as a positive predictor of stress at work, showing that academics who using this coping style are more stressed. Emotion-focused coping and denial coping were not significant predictors of stress among academics in this research.

The results based on demographic information in terms of gender differences found no significant differences between male and female academics in their levels of perceived stress, subjective well-being, and symptomatic mental health. Full-time academics did not experience significantly more stress compared with part-time academics. Finally, this research found no significant differences between junior and senior academics with respect to stress, subjective well-being, and symptomatic mental health. It can therefore be concluded that identifying and developing academics character strengths could be one way to help them cope with stress at work and increase their well-being and mental health.

Chapter 5-Study 2: Stress and coping

5.1 Introduction

During the past three decades, changes in the higher education (HE) sector have been an important topic of discussion in the press, the academic literature, and government reports especially in Australia (Winefield et al., 2002) and the UK (Kinman & Jones, 2003).

There is debate among stress researchers that stress is the consequence of individuals' perception of stressors when they think that they do not have sufficient ability to cope with the stressful situation based on their experiences in the past (Lazarus & Smith, 1988). As stress is identified as a multidimensional concept in the stress literature, some researchers suggest that there are different types of stress (Lazarus, 1990), therefore the reaction to stressors is different from one person to the next. As a result, the way that people choose to cope with stress depends on their appraisal or interpretation of a stressful situation. Hence, by using qualitative methods, it is possible to discover individuals' experiences of stress and their evaluations of stressors in their daily lives. It may also help to figure out how they cope with stress at work.

It is noticeable from the reviews of occupational stress that most of the researchers in this area have used quantitative methods to identify the sources of job stress and coping with it. There are some limited studies using qualitative methods to investigate stress, coping strategies, and other aspects of stress at work (Mazzola, Schonfeld, & Spector, 2011). Quantitative methods have made a significant contribution to the stress literature, but have some limitations. For example, quantitative researchers have produced reliable psychometric scales to evaluate levels of stress. However, these scales tend to ignore the importance of identifying the stressors from the individuals' perspectives (Mazzola et al., 2011). Qualitative methods are able to add more in-depth knowledge to quantitative findings by investigating more precisely how individuals experience and interpret stressful situations. Qualitative research plays an important role in examining coping with stress. It also can provide additional understanding to that extracted by using structured instruments in the quantitative tradition (Mazzola et al., 2011). The interview, as the commonest tool in qualitative research can provide an opportunity to explore issues that are perhaps difficult to conceptualise and measure using quantitative methods (Mann & Stewart, 2000).

By examining the positive aspects of an academic's role in a qualitative study, Bellamy, Morley, and Watty (2003) identified themes of flexibility and autonomy as key factors in the academics' experiences. Similarly, another qualitative study revealed that freedom and autonomy at work were valued aspects of being an academic (Houston et al., 2006). On the other hand, heavy workloads and job insecurity were the main stressors identified in the academic environment in some qualitative studies (Mazzola et al., 2011; McInnes, 2000). McInnes (2000) emphasised the necessity of examining how workload issues can lead to increased stress among university staff.

5.2 Rationale for the current study

This lack of qualitative research focusing on how academics cope with work stress and investigating the positive as well as the negative aspects of academics' work provided a strong rationale for conducting the current study. The quantitative study in Chapter 4 has already provided summary data from a large group on stress levels amongst academic staff plus measures of character strengths and their influence on stress and well-being. This has provided quantitative data on the characteristics of individuals that cope positively with work stress. However, the quantitative methodology employed could not provide a detailed picture of the work stress experienced by academics and how that is perceived. The current study considered the following research question: What do academic staff perceive to be the positive and negative features of academic working life, and how do they cope with these? Hence, the current study aims by using qualitative methods, to:

1) collect more in-depth information on work stressors that are experienced by academics;
2) identify the ways that academics cope with work;
3) examine the positive and negative aspects of the job as evaluated from the academics' perspectives.

By doing so, this study addresses a gap in the literature and aims to produce a balanced picture of how academics perceive their role at a time of great change in the higher education sector.

It is notable from the research literature that academic researchers traditionally concentrate on exploring the work of other occupational groups so this study will break the trend by adding to the relatively sparse literature on the academic population. In

addition, online interviewing is quite a new methodology that has provided a very confidential anonymous medium, allowing participants to freely express their feelings without any of the social constraints that might be present in a face-to-face situation with a research student. It is also cost-effective in terms of time as interviews do not have to be transcribed. However, no methodology is perfect and the downside is that the interviews are necessarily more structured, although space can be provided for additional comments.

As mentioned in Chapter 4, the previous cross-sectional study identified that the character strengths of gratitude, self-efficacy, and hope agency were important predictors of stress and well-being amongst academics. It also identified that sense of coherence was a significant work coping variable predicting stress at work. In terms of coping strategies, problem-focused coping was predictive of experiencing less stress at work. Dysfunctional coping was identified as a positive predictor of stress at work (see Chapter 4). The current study will focus more on the academics' job environment to explore how they think or feel about the positive and negative aspects of their role in terms of teaching, research/scholarship, and administration which may affect their job satisfaction or dissatisfaction. The current study will also explore how academics cope with stress at work.

Thematic analysis will be used to analyse the findings as it provides a very flexible approach to organising and interpreting fairly structured interview materials (Braun & Clarke, 2006). Thematic analysis involves a search for themes that emerge as being important to the description of the phenomenon. It is an appropriate tool to use with the online structured interviews in the current study as the data set is fairly uncomplicated (Braun & Clarke, 2006). The process involves the identification of themes through careful reading and re-reading of the data. The aim of the online interview study is to provide further information on how academics cope positively with stress at work, as well as to understand in more detail the stressful aspects of the job, the valued as well as the more challenging components, and to try to understand how academics perceive their role.

5.3 Specifying sample size in the current study

There are no clear guidelines for the number of interviews that are required to do qualitative research. For example, Bernard (2000) suggested thirty-six interviewees are sufficient for ethnographic studies, while Bertaux (1981) recommended that the smallest

acceptable sample size for qualitative research is fifteen (Howitt, 2010). Morse (1994) presented more detailed guidelines that suggested for phenomenological studies at least six respondents are required; for ethnographical studies, grounded theory and ethno sciences studies anywhere up to thirty-five participants but no numbers were given for thematic analysis (Howitt, 2010). The number of interviews collected here seemed to represent an adequate sample size as it allowed analysis to saturation (see Methods section).

5.4 Methods

5.4.1 Participants

Thirty one academic staff from a UK university in the North of England participated in this study 18 female, 12 male, and one stated their gender identity as mixed. In terms of role at work, sixteen of the interviewees were senior lecturers, two were professors, four were principal lecturers, two were associate lecturers, six were lecturers, and one introduced herself as a subject group leader. The ranges of work experience was between 2 and 36 years ($M = 12$, $SD = 9.54$).

5.4.2 Measures

Demographic information

Details on gender identify, job title, and years of job experience were collected as demographic information (see Appendix 4.1).

Online interview schedule

The interview questions concentrated on academics' experience of their roles at the university. The roles were related to teaching, research/scholarship, and administration. An online interview schedule was constructed. The interview guide included three structured demographically-oriented questions, twelve open-ended questions about the nature of their work, coping and stressors, one question that asked the interviewees to identify three changes that would improve their working life if they could be instituted, and a final question asking for any other additional comments to make sure the interview completely covered academics' experiences. This last question was included to help to compensate for the structured nature of the other questions (see Appendix 4.2).

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5.4.3 Procedures and ethics

A pilot study was conducted amongst a sample of PhD students who do teaching as part time Associate Lecturers (AL) at the university (N=4). This pilot study was useful to identify and correct any problems with the interview schedule. A few minor changes occurred after the pilot study. The findings of the pilot study were not interpreted. Permission to approach academic staff to seek volunteers to participate in the research was given by the university's Employee Well-being Committee, the University Secretary, the Health and Safety Manager and the relevant faculty PVC Executive Deans (see Appendix 10). A version of online survey software developed at the University was used to deliver the interview questions, as it allowed for anonymous collection of data. The advert for this study provided the online link to the survey. The researcher and her supervisor contact details were also included (see Appendix 3.1 for advert). Staff who were interested could link to the online questionnaire/interview. No identifying details of members of staff were collected. It was made clear to participants that by clicking the submit button, they were providing informed consent and permission for their data to be used anonymously by the researcher. The online system used is thus totally anonymous.

At the end of the survey a debriefing section provided details of university sources of help and support if staff felt stressed. The contact details of the researcher and her supervisor were provided in the email for any participants who required further information (see Appendix 3.2). The Internet-based survey link was live for three months, during which time adequate interviews were collected.

5.4.4 Procedures of analysing qualitative data

Thematic analysis was conducted to interpret the data that emerged from the interview transcripts (Braun & Clarke, 2006). Data analyses were designed based on Braun and Clarke's (2006) six phases of analysis (data familiarisation, initial coding generation, search for themes based on initial coding, review of themes, theme definition and labelling, and report writing) to find ultimate themes as mentioned in Chapter 3. Two approaches to coding are recommended in the qualitative literature: manually or using a software programme (Denzin & Lincoln, 2005). The computer software is used simply to organise and structure the data and interpretation is still required by the researcher offline. The current study opted for manual coding as the data was already fairly structured and was not too extensive for manual analysis.

Much time was spent reading and re-reading all the transcripts to familiarise the researcher with the data set, as is a key to thematic analysis. Codes were identified from each interview sequentially, although at some stages the researcher modified the analysis based on new experience, so earlier codes were slightly adjusted. Coding continued throughout the entire analysis. Moving backwards and forwards across the whole data set throughout the phases was important. It should be noted here that some trial and error happened to decide on the ultimate themes. As identification of themes was data-driven not theory-driven, the current study concentrated more on specific questions for coding through focusing on the content of the entire data set; also the selected theme was something important related to the research question (Braun & Clarke, 2006). To check the reliability of the thematic coding another psychologist read through the transcription and identified largely the same coding as the researcher. There was some discussion about how terms were labelled and a consensus was reached. The high level of agreement was unsurprising as the interviews were largely structured guided by the same question.

5.5 Results

Thematic analysis of the data revealed six themes that emerged from the academics' experiences and ideas relevant to their work environment. These were: (1) features of the academic job, (2) coping with stress at work, (3) positive and negative feelings around research/scholarship, (4) administrative loads, (5) task preferences in the academic role, (6) and thoughts around leaving the academic environment (see Table 5.1).

Table 5. 1 Principal themes and sub-themes.

Theme 1
Features of the academic jobs

Sub-theme 1-Relationships between lecturers and students
Sub-theme 2-Colleagues and students
Sub-theme 3-Flexibility of the academic role
Sub-theme 4-Increasing stress levels
Sub-theme 5-Suggested changes to reduce stress and improve the academic role

Theme 2
Coping with stress at work

Sub-theme 1-Positive coping techniques to deal with stress
Sub-theme 2-Negative coping strategies

Theme 3
Positive and negative feelings around research/scholarship

Sub-theme 1-Identity as an academic
Sub-theme 2-Rewarding aspects of scholarship
Sub-theme 3-Support for research/scholarship
Sub-theme 4-Features of job dissatisfaction
Sub-theme 5-Time pressures
Sub-theme 6-Funding

Theme 4
Administrative loads

Sub-theme 1-Burdens of administration
Sub-theme 2-Increasing administration
Sub-theme 3-Seeing positives in negatives

Theme 5
Task preferences in the academic role

Sub-theme 1-Teaching priority
Sub-theme 2-Teaching and research
Sub-theme 3-Balance of work roles

Theme 6
Thoughts around leaving the academic environment

Sub-theme 1-Job satisfaction
Sub-theme 2-Job dissatisfaction

Theme 1: Features of academics' job

This theme explored how academics felt about their role at university. Most academics represented the positive aspects of their role in terms of the relationships between lectures and students, interaction with colleagues, and flexibility and autonomy related to their job. They did also identify some challenges in the jobs that make them stressed and cause disappointment.

Sub-theme 1-Relationships between lecturers and students.

The specific positive elements of the academic job, especially in terms of teaching, were in many instances related to the relationships between lecturers and their students; more specifically how they had a longitudinal relationship with their students and were able to see changes in them and progression. For many academics, the rewarding element of teaching came from the way they had some involvement in how these students develop. This is evident in the following excerpt: "Seeing students developed, begin to understand complex ideas and even to begin to think like psychologists." (Participant 1, lines 10-11)

This illustrates that developing their students' abilities to comprehend complex ideas is an important issue for the academics, especially those who are involved with PhD students. As a result of developing their cognitive skills, students become more critical and their work becomes more structured. Interviewees described their positive feelings towards intelligent and motivated students that are interested in learning more and in a different way. They are eager to help students to understand the content and aim of lectures and seminars and get satisfaction when this is achieved, with one respondent enjoying, "Finding out more about my students, and that moment when the penny drops." (Participant 9, lines 8-9)

When students display positive attitudes it makes academics more satisfied. It was acknowledged that the more enjoyable or rewarding part of teaching for academics was the aspect of their role that involves helping students to develop themselves, successfully to find a job after graduation, and become experts in their area: "With research students they go from students to research colleagues and that is great." (Participant 1, lines 12-13)

Sub-theme 2-Colleagues and students.

There was a strong consensus among interviewees that their relationships with colleagues are the most cherished part of their job. From the interviewees' perspective, colleagues and students were identified as two positive fundamental components of academic life at the university. The element of sharing experiences and support gained from colleagues was identified as being valued: "Talking to colleagues, having away days, discussing and sharing experience about teaching and research." (Participant 3, line 17). One lecturer summarised what she valued as: "Relationships with colleagues/discussions and support." (Participant 2, line 15). Another simply summarised what was valued thus: "my colleagues." (Participant 10, line 15)

A female professor with very many years' experience stated what she valued about her colleagues and students as follows:

> Colleagues and students. I have some wonderful colleagues that I enjoy working and socialising with. Similarly it is a real privilege to see students develop and grow when you are working with them. I have met some really lovely people over the years through work. I also enjoy the opportunities I have had to travel and work in other countries through work and to do research with colleagues overseas. (Participant 1, lines 32-35)

Two interviewees identified being respected by colleagues and students as important aspects of their relationships at work: "Relationships with colleagues and students. Being respected." (Participant 16, line 14). "Working with motivated and committed younger people who appreciate the help and support you give them." (Participant 22, lines 8-9)

Again in these excerpts the focus was on valuing students who were motivated and wanted to learn at university. A female professor commented that she valued the aspect of educating future generations and passing on what she had learnt: "Having the ability to pass on knowledge and skills to future generations through teaching, research and scholarship." (Participant 1, lines 51-52)

Focusing on the needs of students and what they wanted and valued in their education was identified as an important issue from academics' viewpoint. However, a number of factors were seen to sometimes work together to undermine the relationship between what it was possible to deliver in terms of teaching and what the students wanted.

One interviewee pointed out the importance of the connection between lecturer and students but underlined the threat to it in terms of future resourcing of teaching and funding cuts: "Personal tutoring is extremely important to students. We need this resourcing, not chopping." (Participant14, lines 25-26). Another highlighted that a rewarding element of the role involved helping the development of younger or less experienced colleagues as well as students: "Being able to contribute to the professional and personal development of students and colleagues alike." (Participant 28, line 20). A third, meanwhile simply stated: "Engaging with students." (Participant 24, line 26)

Sub-theme 3-Flexibility of the academic role.

Interviewees found the inherent element of flexibility to be a beneficial part of the academics' work which contributed in a variety of ways to the positive feelings associated with being an academic. For example: "Flexibility about working hours." (Participant 11, line 19). Another interviewee highlighted that they valued the situational flexibility associated with the job: "the flexibility to work from home (subjective timetabling)." (Participant 17, line 26)

There are a number of international employees in the university with their extended family living abroad, for whom flexibility at work in terms of holidays provides a good opportunity to visit them in the summer, as one of the interviewees commented: "the ability to have a lengthy summer holiday as I have family abroad and this allows me to see them." (Participant 12, line 14)

Sub-theme 4-Increasing stress levels.

Most academics felt that in spite of the positive aspects of being an academic it is getting to be harder and more challenging as student numbers continue to increase and resources are reduced. One interviewee expressed negative feelings about the teaching element of the job and cuts: "Bad in terms of increasing class sizes and chopping of tutorial time." (Participant 14, lines 5-6)

For another large class sizes were a big issue: "MOST CHALLENGING -Large class sizes-difficult to get that informality/interaction with large classes (e.g. 50+)." (Participant18, lines 9-10)

(The capital letters were used in the interview to stress the importance of the issue for that participant).

As a result of the increasing student numbers, accompanied by reductions in class contact times, academics reported feeling under time pressure: "I feel very stretched; too much teaching and marking; too many students; not enough time to prepare or to mark adequately and give pastoral support." (Participant 15, lines 5-6)

From the academics' viewpoints, increasing the number of students especially at the undergraduate level, was stressful in that they believed it led to poorer interaction between university teachers and students, which they were unhappy about and worried about. Indeed, it was clear that, contact with students is regarded as an important element of an academic's job. Obviously, decreasing the sizes of classes or increasing tutorial or personal support would improve the current situation. As one lecturer put it: "Teaching undergraduate level is less consistently rewarding (this depends on the motivation of the group)." (Participant 11, lines 5-6)

The comments around marking showed academics are under pressure related to marking and moderation deadlines. Marking was the least enjoyable duty for them. Marking and moderation deadlines were reported as continually getting shorter and workload around marking was stressful: "Marking to deadlines can be quite challenging." (Participant 26, lines 5-6)

The poor quality of management and administration was identified as something that contributed to the increased stress levels of academics. One of the interviewees believed that the university should employ more highly educated managers and administrators. Academics acknowledged that the quality of the academic job is suffering because of some non-professional managers. As one interviewee lay it: "Get decent managers who have some academic qualifications beyond first degree level." (Participant 24, lines 22-23)

They also mentioned that managing time, with the increases in academics' workload is becoming critical and hard, "too much to do and not enough hours in the day to do it all." (Participant 2, line 15)

There were real concerns that the nature of higher education was changing in negative ways due to external forces and the impact on standards at the university. One interviewee summarised the effect of many of these factors on stress at work:

> Too many to list them all here! The commercialisation of HE, which leads to a
> very unhealthy attitude of 'buying a degree' instead of buying education amongst

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an increasing proportion of our students. Incompetent line managers! The standard of HE in the UK and especially at the university. It is alarming to see how exchange students only staying at the university for1 or two semesters constantly embarrass our students with results far above our students. The absence of research facilities/possibilities and the degradation of the university to a local college over the last 15 years, and many more.... (Participant 20, lines 35-41)

A male senior lecturer with 17 years' experience at the university was very vocal in his condemnation of management: "Management at the university are a bunch of Stalinist idiots who know x-all about Higher Education and just get in the way." (Participant 27, line 14)

Some of the interviewees were worried about the government's attitude to their pension scheme. Academics thought that proposed cuts in their future pension were extremely problematic in terms of their future quality of life. They also felt that in the current financial climate, with all its problems, things could only get worse at the university. One interviewee raises the question: "What will the Government do to the Teachers' Pension Scheme?" (Participant 8, line 18). A second expressed concern about the government's attitude to education: "The coalition government's attitude to HE." (Participant 19, line 15). Meanwhile, a male senior lecturer with 23 years' job experience indicated that his only worry was: "Only the general threats to HE of the present government!" (Participant 21, line 20)

Job security was identified as an important issue for academics. The effects of job insecurity made some interviewees stress and worry about their jobs in the future: "Being an AL is very insecure. We are only notified of available work in August, which makes forward planning impossible." (Participant 13, lines 22-23)

Job security was also an issue for academics working in research centres; one interviewee expressed a need for: "More clarity and security in our centre's position." (Participant 29, line 27)

Some of the interviewees were not happy with their office climate in terms of location, light, and some initial facilities which make them stressed. They also were not satisfied with some equipment that they needed for work. One interviewee summarised it as follows:

An office with windows to the outside world (mine looks inwards, so I try, whenever feasible, to work from other places; a Do Not Disturb sign on my forehead for colleagues with whom I share an office to take notice of (and similar signs for their foreheads); more students who recognise when you're doing your best for them. (Participant 9, lines 25-28)

Another identified similar environmental concerns and again included management as a contributor to the stress experienced: "The lighting in the office, the photocopiers and the management culture-especially in the upper echelons of the institution." (Participant 19, lines 16-17)

Work-loads and how teaching slots are planned and allocated were issues for many staff. It was felt that if some of these could be changed it would benefit staff and students workloads, the university should also allocate more research time and accurate administration time rather than focus purely on teaching. As one lecture put it: "1) 9am teaching slots (I am not averse to them but the students hate them and don't attend) 2) more time allocated to research 3) time given to mark and give feedback (too intense)." (Participant 10, lines 17-18)

Sub-theme 5-Suggested changes to reduce stress and improve the academic role.

Many respondents while sharing their concerns about the increasing levels of stressors in higher education spontaneously came up with solutions to the issues. They could identify the current problems and they were keen to present their solutions. For example, one interviewee, while sharing the same concerns about time pressures and the balance of time between teaching, research, and administration, had wider concerns about the higher education sector and elements of current student recruitment and how he would address them: "I would like to see more capable, engaged students entering courses. I would scrap the coming changes to HE. I would ensure a better split between teaching/research time through work loading timetabling etc." (Participant 12, lines 18-20)

Respondents appeared to find it easy to summarise the factors related to job stress. The uncertainty about student numbers year on year was a concern, as was poor communication, and again there was a wish for more time to pursue scholarship and research. Another interviewee expressed the solutions as follows: "More predictability

about student numbers. Better communication between faculties. More opportunities for research and scholarly activities." (Participant 16, lines 19-20)

A second interviewee produced a clear list of what was required to address the current position:

> 1. Have more incentives/opportunities for promotion (e.g. to Principal lectures) for research and writing. 2. Have a work planning system which *accurately* represents and reflects actual time taken on teaching modules etc. 3. Strengthen and develop areas that are doing well-not least by appointing senior individual(s) who will harness and drive a research culture where this is lacking. (Participant 18, lines 34-38)

There was a clear wish for academics to contribute to providing solutions and a sense that they are aware of what these solutions needed to be: "More influence on the educational environment and standards More research opportunities and facilities leading to better qualified staff. More discretion in academic work, which is directly linked to more competent line management." (Participant 20, lines 41-43)

Interviewees felt that addressing the problems in the higher education system was an important factor and would decrease the levels of stress among academics. A female senior lecturer with 36 years' experience expressed her assessment of HE as follows,

> There are real problems in the HE sector with privatisation, mercerisation and pressure on resources and academic standards. We need to resist the modification of education and defend education as valuable in its own right. (Participant 8, lines 23-25)

Not all of these solutions focused on external factors. Academics were keen to apply their knowledge to advising the university on ways of addressing stress levels within the organisation. As one academic said: "The University seriously needs to consider why in some departments/groups ill health and sudden drop-out figures (usually due to stress related symptoms) are significantly higher than in others!" (Participant 20, lines 46-48)

Theme 2: Coping with stress at work

Academics chose different ways to deal with stress at work. Most interviewees coped positively with stress at work. They found identifying some positive aspects of the job such as relationships with colleagues provided a useful support in coping with stress.

Autonomy associated with the job was also regarded as making a positive contribution to coping. Furthermore, some staff used a variety of simple techniques to help them cope with stress at work.

Sub-theme1-Positive coping techniques to deal with stress.

Support from colleagues was the commonest strategy identified by academics to cope with difficulties at work. They felt that having a good relationship with colleagues was helpful in decreasing the negative aspects of stress at work. One interviewee was very explicit: "Seeking support from colleagues" (Participant 11, line 9). Another identified the benefits of supportive communication: "Discuss with colleague." (Participant 6, line 8). For some it was more the provision of informal support, which she described as: "Peer support (a good gossip)." (Participant 10, line 9). For others managers as well as colleagues were part of the support network, "Talking to colleague and manager" (Participant 16, line 7). Using managers to provide support was much rarer than the use of colleagues. "Talking to colleague." (Participant 25, line 7)

From the interviewees' reports, it seems that the compulsory working hours are not enough to cover all aspects of the job. Almost all respondents reported working harder and longer especially in the evenings and weekends. For some this was recognised as a positive coping strategy. One interviewee described her coping strategy as follows: " I try to prioritise what I have to do so that really urgent stuff gets done first. Often I do more in the evenings or weekends just till I catch up." (Participant 1, lines 17-18). A second reported the satisfaction that doing the extra work gave in terms of stress reduction saying: "I feel relieved as I have caught up." (Participant 16, line 9)

Feeling a compulsion to work additional hours to reduce work stress is not a constructive solution as it must inevitably impact negatively on the work-life balance; although it must be noted that for some interviewees the inverse was true, with working in the evenings and at weekends not regarded as a stressor. Further, some academics felt that, in spite of pressure on time, by prioritising their work they could manage to finish it, and then they had feelings of happiness and satisfaction: "I compartmentalise and concentrate on doing one job at time." (Participant 8, line 9). Another interviewee said: "Working harder, longer hours." (Participant 18, line 16)

One principal lecturer gave a different impression of the academic role. This interviewee mentioned that academics are self-determining in terms of managing most

parts of their work. He suggested that this was a coping strategy. He went on to explain that in many cases they are free to decide what they do without consulting with a line manager or a boss as long as the work gets done. This can provide a positive environment for them to work in and a peaceful climate with the less pressures: "Don't take any of it too seriously and remind yourself of the autonomy and creativity that exists still in working in HE." (Participant 22, lines 8-9)

This was echoed by another urging that what was important was: "Personal autonomy of professionalism." (Participant 5, line 13)

These types of positive coping responses were not rare with one colleague saying what helped her to cope was: "My colleagues, the autonomy of the job, the creative spaces that you can build your own teaching profile in." (Participant 18, line 26)

Some interviewees identified simple ways to release stress in their daily lives as a coping strategy. It helps them to decrease the negative aspects of stress. For one interviewee it was, "I count to 10/ leave the room." (Participant 19, line 7). For another holiday allocation was used creatively to recuperate: "Short breaks are very important." (Participant 3, line 8)

Sub-theme 2-Negative coping strategies.

While academics mainly used positive coping strategies, some of them did choose other more negative strategies to cope with stress at work. These negative coping strategies may temporarily decrease stress but the consequences of them may cause more damage in the long term especially to their health. One interviewee stated his coping strategy as follows: "clenching teeth, sleep deprivation and longing for the end of term." (Participant 20, line 12). A second was internalising her ability not to fit everything into her working hours and getting stressed. She described it as follows: "I have a tendency to blame myself (perhaps unfairly) for not keeping on top of things, which results in me working harder/longer hours." (Participant 18, lines 12-13). For others alcohol provided a short -term coping strategy. As one interviewee said: "Not really, - a glass or two of wine at home in the evening?" (Participant 21, line 8)

It was interesting to note that the last interviewee's quote ended with a question mark. This perhaps reflects their unease about drinking alcohol as a coping strategy given the health implications of this.

It became apparent that a few interviewees did not have a specific strategy to cope with stress at work. Apparently they accepted the stressful situation and did not have adequate confidence to change anything to help them cope better. This is evident from the excerpts below where they were asked about their strategy for dealing with stress. One respondent, when asked if they had a stress-coping strategy, said: "Not really, just get stressed." (Participant 12, line 8), while another simply responded: "No, I wish I did." (Participant 15, line 8)

Others were seeking professional help to deal with the stress. One interviewee reported her coping strategy: "Get prescription medication." (Participant 17, line 10)

These comments suggest a passive acceptance of stress and a feeling of helplessness in dealing with it, much like Seligman's learned helplessness. This compares with other academics who had coping strategies and some who even felt that the autonomy inherent in the job allowed them some control over their working lives and the associated stress.

Theme 3: Positive and negative feelings around research/scholarship

Meanwhile, many interviewees felt that the academic role has now been conceptualised as being more about teaching than scholarship or research. For many academics the research/scholarship component was an important aspect of their job. Many interviewees had ambitions to do research because it gave them a feeling of job satisfaction. Six sub-themes were identified here.

Sub-theme 1-Identity as an academic.

From the perception of many interviewees, research was regarded as a fundamental aspect of the academic role. For some academics, doing research epitomises their identity as an academic. This is evident in the following excerpt:

> The research and writing is a central part of my identity as an academic. To contribute actively to knowledge (rather than regurgitate other people's ideas) is something that inspires me. At the moment research/scholarly activity is an area which should be supported and encouraged far more than it is at the moment. (Participant 18, lines 15-17)

Others were a little despairing when writing about how they valued research with one saying: "This is what I enjoy about the job but I feel I have increasingly little

time for research." (Participant 12, line 9). It was clear that academics were trying to plan their time to keep some commitment to research, as evidenced by the following interviewee: "It is very important to me, I try to concentrate when I can and mostly during summer, when teaching is finished." (Participant 3, lines 9-10)

Sub-theme 2-Rewarding aspects of scholarship.

The most rewarding part of research for academics is when their paper is accepted for a conference or for publication in a journal. It was also rewarding for them to see their book published and go to press. It makes them very happy and provides a high level of satisfaction, as one reported: "This is the most important aspect of the job-the most rewarding. I live for this." (Participant 15, line 8)

Sub-theme 3-Support for research/scholarship.

Research and scholarship were identified as key components of the academic job. Interviewees felt that since the university focused more on teaching rather than research and scholarship, this part of the job was suffering. Academics recognised a need to recover and provide more support for these elements. A female senior lecturer explained her ideas about research and scholarship as follows:

> The research and writing is a central part of my identity as an academic.
> To contribute actively to knowledge (rather than regurgitate other people's
> ideas) is something that inspires me. At the moment research/ scholarly
> activity is an which should be supported and encouraged far more than it is
> at the moment. (Participant 17, lines 24-26)

Academics have recognised the difficulty in producing research outputs and acknowledged that doing so was an achievement. As one interviewee reported: "Interesting at present as I am just starting to publish substantial pieces of work, which feels like quite an achievement." (Participant 11, lines 11-12). Others complained about the lack of time for this saying, "I'd like time to engage more in research. The demands of teaching are increasingly making even scholarship difficult." (Participant 22, lines 10-11)

Most interviewees rated research/scholarship highly but their teaching loads did not allow them enough time to do it. This made them unhappy and was accompanied with feelings of job dissatisfaction. Some frustrations were apparent, such as academic staff being asked to teach in so many areas that some of them felt that they did not know all the material they were teaching, their subject knowledge being spread too thinly. So much time and energy went into teaching preparation that research suffered or did not happen. A few interviewees were clearly not satisfied with the courses they delivered or their research performance. A senior lecturer with 4 years' job experience articulated his feelings in the following excerpt:

> I came into an academic role as I was primarily interested in my subject area rather than the teaching element. I hoped to develop this area of my role. I feel that I have missed the boat on this aspect of the job as the time that was available to develop this has now been removed. When I first started I was asked to teach in a number of areas that I was not familiar with and had to do a huge amount of work to gain familiarity with the material. More established and research active staff are valued more and get teaching in their key areas. So I felt I was fighting on all fronts. I feel I have failed in this area of the job. (Participant 23, lines 14-20)

Some of the responses were truly heartfelt displaying real concern and dissatisfaction, as the in following excerpt:

> The feelings are overwhelming, however what research or scholarship can be done after the university systematically destroyed research over the last 15 years by closing and demolishing existing research facilities, consequently taking research time off staffs' work plans, and even scholarly activities linked to official roles being restricted in a way that the role can hardly be fulfilled. Talented staff who joined the university with good research reputations, if they apply to other English universities get pretty openly told that they are not qualified for 'proper research based institutions' after such a time at the university. 40 hours off the teaching load for research activities, with the expectation that 2 peer reviewed papers will be published is ridiculous. The 40 hours (x2) do not cover the

time to write to high quality publications! When however, is the research to be done? (Participant 20, lines 15-24)

Sub-theme 5-Time pressures.

Many academics acknowledged that lack of time is one of the biggest barriers to doing research. They think increased teaching workloads have directly affected research. This is evident in the following excerpt: "This is what I enjoy about the job but I feel I have increasingly little time for research." (Participant 12, line 9)

A principle lecturer with 26 years' experience stated his feeling about the research/scholarship elements of his work and the effect of time pressures as follows: "I'd like time to engage more in research. The demands of teaching are increasingly making even scholarship difficult." (Participant 22, lines 8-9)

Another example from a principal lecturer stressed that time pressure was the main factor that inhibits academics doing more research: "Unfortunately, time is usually constrained, and so this bit is squashed into gaps, unless I have a specific project that I can work with deadlines, especially external deadlines." (Participant 29, lines 12-14)

This was a very common comment and the dissatisfaction was clear in replies such as: "No time for it=frustrating." (Participant 6, line 8). Others simply replied: "No time for research, not anything like enough time for scholarship." (Participant 8, line 10)

Sub-theme 6-Funding.

There was a strong agreement among interviewees that the university did not adequately fund or budget for research. As a result of this academics felt increasingly pressurised to attract external research funding. In the current economic climate it was recognised that this was even more difficult to do: "Funding for research is now scarce so getting external money for research is a real challenge." (Participant 1, lines 26-27). For others funding difficulties were tied up with time constraints: "Lack of time and internal funding for research and other scholarly activity." (Participant 18, line 33)

Theme 4: Administrative loads

Academics are extremely unhappy with the burdens of administration in their jobs. They reported several challenges associated with administration. All the transcripts revealed that academics are not pleased with the level of administration and the

bureaucracy within the university. While recognising that some elements of it were necessary, there was simply too much of it. However, a few academics did not deal much with administration (ALs) and a few others did mention that administration is a necessary part of being an academic and believed administration like teaching and research is a component of the academic job.

Sub-theme 1-Burdens of administration.

Some strong views were expressed about administrative burdens. A male senior lecturer described it as an evil: "A necessary evil." (Participant, 12, line 12). To verify this, a principal lecturer had the same feeling for the administration elements of the academic job: "necessary evil but sometimes assume a life of their own-gets out of hand." (Participant 2, line 10)

Many interviewees felt the most challenging and negative aspects of the job were related to administration. Many interviewees believed that administration wasted their time and was getting worse with less support from the administration teaching teams. They believed that there was too much administration, that it was not the duty of academics, and that it should be done by professional administration staff: "Administration should be done by administrators not academics." (Participant 8, line 12)

Sub-theme 2-Increasing administration.

A female professor with several years job experience strongly believed that administration is getting more and more each year. She expressed her ideas about the most rewarding and challenging elements of administration in the following excerpt: "There is nothing rewarding- it is the job of an administrator. I have trained to be a researcher and lecturer not a secretary." (Participant 15, lines 13-14)

Another interviewee became quite enraged about the administrative burdens:

> Rewarding:? I didn't become an academic to spend my life typing numbers
> into grade book. Challenging: the frustration in filling in sheet after sheet
> of paper to say a task has been done rather than being trusted and allowed
> to tick a box/sign to say it has been completed. The whole exercise takes
> so much effort and time that it is the task and not the underlying reason
> that drives the process. Quality control sometimes needs to look at the
> system-not just at the output. (Participant 17, lines 18-23)

There was a very strong and general consensus among academics to change administration in many ways throughout the entire transcript. It revealed that the interviewees wanted to cut down some of the administrations tasks from their duties. This issue negatively affected their productivity at work and made them exhausted: "The amount of administration The amount of administration The amount of administration." (Participant 15, lines 20-21). Another interviewee stated: "1, 2 and 3: Less administration work!" (Participant 21, line 21)

A suggestion from a male lecturer with five years' experience to solve the problem of administration tasks: "remove most administration duties from academics via support for a proper online assessment system that allows us to see students'/work." (Participant 5, lines 15-16)

Sub-theme 3-Seeing positives in negatives.

The administration scenario was identified as being stressful for many interviewees but there are still some academics that valued administration as one of the valuable aspects of academic work. They articulated that there are some rewarding aspects in this part of the job and felt that it is necessary for academics to do it. A senior lecturer was more positive about administration in spite of her initial negative feelings, "It is challenging because it is time-consuming, it is rewarding because it is still part of our help/contribution to students' education." (Participant 3, lines 18-19)

Theme 5: Task preferences in the academic role

In terms of the priority of teaching, research/scholarship, and administration, most interviewees preferred teaching as it was one of the main reasons that they joined the university, although a qualitative research study by Akerlind (2005) revealed that academics showed a greater commitment to research; they reported that job promotion and permanent status is significantly related to research rather than teaching. This theme includes three sub-themes of teaching priority, teaching and research, and balance of work roles.

Sub-theme 1-Teaching priority.

Many academic staff pointed out the importance of teaching rather than research and administration in their role. This contrasts with the earlier material when they were asked about research and valued it highly as a core part of their academic identity. One typical response from an interviewee was: "teaching-that's what I joined the uni to do." (Participant 2, line 13)

Sub-theme 2-Teaching and research.

A combination of teaching and research was frequently emphasised by the interviewees. They thought these two elements were the more satisfying aspects of their job and provided happiness and work satisfaction, saying, "Teaching and research are my favourite parts because that is what I am most enthusiastic about." (Participant 3, line 16). Another summarised what a lot of respondent felt: "Research and teaching are synergic both complement the other greatly, if given the appropriate support (time, resources, and encouragement)." (Participant 18, lines 24-25)

Sub-theme 3-Balance of work roles.

A balance between teaching, research/scholarship, and administration was an important issue for some interviewees. Indeed, many academics believed that these three elements (teaching, research/scholarship, and administration) are necessary components of an academic's job. This was summarised by one interviewee requesting: "A healthy mixture, cross fertilise each field. The absence of one of them (especially research) does compromise the others!" (Participant20, lines 26-27). Others see merit in all the components of the role saying: "I value all of them and find them equally rewarding in different ways." (Participant 16, line 13). Another emphasised the way they complemented each other, saying, "I think they all fit together, to be honest." (Participant 14, line 16)

Theme 6: Thoughts around leaving the academic environment

In many cases the interviewees reported that they were happy and enjoying their job and had no specific plan to change their job and/or leave the academic environment. Nevertheless, some of them took very seriously the issues of salary, the external unfavourable economic climate, and the increasing bureaucracy. This theme includes two main sub-themes: job satisfaction and job dissatisfaction.

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Sub-theme 1-Job satisfaction.

There is evidence throughout all the transcripts that academic staff were deriving some satisfaction from the different aspects of their job. They found some aspects of academic culture attractive and this motivated them to remain in academic roles. Examples of areas providing elements of job satisfaction included teaching, positive relationships with their colleagues, students' progression, and research. This lead to responses like: "I'm happy with my current job at the moment." (Participant 16, line 20). Others were doing comparisons with alternatives but concluding that academia was best. One lecturer summarised this by saying: "I couldn't think of any occupation that I would find attractive outside higher education." (Participant 18, line 39). For others there was evidence of really valuing the life of an academic but still wishing for better pay: "No (unless the pay was irresistible!). I've been there and done that with most other things and I like and feel privileged to be part of university life." (Participant 28, lines 18-19). For some of them the notion of leaving academia was almost unthinkable as one interviewee said: "I've worked all my life in HE, so the thought of life outside it is almost unthinkable. Perhaps as a copy-editor for some leading publisher?" (Participant 21, lines 22-23). Another responded that they had considered it but felt a bit stuck in terms of what they had to offer: "Yes, although I would only leave for a job that I would enjoy more. However, I feel I have little to offer outside of the university sector and am unsure what I could realistically go for!" (Participant 12, lines 1-3)

Sub-theme 2-Job dissatisfaction.

While the majority of interviewees in this study were satisfied with their academic jobs, there were a few academics who intended to leave the university. They believed some aspects of academic work made them stressed. The following is how one interviewee responded to the question of whether they would consider leaving academia:

> At the drop of a hat. I am very disillusioned with university work. There is too much administration and too many students to give them enough time. I am constantly under pressure. I would like to get a job which was not as stressful. (Participant 5, lines 22-25)

Another came across a very disillusioned with his work, saying:

> Yes I am from a practice not an academic background. I have failed to establish a research element to my work. I am stuck. I want to go

somewhere and do something useful. I feel we have conned a generation of students. I feel conned. (Participant 23, lines 31-33)

Frustration was evident in some responses, "Yes. I am sick of being in places where I am treated as a dogsbody and idiots are promoted above me." (Participant 24, lines 24-25)

One of the questions asked the interviewees to describe what they would change if they could in their job. This question generated a total of 30 responses (one interviewee answered "not sure"), which were all analysed and placed into different themes. The most commonly mentioned responses were as follows:

1. Administration.
2. Focusing more on teaching.
3. More opportunity for research and scholarship.
4. Providing job security.
5. Having a work planning system.
6. More interaction between faculties.
7. Improved management.
8. More pay and less work.

The principal themes with supplementary example quotes from the participants were provided as a general overview of main themes and sub-themes that extracted from thematic analysis (see Appendix 4.3).

5.6 Discussion

The current study examined the positive and negative aspects of an academic's role and examined how academics cope with stress at work in a sample of 31 academics from a UK post-92 teaching-focused university. The findings identified six themes in this qualitative study. These were: 'features of the academic job'; 'coping with stress at work'; 'positive and negative feelings around research/scholarship'; 'administrative loads'; 'task preferences in the academic role'; and ' thoughts around leaving the academic environment'.

Sources of stress

The findings of the current qualitative study revealed that increasing the number of students; heavy workloads and administrative burdens; poor management; funding cuts;

and threats from the government to attack the pension scheme were identified as the sources of stress amongst academics.

The results of research in the UK, USA, New Zealand, and Australia supported our findings. These studies reported that work overload, time pressure, changing job role, poor management, inadequate sources of funding, and poor communication with students were the sources of stress amongst academics (for a review see Gillespie et al., 2001).

The study by Gillespie et al. (2001) found five sources of stress. They included: a lack of funding for resources and support services; work overload; poor management practices; insufficient recognition and rewards; and job insecurity. In both Australian and British universities the most significant sources of stress were the same, being related to heavy workloads, increasing the number of students, funding pressures, and striving for publications (Kinman et al., 2003; Winefield, 2001). Likewise, Earley (1994) reported that the majority of participants found workloads, the completion of paper work and administration with little support, and poor communication were stressors in academic work (Coetzee & Rothmann, 2005). Oshagbemi (2000) conducted a research to investigate the levels of job satisfaction in academics in terms of teaching, research and administration, and management. The results indicated that many academics in higher education were not satisfied with the administration element of their job or with management at their workplace.

As previously mentioned, it appears from the current study that the increasing number of students is identified as a source of stress amongst academics. The growth in the number of students has resulted in a dramatic increase in the sizes of classes. Consequently, it has affected the interaction between lectures and students. Indeed, the lack of corresponding increase in resources and support makes the situation even more difficult and has led to increased dissatisfaction and stress for academics. According to reports, increasing the number of students without enhancing resource allocation has resulted in more stress and affected the quality of communication between teacher and students (AUT, 1999; cited in Tytherleigh et al., 2005). Similarly, Winefield (2000) reported that in the USA, UK, and New Zealand academics experienced more pressure due to increases in the number of students. Levenson (2004) provided evidence that larger class sizes and heavy teaching loads led to more stress amongst academics in Australia and New Zealand, as linked to the increased class sizes are also increased

assessment and marking loads. These will of course add to the feelings of being overloaded as in the current study when academics highlighted the difficulties they faced meeting marking and moderation deadlines and doing these well.

It emerged from the study that heavy workloads are identified as another stressor at work. Tytherleigh et al. (2005) found academics were stressed by heavy workloads; they therefore have insufficient time to do their job as they wish to do. The current study found that academics attributed aspects of this heavy workload to increased administration. They generally believed that increasing administration wasted time that they could spend on teaching and other aspect of their work. Adams (1998) found that the increased demands of administration work interfered with both teaching and research among Australian academics. Basically, they did not feel that the volume of administration they experienced was related to their actual responsibilities and they believed that it should be undertaken by administrators. Akerlind (2005) commented that working conditions at universities were becoming more stressful as a result of workloads that had emerged from the reduction of administrators. However, a small number of academics expressed a positive feeling about administration in terms of its importance in managing their students and modules. Kinman et al. (2006) found that the perception of heavy administration loads that they found in 1998 had decreased by 2004. In many universities including the one where the study occurred, student numbers have increased significantly since 2004 and with these increases in numbers go increased administrative loads.

Poor management was a concern for many academics and they felt it added more pressure at work. They found that the quality of management was poor and they felt that their university required some essential changes if the situation was to be improved. It has been suggested that the academic work environment needs more professional staff to undertake management roles. Similarly, Gillespie et al. (2001) in a longitudinal study several years ago found that poor management practice was identified as a source of stress among Australian academics. In a qualitative research study Ogbonna and Harris (2004) also found that the interaction between academics and managers was unclear or blurred amongst UK university lecturers.

The sub-theme of funding that emerged from theme three, 'positive and negative feelings around research/scholarship' revealed some other sources of stress at work. It is notable that financial changes that started two decades ago were having negative outcomes on the UK

academic environment (Fisher, 1994; Kinman et al., 2006). From the findings in the current study, the lack of sufficient funding, especially to do research, was a major source of stress and identified as a negative aspect of the academic role. The results of some research supported our findings that funding pressures were an important concern among lecturers and researchers in Australian and UK academics (Jacob et al., 2007; Kinman & Jones, 2008; Kinman & Jones, 2003; Tytherleigh et al., 2005; Winefield et al., 2003). In terms of current issues, the UK government plans related to the pension scheme made academics worry about their future. Hence, it is identified as a stressor.

Coping with stress

As previously mentioned, a certain level of stress is expected in relation to work (NICE, 2009). However, individuals can moderate the negative effects of stress through the use of coping strategies. One of the main aims of this study was to investigate how academics coped with stress at work using a qualitative study. Previous research on coping with stress in academia has tended to use quantitative methods (Lindsay, Hanson, Taylor, & McBurney, 2008).

Coping strategies refer to behavioural and psychological efforts to tolerate, eliminate, or decrease the impacts of stressful events (Mazzola et al., 2011). Academics participating in the current study emphasised support from colleagues and time management as positive coping strategies. Support from colleagues helped academics to cope positively with stress at work. Many interviewees experienced a good feeling after sharing their feelings and problems with others as they worked in the same environment they can understand the situation and provided encouragement. Support from colleagues was therefore a positive and helpful way to decrease the negative effects of stress at work. Oshagbemi (1998, 2000) reported that interactions with colleagues were enjoyable for academics. As discussed in Chapter 2, Lacy and Sheehan (1997) also found that relationship with colleagues was one of the greatest predictor of job satisfaction among academics.

Time management based on prioritising and working in the evenings and weekends was acknowledged as a coping strategy in this research. Academics stated that working at the weekends and in the evenings enable them to finish their work on time and increased their satisfaction. The existing literature provides some support for the current research findings. For example, Kearns and Gardiner (2007) found that time management behaviour like planning and prioritising helped academics to reduce stress

at work and increased feelings of job satisfaction. Other research found that working in the evenings and weekends were identified as stressors in academic jobs (Dua, 1994; Kinman, 1998; Winefield et al., 2003).

Job evaluations

A number of quantitative studies highlighted the importance in future research of using interviews to achieve more information about academics' views to understand better the nature of the job and associated stressors (Becher,1989; Boice,1992; Clark ,1987; Potts,1997; cited in Rhodes, Hollinshead, & Nevill, 2007). This study has done this. Overall there was a mixture of positive and negative aspects and some elements of the job were really valued by all respondents. The picture painted is more complex than that presented in some of the previous quantitative studies (Rhodes et al., 2007).

From the findings it appeared that the majority of the interviewees were relatively happy with their work as an academic. This was especially true in relation to teaching and academics' relationships with students. As previously mentioned the institution that data was collected is a post-92 teaching-focused university. This may explain why teaching was the most important aspect of academics' role. In research intensive universities this may be different as research to be prioritised. Future research should examine this. However, the findings of Rhodes et al. (2007) in a mixed methods study supported our results that teaching and involvement with students were the most satisfactory parts of being an academic. Autonomy and freedom at work were also identified as valuable aspects of being an academic. Freedom and academic autonomy also emerged as core valued components of the role for most Australian academics in a qualitative study (Akerlind, 2005). Likewise, Gillespie et al. (2001) conducted a qualitative study using focus groups to explore the sources of stress and coping from the academics' experiences. They found that flexibility and autonomy at work were identified as moderators to help cope with stress among Australian academics.

However, some academics were not satisfied with their job and identified some challenges or difficulties in their role. For example, some of them appraised their job as being insecure and they were worried about their future. A study by the Higher Education Funding Council pointed out that job insecurity was the highest rated stressor that was mentioned by all types of employees in higher education (Tytherleigh et al., 2005). Kinman et al. (2006) found that employment in UK universities has become less secure in the six years from 1998-2004. The current study also found that the lack of job

security was a concern for many academics, especially those employed on temporary contracts. They thought that they cannot be optimistic about having the same job in the future. Lowe (1994) commented that the temporary contract academics are considered as second-class citizens in universities. They had no career prospects, poor facilities, and limited funding (Bassett, 1998). An earlier qualitative study revealed that academics with a temporary contract were unable to cope with management policies related to the bureaucracy connected with the library, email facilities, photocopying facilities and so on and they were not sufficiently supported (Barnes & O'Hara, 1999). The current study found that some academics, including some temporary contract staff, were not satisfied with their office environment, lighting, and photocopying and aspects of the management culture.

There was a high level of agreement amongst academics that they are happy to stay in the higher education sector. A few intended to leave at some point, the reasons given included the increasing number of students; too much administration; too many pressures; low pay; and a non-respectful environment that all increased the levels of stress at work. Horton (2006) found some academics were not satisfied with their jobs and preferred to leave the academic environment. Similarly, the results of another study indicated that many academics intended to leave academia due to low salaries; job stress; poor management and increased bureaucracy; less promotion; and long working hours as discussed in Chapter 2 (Kinman et al., 2006).

Limitations

One of the most important limitations of the current study was related to anonymity: it was an online interview, meaning that contact information for the participants was not available; therefore if the researcher required more explanation or clarification of the answers it was not possible to contact interviewees. The interviews were also largely structured although interviewees could add additional comments in a separate text box and some academics did add.

Conclusion

These qualitative results highlight the importance of the work environment at university with a focus on how academics evaluate the positive and negative aspects of their role in terms of teaching, research/scholarship, and administration in a post-92 teaching-focused university in UK. In addition, how academics cope with stress at work was explored. The results identified six themes. These included features of the academic job,

coping with stress at work, positive and negative feelings around research/scholarship, administrative loads, task preferences in the academic role, and thoughts around leaving the academic environment. Academics reported that they are stressed because of the increasing the number of students, heavy workloads, administration, poor management, funding cuts, and threat from government. These stressors can lead to feelings of less interaction with students, job dissatisfaction, deteriorating time because of increasing administration, lack of sufficient funding and in particular for research, and insecure job in their career future. However, they believed that support from colleagues and time management can moderate some of the negative consequences of job stress.

Furthermore, reports by the academics interviewed clearly revealed that they are happy with their job because of factors such as teaching and their relationships with students, autonomy and freedom at work, and support from colleagues.

Chapter 6-Study 3: Exploring the acceptability of a positive psychology intervention in increasing well-being

6.1 Introduction

Over the past three decades job stress has been increasing in many countries including the UK (Health & Safety Executive, 2003). Although academic jobs are considered to be less stressful than other jobs, Fisher (1994), and Boyd et al. (2011) reported that the level of stress has been increasing among academics (see Chapters 2 & 4). Similarly, it was revealed from the results of the qualitative study of stress and coping in academic staff (Study 2) that academics are stressed at work for example because of the increasing numbers of students and heavy workloads (see Chapter 5). Moreover, this increase has affected academics' health (Kinman, 1998). Therefore finding a way to protect academic staff from the negative consequences of stress and develop their health and well-being is essential in the university work environment. As outlined in Chapters 2 and 4, stress at work is predictable but the way that individuals cope with it or appraise, it can change the consequences of stress in a positive or a negative way.

Positive psychology intervention aimed at increasing subjective well-being

The term subjective well-being has been argued to be similar with happiness (Deci & Ryan, 2008); thus increasing one's well-being has been regarded as equivalent to increasing one's feelings of happiness. Positive psychology, with its focus on human strengths opened a new view of psychology as explored in the literature review (Wood et al., 2007). Positive psychology initially was promoted as a way to enhance well-being among well individuals. The current study considered happiness and well-being as being equivalent.

Positive psychology interventions are cognitive and behavioural strategies that can be learned by individuals to improve their well-being (Fredrickson, 2001; King, 2008; Sin & Lyubomirsky, 2009). Seligman et al. (2005) examined the effectiveness of positive psychology interventions as a way to treat depression. Their focusing on positive emotions and character strengths was not just to find a way to decrease the negative symptoms of depression like sadness but to help individuals to improve their happiness or well-being (Seligman et al., 2005). In other words, the intervention proposed by Seligman et al. (2005) aimed to increase happiness rather than just to decrease distress (Schueller, 2010). As discussed in Chapter 2, the interventions suggested by Seligman

et al. (2005) consisted of different exercises that can be practiced in a group or individually such as: using your signature strengths (identifying your top five strengths and trying to use them in some new way daily); the Three Good Things exercise (write three good experiences and the reasons why they were good experiences for one week), gratitude visit (write a letter to someone explaining why you feel grateful for something they have done or said), You are the best (participants were asked to write about a time when they were at their best and then to reflect on the personal strengths displayed in the story once every day for a week). These researchers recruited 411 participants who were slightly depressed and motivated to become happier. Seligman et al. (2005) reported that writing about three good things made individuals happier and reduced depression and anxiety over six months. They also found that using your signature strengths and gratitude visits resulted in decreased depression and anxiety and increased happiness.

The main advantage of positive psychology interventions is that they can easily be tailored to meet individual requirements, and tend to be cost-effective to implement, being short, and often available online in a self-help format (Schueller, 2010). They are classified as psycho-educational interventions as they tend to be straightforward to administer being relatively simple. This again makes them cost-effective and also facilitates online delivery (Seligman et al., 2005).

The importance of using intervention at work to promote well-being has been emphasised in previous research. The findings showed interventions had positive outcomes for both individuals and organisations in terms of reduction of anxiety and depression, improved productivity at work, and reduced absenteeism (Giga, Cooper, & Faragher, 2003).

6.2 Rationale for the current study

The original intention was to recruit a large enough sample for an intervention and a comparable control group but it proved very difficult (see Chapter 1). From reviewing the research literature it became apparent that there are no published evaluations of how participants feel about undertaking positive psychology interventions. The focus is also on quantitatively evaluating the impact of the intervention. So the decision was made to run an intervention with a small number of volunteers, and then collect data via a focus group discussion to explore how the participants experienced the intervention. These positive psychology interventions have been developed and evaluated in the United

States and the question arises of how acceptable such interventions are with a British sample in terms of cultural differences. The three good things exercise is very American, with a potentially focus on positivity that might be contentious. The aim was to explore participants' feelings about the intervention using a focus group held after the intervention.

The intervention included appropriate quantitative measures as in a standard evaluation study, accepting that these measures will only provide some indicative measures of change as a result of the intervention completed by the participants. Given that these quantitative results cannot provide any real evaluation of the impact of the intervention on well-being, they are presented for interest after the qualitative results.

The research question is outlined below:

1. How do academics evaluate the experience of undertaking a positive psychology self-help intervention designed to increase well-being?

6.3 Methods

6.3.1 Participants

Five female academics from a UK university in the north of England volunteered to participate in the current study. The participants were three PhD students and two academics. They all were involved in teaching and research in Psychology. The current study did not collect age details in order to prevent participants from being identified.

6.3.2 Procedures

Intervention

Participants received an online self-help intervention package (the Three Good Things exercise) in the format of a diary with instructions which took around 5 to10 minutes per day to complete for 5 working days (see Appendix 7.1). This exercise asks participants to write the three good things that went well every day for five days and also to reflect why they were positive events (Seligman et al., 2005). Participants were asked to provide an identifier code for anonymity and to help the researcher to match data.

Materials for the intervention

A research diary in the format of an online booklet was provided for the participants to record their daily events. The booklet provided participants with information about the study and instructions for completing the diary. The booklet then provided participants with sample answers in order to clearly show them what they were expected to do (see Appendix 7.2). Examples for the positive experience and the reasons were provided for the participants in their diary booklets related to work as follows:

Positive experience: *I managed to finish marking before the moderation deadline*

Reason (s): *I took the time and made the effort and now I feel good.*

The reason behind selecting these examples was based on the results of Study 2 (see chapter 5). The examples are provided for the participants merely to help them to identify positive events big or small. The final five pages of the booklet consisted of the five days diary. This comprised five tables which asked participants to write about three positive things that happened and why each went well as previously mentioned. The data extracted from the diaries will be analysed by using thematic analysis (Braun & Clarke, 2006).

Procedure for the focus group

Participants were asked to attend a focus group discussion two weeks after completing the diaries to share their experience of undertaking a positive psychology intervention (see focus group questions in Appendix 8.1). An informed consent form was also given to participants before the focus group discussion started (see Appendix 5.3). The discussion took 40 minutes and data was collected by using tape recorders. Two devices were used to record the session: one belonged to the university and the other was for the researcher. The reason for using two tape recorders was to make sure the study did not miss any data. The data was transcribed and after transcriptions all recorded data was deleted. A debriefing letter detailing sources of support was provided for the participants if they felt they needed any help (see Appendix 3.2).

Procedure for the quantitative part of the current study

All participants were initially contacted by email inviting them to take part in the quantitative part of the current study. The email contained the aim of the study and all

details relating to the study, as well as a direct link to the online survey. The data provided by all participants was submitted anonymously to a central site of the university. Participants were asked to complete a package of measures at three time points, pre-diary completion, post-diary completion, and at a two-week follow up.

Completing the online questionnaire as a pre-intervention measure took between 5 and10 minutes. The questionnaire began by requesting demographic information including gender and academics' position at university. All the scales described below were entered in a random order with the exception of ensuring that the questionnaire began with a positive measure of strengths. At the end of questionnaire, participants were asked to provide an identifier code and their email address for sending them the three good things exercise instructions (see Appendix 7.1) and diaries. The same procedure was implemented following completion of the intervention. However, as the focus group was held two weeks after completion of the intervention, participants were asked to complete paper versions of the questionnaires before the focus group began again using identifier codes.

6.3.3 Measures of quantitative section

Stress scale

The Perceived Stress Scale (PSS; Cohen et al., 1983) can predict the range of health-related consequences presumed to be associated with appraisal stress. In the transactional model of stress appraisal is a central component of understanding stress (Lazarus, 1990). The PSS is used to measure the perception of stress (see Appendix 6.1.1). The scale is a 10-item self-report scale that ask about feelings and thoughts of individuals' appraisal of stressful events in the past month, (e.g., In the last month, "how often have you felt confident about your ability to handle your personal problems?"), or ("in the last month, how often have you felt nervous or stressed?"). Participants are requested to rate the extent of their agreement with these items using a 5-point Likert scale ranging from 0 (*never*) to 4 (*very often*). The PSS scores are obtained by reversing responses for items 4, 5, 7, and 8 (e.g. 0=4, 1=3, 2=2, 3=1, and 4=0). Internal consistency has been reported $\alpha=0.78$ (Cohen et al., 1983).

Gratitude scale

To measure the level of gratitude the gratitude questionnaire scale is used (GQ-6; McCullough, Emmons, & Tsang, 2002). The GQ assesses four different facets of

gratitude include: intensity (e.g. ''I have so much in life to be thankful for''); frequency (e.g., ''Long amounts of time can go by before I feel grateful to something or someone''); span or the variety of life aspects (e.g., ''As I get older, I find myself more able to appreciate the people, events and situations that have been part of my life history''); and density or the number of persons that can elicit grateful feeling (e.g., ''I am grateful to a wide variety of people''). Respondents are asked to indicate their judgement whether the statement in each item on a seven-point Likert scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*) (see Appendix 6.1.5). A total score can be obtained by summing the six-item responses (two items are reverse scored), with higher scores reflecting greater gratitude (Chan, 2010). Cronbach's alphas estimated for gratitude between 0.76 and 0.84 (McCullough et al., 2002).

Subjective well-being scales

To assess the cognitive dimension of subjective well-being, the satisfaction with life scale (Diener et al., 1985) was used (see Appendix 6.1.2). The five-item SWL assesses general satisfaction with life as the cognitive aspect of subjective well-being. It reveals the individual's own judgement of his or her quality of life (e.g., ''I am satisfied with my life''). Participants are asked to indicate their judgement as to whether each of the five statements was descriptive of them using a seven-point scale ranging from 1 (*strongly disagree)* to 7 (*strongly agree*). The scale has demonstrated high internal consistency (Cronbach's Cronbach α=0.87). A total score can be obtained by summing the five-item responses, with higher scores reflecting more satisfaction with life (Diener et al., 1985; Diener, et al., 1999; Pavot & Diener, 1993).

To assess the affective aspect of subjective well-being, the positive and negative affect scale (Watson, Clark, & Tellegen, 1988) was used (see Appendix 6.1.4). The PANAS includes two scales: one assessing positive affect and the other one assessing negative affect. Each scale contains 10 positive emotion adjectives (e.g., ''Enthusiastic''), and 10 negative emotion adjective (e.g., ''Upset'') which are rated to indicate the respondent's general perception of the amount of time spent experiencing each emotion. The two scales are reported to be highly internally consistent Cronbach's alpha estimated for PA above 0.88, and for NA 0.88, largely uncorrelated and stable at appropriate levels over a two-month time period (Watson et al., 1988). In completing the scales, participants are asked to make their judgements of experiencing the emotions in general on a five-point scale: 1 (*not at all*), 2 (*a little*), 3 (*moderately*), 4 (*quite a bit*) and 5 (*extremely*). A total

score on positive affect and one on negative affect can be obtained by summing the ratings on the relevant items.

Mental health scale

In order to assess mental health the General Health Questionnaire (GHQ-12; Goldberg & Williams, 1988) was used. The GHQ-12 is a screening tool to identify the psychological distress experienced by the respondents within the past few weeks. The GHQ-12 is the shortened version of full version of general health questionnaire. The scale include 12 items asks whether the respondents has experienced a particular symptom or item of behaviour over the past few weeks. For example ("Have you recently lost much sleep over worry?"). Respondents are asked to rate the extent of their agreement with these items using a 4-point Likert scale ranging from 1(*better than usual*) to 4 (*much less than usual*) (see Appendix 6.1.3). Scores are ranges from 0 to 36 that after reversing scale ranging, the higher scores indicating a greater probability of mental health. The Cronbach's alpha estimated from 0.78 to 0.95 in various studies (Goldberg, 1992).

6.3.4 Research ethics

Ethics approval for the current study was provided by the University Research Ethics Committee (see Appendix 11). Participants received an information sheet to make them aware of the purpose of study and how it would proceed (see Appendix 5.1). In the qualitative parts of the study participants provided informed consent (see Appendix 5.3). It was made clear to participants that the anonymity of the academics was assured by identifying them at each time point by a code consisting of their mothers' name and the last three numbers of their mobile phone. Also the participants could stop completing the online questionnaire at any point and that by pressing the submit button at the end they were giving informed consent for their data to be used. It was also made clear to participants that they could withdraw from the qualitative parts of this study (the positive psychology intervention and the focus group discussion) at any time. At the end of the survey at Time 1 a debriefing section was provided with details of university sources of help and support if participants felt stressed. The contact with details of the researcher and her supervisor were provided in the email for any participants who required further information (see Appendix 5.2).

6.4 Presentation of data

The diaries kept by participants recording the three good things that happened each day will be presented first as these provide evidence that participants did follow the instructions accurately. Next the focus group data will be presented and finally the quantitative data collected will be summarised. As mentioned previously, as the numbers are small, the quantitative data can only provide an indication of the impact of the intervention.

Qualitative data analysis

Data was analysed again based on Braun and Clarke's (2006) six stages of analysis (see Chapter 3). The same analytical procedures were undertaken for the diary data and the focus group. An inductive approach was chosen for interpreting data to make sure the themes that emerged from the data were not pre-defined ones. The coding procedure was manual as the amount of data that emerged from the transcriptions was not large so this was relatively easy to accomplish. The focus group tape recording was transcribed and the transcription was checked against the recording. To begin, the researcher carefully read and re-read the text many times to become familiar with the data. Codes were selected until primary coding was completed. The next step involved reviewing the themes and defining the themes. Finally the principal themes and sub-themes were reported. As mentioned in Chapter 5, to check the reliability of the coding one psychologist read through the transcription and identified the same coding as the researcher.

6.5 Results

Research diary

Four main themes were extracted from the academics' positive experience through the research diaries. These were: (1) research activities (2) features of job satisfaction (3) social support at work (4) and features of happiness. Within each theme supplementary sub-themes were identified. These are summarised in Table 6.1:

Table 6. 1 Themes and supplementary sub-themes of the positive experiences

Theme 1

Research activities

Sub-theme 1-Research funding

Sub-theme 2-Publications

Sub-theme 3- Presenting at a conference

Sub-theme 4-Data collection and analysis

Theme 2

Features of job satisfaction

Sub-theme 1-Colleagues

Sub-theme 2-Students

Sub-theme 3-Teaching

Theme 3

Social support at work

Sub-theme 1-Spending time with colleagues

Sub-theme 2-Providing support for colleagues

Theme 4

Features of happiness

Sub-theme 1-Spending time with family

Sub-theme 2-Social enjoyment with friends

Sub-theme 3-Shopping

Theme (1): Research activities

The theme of research activity revealed that some accomplishments related to research work are important for academics. They are interested in doing research at work and identified it as an aspect of academic work that makes them happy. This theme comprises four sub-themes research funding; publications; presenting at a conference; and data collection and analysis.

Sub-theme 1-Research funding.

There was a similar feeling among research participants that receiving funding for research is a key factor in an academic's work. The specific positive aspect of obtaining funding in the work environment is that it makes them happy and confident in relation to their ability to undertake research at work.

One of the associate lecturers expresses her positive experience related to funding in the following excerpt:

> **Positive Experience:** "I finalised a conference proposal ready to send off tomorrow to obtain funding from the department head."
>
> **Reason(s):** "It will help me (and others at uni) if we can host a conference next year so it was satisfying to compare the proposal at last." (Participant 1, lines 9-12)

Sub-theme 2-Publications.

Another positive experience of academics' work is when their papers are accepted for publication in academic journals or during the work on their documents. They identified this as a big achievement at work that makes them pleased and satisfied. A senior lecturer emphasised that publication is important in an academic's career. She described her positive feeling as follows:

> **Positive Experience:** "My part of the research report finished and positive feedback from the co-author."
>
> **Reason(s):** "This was good for two reasons, firstly the sense of achievement in finishing my part of the task at a busy time, and secondly the validation of having my colleague report back that what I had done was good." (Participant 4, lines 161-165)

Verifying this finding, one of the academics identified even providing a document for publication in a journal as an indicator of a good progress for her at work:

> **Positive Experience:** "Finished working on a manuscript for publication."
>
> **Reason(s):** "Have been working on this for a long time, feels good that it's almost there." (Participant 2, lines 71-72)

Sub-theme 3-Presenting at a conference.

Some strong opinions were expressed about activities related to attending and presenting at a conference. Participants identified attending at a conference as one of the most positive aspects of academic work; they are happy doing it and considered it as a

major land-mark of progress in academic life. One of academic expresses her positive experience in the following excerpt:

Positive Experience: "Presenting at the conference."

Reason(s): This was a mixed experience because , although I didn't feel the presentation went as well as I would have liked, I had some good questions and positive feedback afterwards, so I felt it had been worthwhile , and it was nice to be invited and paid to speak for the first time!. (Participant 4, lines 182-186)

Sub-theme 4-Data collection and analysis.

Data collection was a reflection of good progress for academics who are dealing with research and in particular for research students finishing their studies. They felt it made them joyful and gave a feeling of satisfaction. A PhD student explained her ideas about data collection as follows:

Positive Experience: "I participated in active reading about a method of data analysis I am currently unfamiliar with."

Reason(s): "By reading this despite being tired, I feel I have contributed towards the next phase of my research data analysis." (Participant 1, lines 1-4)

Another interviewee stated her positive feeling about data collection as in the following excerpt:

Positive Experience: "I contributed an email and doodle poll of available dates to my work ready to send out tomorrow."

Reason(s): "To move forward the next phase of data collection for my research which felt satisfying as I had not felt things were processing well." (Participant 1, lines 5-8)

Theme 2: Features of job satisfaction

This theme explored the area of academics' pleasure in their work. In spite of several problems at work, they have experienced some pleasurable times from different aspects of their job. They therefore felt satisfied and happy. This theme comprises three main sub-themes colleagues; students; and teaching.

Sub-theme 1-Colleagues.

A positive relationship with colleagues was identified as the most precious part of an academic's job. Academics identified support from colleagues as a positive essential feature of academic life at the university. The feeling of gaining support from colleagues gave a sense of being valued. One of the academic emphasised how supporting a colleague is important for her in the following excerpt:

> **Positive Experience:** "A work colleague covered for me while I escorted my friend to hospital (covered my teaching session for labs)."

> **Reason(s):** It felt good knowing we all support each other at times of difficulties. A real sense of camaraderie." (Participant 1, lines 37-40)

One associate lecturer summarised what she valued as follows:

> **Positive Experiences:** "Had a nice chat with Louise."

> **Reason(s):** " always cheers me up!" (Participant 3, lines 107-109)

Sub-theme 2-Students.

Focusing on the students' requirements and what they desired to achieve from their education was identified as an important theme from the academics' perspective. Academics identified having a good relationship with students and helping them to make progress in their study as enjoyable feelings. They think being respected by students makes them delighted at work and provides a high level of satisfaction.

An associate lecturer simply summarised what was positive by saying:

> **Positive experiences:** "Helped out a student with their stats."

> **Reason(s):** "They were really thankful that I'd taken the time to help them." (Participant 2, lines 69-70)

Thus one of the most positive feelings of the job was related to relationship with students as was verified by another academic in the following excerpt:

> **Positive Experience:** "Had a good meeting with student."

> **Reason(s):** "Student is motivated and it is a pleasure to talk to them." (Participant 3, lines 113-114)

There was therefore a strong agreement among participants that having a good relationship with their students makes them happy. They identified interaction with students as an important part of an academics' work, especially those who are involved with PhD students. The following is how a senior lecturer commented on positive feeling in relating with her students and what she had learnt:

> **Positive Experience:** "I had a good first meeting with my new PhD student and co-supervisor."

> **Reason(s):** "I took this on despite suggestions it may be too onerous on top of 4 other supervisions, but I think I will actually learn a lot from doing this and the student's interesting approach and methodology." (Participant 4, lines 124-128)

Again in the following excerpt the focus was on how students' reactions or feelings make academics satisfied in their role at university:

> **Positive Experience:** "Lecturer for fun 1 module went well."

> **Reason(s):** "Students smiled and I raised a chortle at the end." (Participant 3, lines 88-89)

A senior lecturer expresses her feeling as follows:

> **Positive Experience:** "I gave feedback to two undergrad students who had submitted research project proformas."

> **Reason(s):** "I feel like I am making some progress with these supervisions, and was able to give mainly positive feedback, which was nice." (Participant 4, lines 133-136)

Sub-theme 3-Teaching.

From the academics' perspective, teaching is one of the more satisfying features of their job. It helps them to feel good about being an academic. A senior lecturer says this without direct reference to teaching:

> **Positive Experience:** "Most of my undergraduate project students submitted their proformas over the weekend or today. Despite worries I might not find time to do these today, I have been able to."

Reason(s): "It is good to feel on top of your work even on high-pressured days and it means I can more easily get on with my work tomorrow and the students should be able to submit on time." (Participant 4, lines 141-146)

Another academic expresses her positive experience related to this feature of the academic job (teaching) as follows:

Positive Experiences: "I prepared for demonstrating tomorrow."

Reason(s): "I feel organised and well-prepared for demonstrating." (Participant 5, lines 193-194)

Similarly, a PhD student had the same feeling:

Positive Experiences: "I prepared my notes for teaching in labs tomorrow."

Reason(s): "I felt confident in my ability to support students by reassuring my knowledge." (Participant 1, lines 24-26)

Theme 3: Social support at work

This theme explored how academics feel about social support at university. Examples included spending time with colleagues and providing support for colleagues.

Sub-theme 1-Spending time with colleagues.

Academics identified colleagues as an important part of their social network. They would like to interact with colleagues and share some of their life experience with them.

A senior lecturer says:

Positive Experience: "Good catch-up meeting with an old colleague."

Reason(s): Nice to see my colleague again after about 6 months , share stories and remind myself that, although there is busyness and stress at work, I am still very happy to be where I am and not I where I was previously. (Participant 4, lines 174-177)

Sub-theme 2-Providing support for colleagues.

Some academics think their work environment is truly friendly. They are enjoying supporting each other at work especially in hard times when they need mutual support at work.

A PhD student expresses her positive feelings in a stressful time as follows:

> **Positive Experience:** "Supported a work colleague who was taken ill by escorting her/him to receive medical attention."
>
> **Reason(s):** "It felt good to support a friend and colleague in distress." (Participant 1, lines 37-40)

Theme 4: Features of happiness

This theme explored how academics are happy with their life in terms of being with family, with friends, and how they entertained themselves and relaxed. This theme consisted of three sub-themes spending time with family; social enjoyment with friends; and shopping.

Sub-theme 1-Spending time with family.

Providing support for a family member and dealing with positive and negative aspects of their life is important for academics. Being thoughtful about family, helping, supporting, and spending time with them can bring comfort for academics. This gave them happiness as follows:

> **Positive Experience:** "Attending an appointment with family to secure some financial and health arrangements to support my mother."
>
> **Reason(s):** "It was a relief to know this is in place so that we can care for my mother who is becoming increasingly frail." (Participant 1, lines 48-51)

Another academic indicated that spending time with family for example her partner is de- stressing and enjoyable:

> **Positive Experience:** "Had a nice evening with my partner and the TV."
>
> **Reason(s):** "Managed to relax and just watch the TV." (Participant 3, lines 120-121)

Similarly another academic mentioned that spending time with her husband make her cheerful:

> **Positive Experience:** "Went out for a meal with my husband."
>
> **Reason(s):** "It was nice to spend some time together as we don't often get chance." (Participant 2, lines 81-82)

Sub-theme 2-Social enjoyment with friends.

Academics identified meeting friends and having some amusing times as a positive experience in their daily lives. One associate lecturer regarded spending time out with friends as a way to reward herself, as she tends to be a workaholic. She expressed her positive feelings thus:

> **Positive Experience:** "Went to cinema with friends."
>
> **Reason(s):** "Have been working really hard so it's nice to feel rewarded." (Participant 2, lines 75-76)

Sub-theme 3-Shopping.

Shopping was identified something that makes these academics happy, especially when shopping is for a specific person or for some important events in their life.

A PhD student expressed her positive feeling as follows:

> **Positive Experience:** "Arranging a presentation of a card and present for a colleague who is leaving."
>
> **Reason(s):** "I felt important to mark the end of her hard working wish her well for the future." (Participant 1, lines 52-55)

An associate lecturer summarised what makes her happy in the following excerpt:

> **Positive Experience:** "Did some X-mas shopping!"
>
> **Reason(s):** "Feels good to make a need start as I know I won't be overwhelmed come December." (Participant 2, lines 66-68)

It is worth mentioning that this data was collected at the end of October.

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To summarise, the most frequent comments of positive experiences extracted from the research diaries by academics through the positive psychology intervention (the three good things) were around areas such as; research, teaching, students, colleagues, family, friends, and amusement.

Focus group discussion

The content analysis of the academics' focus group discussion identified four principle themes and nine sub-themes by using thematic analysis. These themes represented the participants' evaluations of the positive psychology intervention. These were: (1) identifying positives when things are hectic (2) the positive consequences of the three good things (3) the negative aspects of practicing the three good things (4) furtherance of the exercise (see Table 6.2).

Table 6. 2 Themes and complementary sub-themes of the focus group discussion

Theme 1
Identifying positives when things are hectic
Sub-theme 1-Shifting from negatives to positives
Sub-theme 2- Identifying positives however big/small
Theme 2
The positive consequences of the three good things
Sub-theme 1-Changing attitudes
Sub-theme 2-Stop and think
Sub-theme 3-Positive influences of the exercise
Theme 3
The negative aspects of practicing the three good things
Sub-theme 1-Extra burdens
Sub-theme 2-The hard elements of the exercise
Theme 4
Furtherance of the exercise
Sub-theme 1-Positive attitudes towards the three good things exercise
Sub-theme 2-Doing the exercise in stressful times

As focus group discussion is acknowledged to occur in a friendly environment (Morgan, 1996), names were given to participants rather than the numbers used previously. These were not participants' real names.

Theme 1: Identifying positives when things are hectic

Most people have experienced things going wrong for them, but their reactions to the events are different. The approach that people take to appraise events will therefore determine whether events are stressful or not. The transactional model of stress and coping, emphasised that appraisal is conceptualised as a cognitive process to evaluate events in the environment (Lazarus & Folkman, 1988). In general, individuals tend to focus on the negative or unpleasant thing rather than on the positive or pleasant one. The participants in the current study mentioned that it was easy to identify the things that are not working well rather than working well. The intervention therefore made them think about positive things in spite of experiencing a hard time. This theme comprised two sub-themes: 'shifting from negatives to positives'; and 'identifying positives however big/small.'

Sub-theme 1-Shifting from negatives to positives.

Some academics struggled to find three good things in the first day of the positive psychology intervention as they focused more on the negative things. They pointed out it was hard to identify positives whilst in a negative mind set.

One associate lecturer expressed her opinion about finding positive things as follows:

> It was quite interesting actually because I had quite a difficult week and I had been very much focused on the negative aspects of the week and what I hadn't done and what had not gone well, so being forced to actually think about things that had gone well it was quite interesting and I kind of was going Oh, good things did also happen actually. Yeah, it was interesting to have that insight and I might not have got it otherwise. (Lucy, lines 16-21)

Another academic showed her agreement with this colleague about the possibility of finding positive things in daily life by saying:

> I agree. I found exactly the same. I think it made me realise how much I usually focus on the negative things and not necessarily think about what's gone right or what's gone well. So having to sit and think about it. (Susan, lines 22-24)

One PhD student had the same experience in terms of bringing negatives to mind, but eventually she observed the glass half full. This is evident in the following excerpt:

> When I was writing it I definitely had loads of bad things jump into my head first, just like a whole list. I could write down all the bad things that have happened. No, no, I'm writing down the good things. Okay, good things? Oh yeah, there are some good things. (Catherine, lines 88-91)

According to Seligman (1990) individuals used their explanatory style (optimistic versus pessimistic) to attribute the events positively or negatively with expression of the glass half full/half empty (Szalma, 2009). This participant appraised her day more positive rather than negative.

Sub-theme 2-Identifying positives however big/small.

The positive psychology intervention (the three good things) that was used in the current study provides an opportunity for the academics to identify the elements that make them happy and for which they can be thankful. Regardless of having a busy week an associate lecturer was happy to find positives. This academic mentioned her experience as follows:

> Quite a lot of the negative stuff during the week was to do with an activity I was undertaking, but then when I was finding good things like I actually thought I have done something and I didn't know whether it was going to come off or not. I thought it might be a bit hit and miss whether I had enough to make something out of it and when I got it home and looked at it. I was quite pleased with it. So that was one of my good things that something I didn't think had come off actually had come off quite well. So it was quite specific to that, so it didn't seem too false at all actually, no, because I was quite pleased with myself at the time when I wrote it. I just looked at what I had done and thought actually I'm quite pleased with that. Yes, I'm pleased with that. (Lucy, lines 102-112)

A PhD student mentioned how the basic and small things, for example shopping or social activities like meeting a friend can make her happy. She identified them as the positive things in her daily life. This academic simply summarised what was valued thus:

Well, is that really a good thing? Shall I put that? Is that a bit pathetic but then sort of after the first day it just seemed to become really easy then. It was like Oh yeah, I went out for a coffee and did a bit of Christmas shopping and got some work done. Because those are the kinds of things that I put. They're nothing major, they're just they all seem to be really little things, but.... (Kate, lines 96-101)

Although individuals are exposed to some unpleasant things in their lives, this suggests that thinking positively can encourage them to identify positive things and help them to reduce the tensions associated with difficulties cognitively. These positives can be even small things in terms of importance, but can make people happy and pleased as mentioned in the above quote.

Theme 2: The positive consequences of the three good things

There was a very strong agreement throughout the entire transcript that participants were happier for having done the three good things exercise. They mentioned that the exercise has affected their perspective of the events and how they think about their daily chores, in particular at work and home. Three sub-themes were identified:

Sub-theme 1-Changing attitudes.

The majority of participants in the study reported that the three good things exercise were useful and practical for them. Research has shown that talking about positive experiences in our conversation with others can improve our individual personal interaction, as people like to hear positives rather than negatives.

One of the PhD students expressed her ideas in the following excerpt:

Yeah. Yeah, I think even though it's only been a few days since I stopped doing the diary I can honestly say that I do think I'm consciously doing that sometimes. Even to the point when my daughter comes home from work now instead of saying "How was your day?" I do actually say "What was good about your day?" or "Was there anything good about today?" Whereas before I would have said "How was your day?" and then she probably would have started telling me about something negative or something bad. I just ask her now "Did anything good happen today? (Susan, lines 163-169)

Another academic thought that the intervention was helpful for her in spite of the remaining difficulties in her week. It helped her to keep positive regardless of difficulties. She suggested that supporting and helping others made her feel good and happy. This academic used a British proverb to express her experience by saying:

> I think what it helped me to do was to see I think most of what I was writing about were things which had been quite difficult-either quite stressful or pressuring or things which perhaps hadn't gone as well as I'd wanted them to do in one sense-but I was almost seeing the silver lining round the cloud and I think that's how most of mine ended up being. "This has been stressful, but this is what I got out of it." I think that's what I ended up doing with mine rather than purely positive things. So I suppose the peer support thing that people are talking about that's quite interesting. (Rachel, lines 128-144)

Sub-them 2-Stop and think.

Individuals frequently make a list of things that should be done, and after finishing the task tick them off, thinking about what is the next task and looking for another thing in their list. It sometimes becomes like a never-ending chain, but we need to look back and see what our achievements are. It is really important to have a sense of appreciation for ourselves, or others that help us to achieve our goals. We can also reward ourselves physically or mentally and be aware that what we have done can make us very happy and healthy. Therefore, the individuals who just make a list and work non-stop to finish their tasks without awareness of their achievement may never experience the same levels of satisfaction with life and perhaps experience more stress.

One of the academic said how individuals simply do not pay attention to things that work well for them. She gave a different impression of the event. Her example was a common indication of appraisal when things go wrong at work. Individuals who focused on things that went wrong made themselves more stressed. She expressed her ideas with a simple example related to the office environment:

> So you could have a lot of frustration because your printer's not working, for example, and that could be a big negative. However, we don't think "My day's going quite well because I've pressed send, it's gone to the printer, it's come straight out and there it is in my hand." You don't think about that. You take it for granted almost. (Rachel, lines 155-158)

Another interviewee came across as very satisfied with her experience of focusing on small things that made her joyful as follows:

> Yeah. So it really made me think about that-that even tiny things can feel huge when they're not going well, but when I'm wanting something to go well it needs to be big before I can see as it as more positive or going well. (Susan, lines 159-161)

Sub-theme 3-Positive influences of the exercise.

In the opinion of many participants the three good things exercise have affected their cognitions very quickly in terms of thinking positively or finding good things that they never thought about before. One academic reported that:

> It's amazing how quick I changed my mind though from thinking "I really don't think this is going to work." No good things ever happen and it went from that and then as soon as I started doing it was like "Oh well, look at that! From thinking "What's the point?" to "Oh, this is really good. I'm going to keep doing this." (Kate, lines 174-179)

It became apparent from another academic's experience how the positive psychology intervention influenced the way she was thinking about events as follows: "I consciously found myself thinking more positively at the end of each day after doing it I see it differently now and think it's really got a value." (Susan, lines 251-252). It was recognised that the three good things exercise was useful and enjoyable for all academics. They got used to this exercise very quickly, although when they started it was slightly challenging and hard to identify positive things.

Theme 3: The negative aspects of practicing the three good things

This theme explored how all participants experienced some difficulties during the five days of the positive psychology intervention. It is worth mentioning that this exercise is an American intervention that can be different in every culture in terms of its effectiveness. The American cultural idiom *motherhood and apple pie* indicates some values which are sometimes ascribed to activities such as the intervention used here, and not everyone finds these American approaches attractive. The way that academics identified that they had some problems getting into a routine to do the three good things exercise, and the difficulties initially experienced suggested that this was a different

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way of thinking for them. This type of exercise was fairly new for most of the participants, and perhaps at some points this exercise was stressful to begin with. There was an agreement among all participants that they had two issues related to this exercise. The first issue was related to finding a third good thing, and the second one was related to the reasons why good things happened to them. As a quick reminder in this exercise participants were asked to write the three good things that happened for them each day and why each went well.

This theme is comprised of two sub-themes extra burdens and the hard elements of the exercise.

Sub-theme 1-Extra burdens.

As mentioned in the method section of the current chapter all the participants were female. It is likely that they may also have some responsibilities at home in relation to family. Participation in this study could add another load to their tasks. However, their priority was finishing their personal tasks and then doing the positive psychology intervention.

One participant explained the negative aspect of the exercise by honestly saying:

> I have to admit that there were a couple of days because we had a lot going on at home that week when I thought "I've not done my diary," so I had to back-track and try and remember from the day before. I think because it was only the next day it wasn't too bad, but I did think "Oh, I've not done it." So I felt a little bit… So that was a difficulty for me that I'll come clean about-that there was one day when I didn't do it and had to do it retrospectively and then I had to do two days together. So I had to cover six things across two days. (Rachel, lines 183-189)

Another participant said:

> Yeah, I've done that as well. I think, if I'm honest, when you'd first sent me the diary because at that time I'd got quite a lot going on and I was preparing for a presentation and I just felt snowed under I thought "Oh, I haven't got time to do that. How can I? I haven't possibly got time for one more thing," when actually it only takes a few minutes, but it felt like just something else to fit in and a really big deal. But when I actually sat down to do it I realised that it only takes

a few minutes, but yeah, I had to do. I did a day or two retrospectively as well. (Susan, lines 190-197)

The other academic described with honesty how she did forget to fill in her diary just one day. She also mentioned the reason in the following excerpt:

> I just missed Friday and that was again to do with the X because I had an editing day on Friday and I get very single-minded when I'm editing and I think of do it. You have to otherwise you can... It's very much like writing as well. If you break your concentration you have to back-track so far to get yourself back to where you were and it's very annoying. So I just did a solid day of blinking editing on Friday and then just completely forgot about the diary. "Oh, I didn't do Friday!" (Lucy, lines 199-203)

To protect the anonymity of the participant the letter X was replaced for an activity that the participant was involved in while performing the positive psychology intervention.

Sub-theme 2-The hard elements of the exercise.

It appeared from the majority of academics' considerations that it was easy to find two good things but they had some trouble finding a third good thing.

It can be concluded from the following excerpt that it was not an easy task in some points for one of the participants and perhaps stressful for her to find a third positive thing by saying: "There were a couple of days when I struggled to find a third positive thing." (Susan, line 25)

There was a general consensus among participants that finding a third good thing was hard as observed in the following excerpt: "Me too. Friday particularly, I don't know why, and it was Friday as well and I was thinking "What's the third thing, good thing that happened?" (Lucy, lines 26-27). A senior lecturer had the same feeling for finding a third good thing: "There were some days when I was scratching around a little bit to get a third." (Rachel, line 35)

Similarly another academic struggled to find a third one: "Some days it was easy, but then there were a couple where it was a little bit stressful. Two was easy, but it's the third one, finding that third good things." (Kate, lines 71-72)

One of the participants contributed in this part of discussion and mentioned that she had problems explain why the event went well:

> I think I struggled with the reason initially because I'd sort of written something down that was a positive and then I thought "Well, it sort of explains itself really" within the reasons, but I think I got the hang of the reason a bit more. When I started to write down reasons I thought "Yeah, actually there is an underlying thing that makes this a good thing and that's what the reason needs to be." So I worked it out quite quickly, but initially when I first looked at it I thought "Well, it says what it is. What would the reason be?"*(Lucy, lines 231-237)*

Similarly an associate lecturer explained her difficulty identifying the reasons for good things happening in her day:

> The reason part... the top part for me, the first part, tended to be the practical thing that had happened or whatever had happened, but the reason tended to be more about a personal sense of growth or emotional type thing and how it made me feel probably. Also some of it was a practical, pragmatic reason, but a lot of it tended to be a bit more about how I felt about having achieved it. That's what I think I put in there. (Catherine, lines 244-248)

As acknowledged from the academics' report, the specific negative or hard parts of this exercise were; identifying the third good thing, and determining the reason why good things happened for them. Fortunately it appeared from the academics discussion that by thinking positively they solved these difficulties while making their lists.

Theme 4: Furtherance of the exercise

This theme explored how academics felt about continuing the three good things exercise in the future. Research has shown that the three good things exercise can increase well-being and reduce depression for over six months (Seligman et al., 2005). There were two schools of thoughts around carrying on the three good things exercise as a regular task in the future. In general, all participants were happy to continue this exercise but one out of five believed that it could make her stressed and cause negative emotion as a regular task, but that it would be a useful exercise when she was having a hard time. This theme consisted of two sub-themes: positive attitudes towards the three good things, and doing the exercise in stressful times.

Sub-theme 1-Positive attitudes towards the three good things.

Some academics reported that they would benefit from doing this exercise in the future. One PhD student was enthusiastic to continue the three good things regularly as she thought it was fairly easy to get into:

> I think as well I'll carry on doing it because I think I've done similar things like this in the past, but I've not done them on a regular basis. I tend to sort of maybe for so long reflect back and think "Okay."(Catherine, lines 261-263)

Sub-theme2-Doing the exercise in stressful times.

Some people think prevention is better than treatment but others do not. One of the academics was not sure that she would continue the three good things exercise in the future, or perhaps found it annoying to continue the exercise regularly. She expressed her feelings in the following excerpt:

> I don't know. I mean I haven't done it since. Because I finished mine on Thursday because for some reason I started the Friday before, but I mean I haven't done. I mean I don't see why I couldn't do, but I know that I'd end up forgetting and then get out of the habit, but I think it would be something that if I felt that I was getting a bit bogged down or under stress at work I could think "Right, what's worked from before? The writing down the happy things sort of thing at the end of the day." So I think maybe it might be something that I would do as and when I felt things were grinding me down a bit. I don't know whether I'd be able to stick to it if I was saying "Right, it's got to be every day," and I think as soon as I stop sticking to it I don't know, it might become an irritant rather than a positive thing. (Rachel, lines 289-298)

Another academic similarly expressed her idea by saying: "I 'm not writing stuff down anymore, but I am thinking about what's good even today when nothing's gone right." (Lucy, lines 279-280)

Overall, the three good things exercise was interesting and acceptable for academics as it was quite a new approach for them. It also was useful and relaxing to think about positive events of their day.

Pre-to post-assessments and two week follow-up measures

The intervention study was applied to examine the impact of a positive psychology intervention (the Three Good Things) on subjective well-being and general health among academics. Although the numbers are small the data was explored using SPSS for Windows version 20 to explore if any changes as a result of the intervention were apparent.

Descriptive statistics

The individuals score of stress, gratitude, satisfaction with life, positive affect, negative affect, and mental health (GHQ) are presented in Table 6.3. It is noticeable from the Table 6.3 that the individual scores of stress and negative affect for most of the participants decreased across the time. Conversely, the individual scores of gratitude, satisfaction with life, positive affect, and mental health increased for most of the participants from pre-assessment (Time 1) to post-assessment (Time 2) and at two week follow up (Time 3). The graph charts are also added here to show clearly the changes that happened for each participant's scores at three time points, as follows from Tables 6.4 to 6.8.

Table 6. 3 Individuals scores of stress, gratitude, subjective well-being, and mental health at three times point among academic (N=5).

Participant	Stress	Gratitude	SWL	PA	NA	GH
Participant 1						
Time 1	19	35	22	28	23	24
Time 2	23	36	28	31	24	28
Time 3	22	36	30	32	19	36
Participant 2						
Time1	18	40	25	16	32	38
Time2	15	41	28	43	17	37
Time3	10	39	32	44	16	39
Participant 3						
Time 1	22	32	21	26	28	35
Time 2	20	34	22	26	35	34
Time 3	19	33	24	26	25	33
Participant 4						
Time 1	16	38	28	21	31	40
Time 2	16	35	30	36	14	36
Time 3	11	41	30	36	13	41
Participant 5						
Time 1	15	37	28	19	33	38
Time 2	7	40	30	40	13	38
Time 3	6	41	31	38	15	41

Note. Pre-assessment= Time 1, Post-assessment= Time 2, Follow-up= Time 3.Satisfaction With Life (SWL), Positive affect (PA), Negative affect (NA), and Mental Health (GHQ).

Table 6. 4 Individual scores of all the study variables for participant 1.
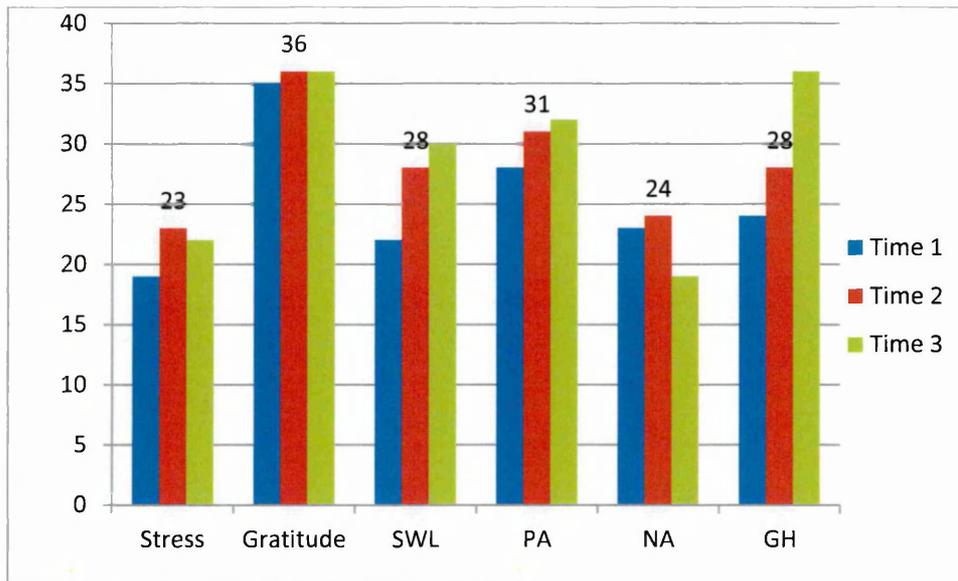
Note. Satisfaction with life (SWL), Positive affect (PA), Negative affect (NA), and Mental Health (GHQ).

Table 6. 5 Individual scores of all the study variables for participant 2.
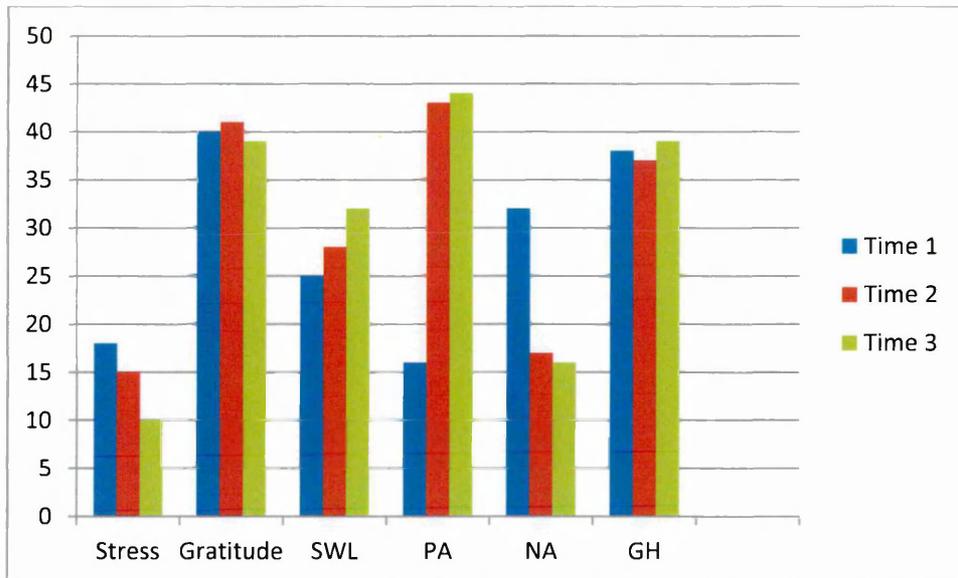
Note. Satisfaction with life (SWL), Positive affect (PA), Negative affect (NA), and Mental Health (GHQ)

Table 6. 6 Individual scores of all the study variables for participant 3.
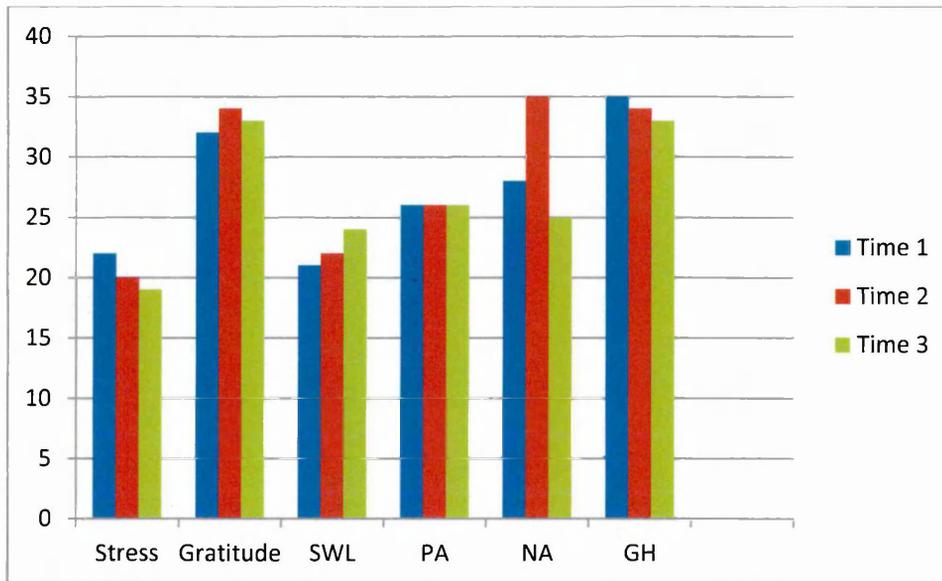
Note. Satisfaction with life (SWL), Positive affect (PA), Negative affect (NA), and Mental Health (GHQ).

Table 6. 7 Individual scores of all the study variables for participant 4
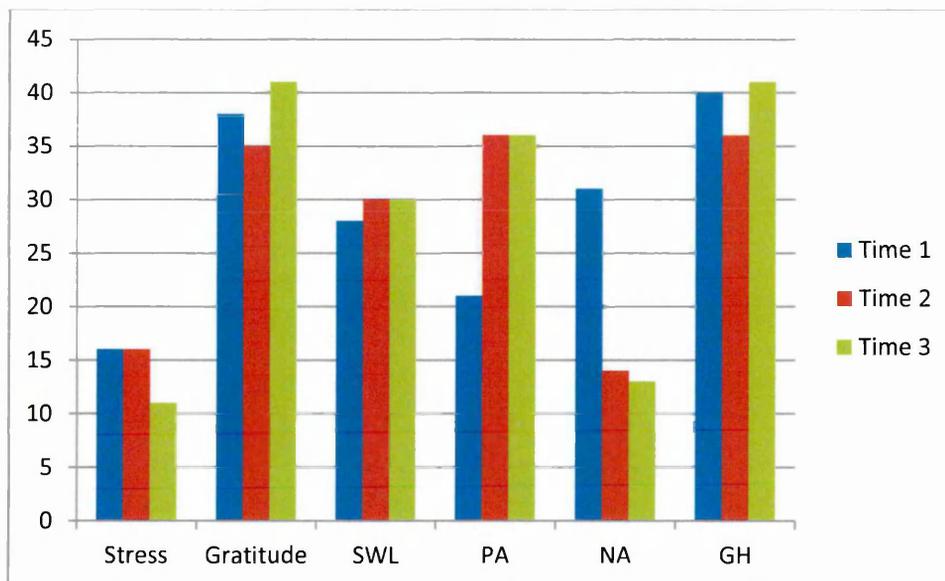
Note. Satisfaction with life (SWL), Positive affect (PA), Negative affect (NA), and Mental Health (GHQ).

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Table 6. 8 Individual scores of all the study variables for participant 5
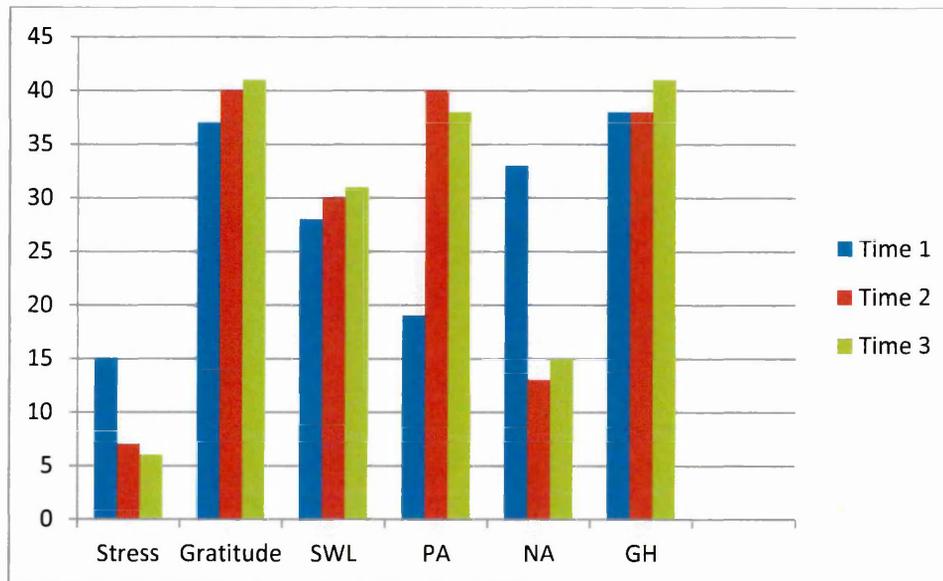
Bar chart showing individual scores for participant 5 across Stress, Gratitude, SWL, PA, NA, and GH at Time 1, Time 2, and Time 3.

Note. Satisfaction with life (SWL), Positive affect (PA), Negative affect (NA), and Mental Health (GHQ).

Table 6.9 provides the group means and standard deviations for all five participants. As can be seen from this table the mean scores of perceived stress and negative affect decreased after the intervention, whereas the mean scores of satisfaction with life, positive affect, mental health, and gratitude increased after the intervention. Inferential statistics will now be carried out to determine if these increases and decreases are significant.

Table 6. 9 Means and standard deviations for pre-intervention, post-intervention, and follow up measures of perceived stress, subjective well-being, mental health, and gratitude among academics (N=5).

Variables	Mean	SD
Perceived Stress		
Pre-intervention	18.00	2.74
Post-intervention	16.20	9.06
Follow-up	13.60	3.46
Satisfaction With Life		
Pre-intervention	24.80	3.27
Post-intervention	27.60	3.29
Follow-up	29.40	3.13
Positive Affect		
Pre-intervention	22.00	4.95
Post-intervention	35.20	6.83
Follow-up	35.20	6.72
Negative Affect		
Pre-intervention	29.40	4.03
Post-intervention	20.60	9.13
Follow-up	17.60	4.67
GHQ		
Pre-intervention	34.80	6.42
Post-intervention	34.80	3.96
Follow-up	37.40	2.88
Gratitude		
Pre-intervention	36.40	3.05
Post-intervention	37.20	3.11
Follow-up	37.40	2.88

Note.$*p < .05$. Pre-intervention= Time 1, Post-intervention=Time 2, Follow-up=Time 3. Mental health (GHQ).

Non-parametric analysis and results

The data in the current study did not meet the stringent assumptions of parametric statistics. The small sample size of the current study violated the assumptions for using parametric tests. An alternative non-parametric test was therefore selected (Pallent, 2005). The Friedman test is an appropriate non-parametric alternative statistic that is

equivalent to the one way repeated measure analysis of variance (ANOVA) in parametric tests (Pallent, 2005).

The Friedman test was applied to see whether there are differences between the measures of perceived stress, satisfaction with life, positive affect, negative affect, mental health (GHQ), and gratitude at the three times points. The results indicated there was no significant difference over time for stress: X^2 (2, N = 5) = 5.16, p =.08. The Friedman test also revealed that there is no significant difference for negative affect: X^2 (2, N = 5) = 5.20, p = .07, and for mental health: X^2 (2, N = 5) = 2.84, p = .24. The results also showed no significant differences for gratitude over time: X^2 (2, N = 5) = 2.84, p = .24.

The results indicated that there is a significant increase in the levels of satisfaction with life X^2 (2, N = 5) = 9.58, p = .008. The Friedman test also revealed statistically significant increasing differences in the levels of positive affect in pre-assessment, post-assessment, and the two week follow-up: X^2 (2, N = 5) = 6.53, p = .04.

However, the Friedman test is not able to show where the differences lie, hence a post-hoc analysis was run to determine where the specific differences lie using the Wlicoxon signed-rank test. The Wlicoxon test is equivalent to the t-test in parametric statistics. There were statistically significant differences in the levels of satisfaction with life from Time 1 to Time 2 (Z = 2.032, p = .04), and from Time 1 to Time 3 (Z = 2.032, p = .04) but no significant difference was found from Time 2 to Time 3 (Z = 1.84, p = .07). No significant differences were found in the levels of positive affect from Time 1 to Time 2 (Z = 1.826, p = .07), or from Time 1 to Time 3 (Z = 1.826, p = .07), or from Time 2 to Time 3 (Z = .000, p = 1.000).

6.6 Discussion

This main aim of the current study was to examine how academics evaluate the experience of undertaking a positive psychology self-help intervention designed to increase their well-being. In the course of this, events occurring in the normal working day that were evaluated positively by academics were identified. The results will be discussed in the order they were presented in the results section.

Content analysis of research diaries

The content analysis of the Three Good Things exercise revealed five themes. The theme of research activities indicated the importance of funding, presenting at a

conference, and data collection and analysis as the factors that make academics pleased and happy at work. The previous research showed that funding pressure was identified as the most significant source of stress among British and Australian academics (Kinman et al., 2003, 2008; Winefield, 2001). The current research programme in a qualitative study of stress and coping in academic staff (Study 2) found that for academics (in particular those who are involved with research projects) the lack of sufficient funding was considered as a source of stress at work. From the findings of Study 2, the lack of sufficient funding especially to do research was a major source of stress and identified as a negative aspect of the academic role (see results of Chapter 5). Presenting at a conference is another good experience regarded as a representative factor for research activity. The results of Study 2 showed that the most satisfying part of research for academics is when their paper is accepted for a conference or publication. It makes them very pleased and provides a high level of satisfaction at work (see Chapter 5 for more detail). However, some participants in the current study were final year PhD students, meaning that finishing data collection was very important for them.

The theme of features of job satisfaction refers to the area of the academics job that is attractive for them and makes them happy in spite experiencing of many stressors at work. Research indicates that relationships with colleagues is the predictor of job satisfaction among academics (Lacy & Sheehan, 1997).The findings of Rhodes et al. (2007) in a mixed methods study revealed that relationships with students was the most satisfactory part of being an academic (see Chapter 5), both of which were identified as being important in this study.

The theme of social support at work demonstrates how much supporting colleagues, spending time with them, and helping others at work can make academics happy. Social support has been shown in previous research to be associated with coping strategies and reducing stress. For example Shen (2008) found that Chinese primary and secondary teachers with high levels of social support cope better with stress at work although in a quantitative research study. Receiving or delivering social support at work as a positive experience in difficult times, and in happy times is valuable among academics.

The theme of features of happiness also identified positive experiences related to spending time outside of work. Activities like meeting friends, going to the gym, watching movies, shopping, dining out with husband, and buying a gift for a friend or partner, all brought happiness to academics.

In summary, the more significant information extracted from research diaries were related to academics' jobs, and indicated that academics are generally happy being in the higher education sector. Furthermore, colleagues, receiving funding for a research, presenting at a conference, data collection and analysis, and family and friends are identified as the positive events from academics' perspectives.

The evaluations of experiences the positive psychology intervention: A focus group discussion

The content analysis of the focus group discussion to evaluate a positive psychology intervention (the three good things exercise) identified four principal themes. The theme of identifying positives when things are hectic indicates that the three good things exercise helped academics to find positives in a day when their work did not go as well as expected. Therefore, the positive psychology intervention was useful and practical in assisting participants to find positives no matter how small or big in terms of importance and this made them happier.

The theme of the positive consequences of the three good things represents how this exercise changed academics' awareness/perception of the events. Initially it was easy for them to write about their negative experiences of a day, but the exercise helped them to stop and think about how to find positive things in their day. Seligman, Rashid and Peterson (2005) found that the three good things exercise can help people to finish their day by shifting from the negative aspect of event to a positive and enjoyable memory of the event and that seems to have occurred with this group.

The theme of the negative aspects of practicing the three good things specifies some problems that academics experienced during the five day positive psychology intervention. For example finding a third good thing has been identified as a hard part of this task for all academics. The intervention was quite new for all the participants and it was only a five-day exercise; it can therefore be argued that, if the length of the intervention was longer they could possibly cope better and improved at doing it. Academics also found that identifying the reasons behind good events was problematic. It could be hard to attribute the good things to internal or external sources. These difficulties might be related to cultural differences as the three good things exercise is very American with its focus on positivity, very representative of a culture that tells you, "Have a nice day" all the time and that this enforced positivity might seem a little strange to British audience as indeed it did. Some of the participants found it difficult to

identify more than one positive thing and mentioned that it was not what they normally did. However, the group did adjust to the demands of the exercise quite quickly suggesting that it was not a big issue.

The theme of furtherance of the exercise revealed that some academics are keen to continue the exercise in the future as it helped them to think positively and made them aware that there are some positive things in their daily lives that needed to be identified. Similarly, Sheldon and Lyubomirsky (2007) found participants' self-reports of continued practice of positive activities after the intervention period can predict sustained increases in positive affect at a two week follow-up (Layous & Lyubomirsky, 2011). Conversely some academics thought it was a good exercise for them but they preferred to do when they need it, for example when they feel stressed, not as a regular exercise. Research suggests that increasing positive emotions during a stressful time is regarded as an adaptive coping strategy (Folkman & Moskowitz, 2000, 2004; cited in Layous & Lyubomirsky, 2011). The participants were not asked to continue their exercise after the post assessment. It is therefore not clear whether any of them continued the exercise between post-assessment and the two week follow-up. However, as the sample size is quite small, it is not significant whether they continue their exercise or not.

Findings from pre-to post-assessments and follow-up measuring (quantitative method)

Previous research suggests that the three good things exercise may increase well-being (Seligman et al., 2005). The results showed that the satisfaction with life as a cognitive measure of subjective well-being significantly increased from pre-to post-assessments and also from pre-assessment to two week follow up. However the number of participants is too small to draw any firm conclusions. As discussed in Chapter 2, Diener et al. (1985) suggested that satisfaction with life is a positive cognitive evaluation of individuals' life and an important indicator of subjective well-being. Chan (2009) found among 228 Chinese teachers in Hong Kong that satisfaction with life was associated with high positive emotions and less negative emotions. The results also showed that there were no significant differences in the measures of stress, positive affect, negative affect, mental health, and gratitude at the three time points. However, the results of the descriptive statistics showed that the mean scores of the perceived stress have decreased over time for all the participants.

The three good things exercise did slightly help academics to increase their satisfaction with life as one of the indicator of subjective well-being. The exercise did not impact on the levels of stress, gratitude, positive and negative affect, and mental health among academics. With regard to using this exercise for the first time among academics in a limited sample in this topic area reporting these results provides a start for more investigation for future research.

Limitations

There are some limitations of the current study. One of the most important limitations was the small sample size for the quantitative element, which was not quite large for using parametric statistics; thus a non-parametric technique was used as an alternative option. Meanwhile the sample size for the qualitative section of the positive psychology intervention and the focus group was adequate. Wilkinson and Smith (2003) suggested that the ideal sample size for a focus group discussion can be between four and eight participants.

Another limitation was the fact that the researcher had no control over the participants to see whether they actually did the exercise according to the instructions given; for example, identifying the three good things each day not missing one day and then the next day finding six good things and six reasons. There was evidence that this did happen. Some participants admitted that they were not able to do the exercise each day based on the given instruction as they were busy with other tasks at home. The next day therefore they had not only their daily task, but also they needed to remember three positive things that happened the day before, making six positive things, which was not quite as easy for them. Finally, all the participants that took part in this study were from the psychology department, thus they were aware of the psychological research although none of them had experience in positive psychology perspective. This may have affected the results of the quantitative scores, as they might already know the scale that was used in the questionnaire.

The last potential limitation of the quantitative part of current study was the change in survey methodology from online survey at Time 1 to paper-pencil survey at Time 2 and online survey at Time 3. It would have been more desirable in this study to use the same method for data collection at the three time points. However, recent studies reported the equality of paper-pencil questionnaire and online survey (Boyd, Bakker, Pignatas,

Winefield, Gillespie, & Stough, 2011; Cole, Bedian, & Field, 2006; De Beuckelaer & Lievens, 2009).

Conclusion

Reports by the academics through a research diary clearly revealed that having a good relationship with colleagues, friends and family, attending at a conference, and data collection and analysis are the factors that can make academics happy and were identified as the positive experiences. The findings of the focus group discussion indicated that academics were happy doing the three good things exercise. It encouraged them to think more about positive events rather than negative. The exercise gave them more insight about the positive things occurring even in situations that were not as perfect as they might wish. However, all of participants found finding a third good thing was the hardest part of this task. Many of them also believed that finding a reason to explain why the events were good for them was hard. The purpose of this element is to get participants to reflect more deeply on the positive event and it certainly achieved this and it did get easier with practice. These difficulties could be attributed to the nature of the positive psychology intervention, in that it is originally an American intervention, although British academics adjusted well to completing the task. Meanwhile, the positive emphasis did initially appear to be slightly problematic for most of the participants. In terms of the quantitative section the results showed that the levels of satisfaction with life significantly increased over time by using non-parametric statistics.

Chapter 7-General Discussion

7.1 Introduction

The general aim of this research programme was to examine why some academics in a post-92 teaching-focused university cope with stress at work better than other academics by examining relevant character strengths and their association with stress, well-being and mental health. To achieve this aim a positive psychology perspective was applied with emphasis on measuring perceived stress, character strengths (hope, optimism, gratitude, and self-efficacy), coping styles, work coping variables (work locus of control and sense of coherence), subjective well-being, and mental health. The rationale for choosing this approach was because it allows a focus on the characteristics of individuals who cope well with stressful life events and maintain their well-being. In this way, positive psychology provides a complementary approach to traditional psychology that tends to focus more on the negative aspects of stress and the individuals who cope less well with stressful life events (Cuijpers et al., 2008; Elo et al., 2008; Folkman & Moskowitz, 2000; Mitchell et al., 2010).

The transactional model of stress and coping provided the framework for appraising the process of coping with stressful events in this thesis (Folkman et al., 1986). The reason that the transactional model of stress was chosen for this research programme was due to the fact that it is currently the most comprehensive model of stress, and furthermore, is the one most frequently used in the research literature, thus allowing comparisons with other studies. The transactional model of stress also allows a better description of the variety of responses that individuals show when they are exposed to stress and how they cope with it (Miller & McCool, 2003).

This research programme consisted of three studies. The main study used an online survey to investigate why some academics cope better than others with stress at work and thus preserve their well-being and mental health. This was followed by an online interview exploring the nature of stress in academia and coping strategies adopted. For the final study a small group of academics undertook a positive psychology intervention, the Three Good Things exercise, and their views on the intervention and its value were collected via a focus group. Overall, there were nine research questions and these will be addressed for each study in turn. The results of each study will be summarised and discussed.

7.2 Evaluations of quantitative study of stress, coping, well-being, mental health, and their association with character strengths

For this study the six research questions were as follows:

1. What is the relationship between stress, subjective well-being, and mental health?
2. What is the relationship between character strengths and perceived stress levels?
3. What is the relationship between character strengths and subjective well-being as defined by satisfaction with life, positive and negative affect?
4. What is the relationship between character strengths and mental health?
5. What is the relationship between work locus of control and sense of coherence to perceived stress?
6. What is the relationship between coping styles and perceived stress at work?

Before the responses to the research questions are presented the results of examining the various demographic variables measures are discussed.

Effect of demographic variables

Gender differences for all the study variables were investigated. No gender differences were found in relation to perceived stress levels; this was also found in previous research (e.g., Kinman, 1998; Gmelch & Burns, 1994). However, contrary to these findings, a more recent study by Archibong et al. (2010) found that female academics experienced more stress at work. However, the number of men responding to the present survey was lower than that of women and future research could explore gender differences further with a more equal gender balance.

Full-time versus part-time employment was investigated to find out whether occupational status can affect the levels of stress at work. The results found that there were no statistically significant differences between full-time and part-time academics with regard to levels of perceived stress. However, previous study found that part-time academics had difficulties in accepting and coping with management policies at university (Barnes & O'Hara, 1999).

Finally, the relationships between job status (junior academics versus senior academics) and stress was also examined. There were no statistically significant differences between junior and senior academics in their levels of perceived stress. Previous research has consistently shown that the level of stress is greater in senior staff

compared with junior staff (e.g., Abousierie, 1996; Gmelch & Burns, 1994; Winefield & Jarrett, 2001). These studies are quite old and the academic environment has changed significantly in recent years with the increases in student numbers and resultant increases in the associated administrative burden. This may well have increased the stress levels of junior staff. In a research review, Jacobs et al. (2010) reported that female academics in senior positions are more stressed compared to their male colleagues in similar positions. Other researchers have suggested that this could be related to lower pay, work demands, and workloads at work and home (e.g., Bond et al., 2004; Hogan et al., 2002; McInnis, 1996). These researchers mainly focused on the relationship between stress and physical and mental health (see Chapters 2 & 4). The numbers did not allow comparisons across specific roles to be made in this study. As there were no significant differences in the levels of stress, subjective well-being, and mental health in demographic variables, the data were analysed in one data set in Study 1.

Psychological strengths, coping style, and work coping variables

The character strengths of hope agency, hope pathway, optimism, gratitude, and self-efficacy were examined in Study 1, as research with other populations (e.g., students) reported these psychological strengths are associated with subjective well-being thus providing a rationale for using these character strengths for the first time in a study with British academics (Bandura, 1994; Emmons & McCullough, 2003; Park et al., 2004; Peterson et al., 2007; also see Chapter 2). The contributions of coping style and work coping variables (work locus of control and sense of coherence) with levels of stress were also assessed to try to determine why some academics cope better with stress at work than other academics and thus retain their well-being and mental health.

Research Question 1: What is the relationship between stress, subjective well-being and mental health?

The overall results of the quantitative study found that the levels of stress had a negative relationship with subjective well-being and mental health as expected. Academics with low levels of stress are therefore healthier than academics with higher levels of stress (see Chapter 4). Research has consistently shown that increasing levels of stress is a predictor of decreasing levels of psychological health and well-being among UK academics (Kinman, 1998, 2003, 2008) and this has not changed.

Research Questions 2, 3, and 4: What is the relationship between character strengths and perceived stress levels, subjective well-being, and mental health?

The character strength of gratitude was associated with low levels of stress and high levels of subjective well-being and mental health among academics. Gratitude was positively predictive of SWB and it was negatively associated with perceived stress at work. Academics that are more grateful are therefore healthier in terms of levels of SWB and mental health when compared with less grateful academics. A previous study supported this finding of gratitude as a predictor of well-being however it related to student samples (Froh et al., 2009). Moderator analysis indicated that gratitude was not found to be a significant moderator of the relationship between stress and subjective well-being and mental health.

It was also found that academics with high levels of self-efficacy experienced less stress at work, coped better with stress at work and preserved their well-being. Likewise, Scholz, et al. (2002) found that higher self-efficacy predicted higher well-being (see Chapters 2 & 4). The reason that self-efficacy was considered a psychological strength in this research programme was its influence on individuals' abilities to achieve their goals based on their personal beliefs (Bandura, 1994). However, self-efficacy is not included in the 24 character strengths introduced by Seligman and Peterson in 1995. This appears to be an important omission as previous research also reports that self-efficacy has a very influential effect on behaviour (Scholz et al., 2002). It therefore can be concluded that the character strengths of self-efficacy may help to explain why some academics cope better with stress at work and preserve their well-being. However, self-efficacy was not found to be a significant moderator of the relationship between stress and subjective well-being.

In Study 1 higher levels of hope agency was positively associated with greater satisfaction with life, and greater positive affect and negatively was associated with lower negative affect. Hope pathway was only negatively associated with SWL. Hope agency and hope pathway were not predicted mental health (GHQ). Hope agency and hope pathway did not moderate the relationship between stress and well-being and mental health (GHQ). Greater optimism was predicted to be associated with higher satisfaction with life and lower negative affect. The moderator variable of perceived stress * optimism was significant in predicting mental health (GHQ), indicating that

optimism had a buffering effect on stress. However, optimism did not moderate the relationship between stress and subjective well-being (SWL, PA, NA).

In previous research hope was a significant predictor of positive and negative affect. Individuals with higher hope showed more positive emotional improvement than lower hope individuals (Ciarrochi et al., 2007). Chang (1998) also reported that higher levels of hope were predictive of satisfaction of life with a sample of college students. The current research found the same results as did Chang (1998) in student samples. The significance of optimism for satisfaction with life has been supported in previous literature (Wong & Lim, 2009). Some previous research found that optimism predicted subjective well-being (Diener, 2000; also see Chapter 4).

Research Question 5: What is the relationship of work locus of control and sense of coherence to perceived stress?

Sense of coherence was a significant predictor of stress at work. Academics with high levels of sense of coherence experienced less stress at work in post-92 predominantly teaching-focused university. Kinman (2008) also found that academics with a high level of SoC experienced better psychological health and less stress at work compared with employees with lower levels of SoC. No relationship was found between work locus of control and perceived stress at work.

Research Question 6: What is the relationship between coping styles and perceived stress at work?

Coping styles as hypothesised were predictive of stress at work in Study 1. The research found that problem-focused coping was predictive of lower stress. Folkman (1997) also found that problem-focused coping led to problems being resolved thus altering potentially stressful situations. As a result, academics who used a problem focused coping style experienced less stress at work. This was supported in this thesis. Similarly, González Vigil (2005) found that the levels of stress were less among students who used problem-focused coping in stressful times. Dysfunctional coping was found to be predictive of increased perceived stress at work. Academics that used this coping strategy therefore experienced more stress at work. Dysfunctional coping as measured in this study consisted of self-distraction, self-blame, and substance use (Carver et al., 1989).

7.3 Evaluations of qualitative study of stress and coping

A qualitative study was conducted to examine how academics evaluate the positive and negative aspects of their job environment and how they cope with stress at work (see Chapter 5). There was one research question:

Research Question 1: What do academic staff perceive to be the positive and negative features of their academic working life and how do they cope with them?

Study 2 focused on academics' evaluations of their roles in terms of teaching, research/scholarship and administration and on how they cope with stress at work. The aim was to provide a clear understanding of their perception of academic work. The qualitative study used a structured online interview and identified six themes (see Table 7.1).

Table 7. 1 Principal themes and sub-themes.

Theme 1

Features of the academic jobs

Sub-theme 1-Relationships between lecturers and students

Sub-theme 2-Colleagues and students

Sub-theme 3-Flexibility of the academic role

Sub-theme 4-Increasing stress levels

Sub-theme 5-Suggested changes to reduce stress and improve the academic role

Theme 2

Coping with stress at work

Sub-theme 1-Positive coping techniques to deal with stress

Sub-theme 2-Negative coping strategies

Theme 3

Positive and negative feelings around research/scholarship

Sub-theme 1-Identity as an academic

Sub-theme 2-Rewarding aspects of scholarship

Sub-theme 3-Support for research/scholarship

Sub-theme 4-Features of job dissatisfaction

Sub-theme 5-Time pressures

Sub-theme 6-Funding

Theme 4

Administrative loads

Sub-theme 1-Burdens of administration

Sub-theme 2-Increasing administration

Sub-theme 3-Seeing positives in negatives

Theme 5

Task preferences in the academic role

Sub-theme 1-Teaching priority

Sub-theme 2-Teaching and research

Sub-theme 3-Balance of work roles

Theme 6

Thoughts around leaving the academic environment

Sub-theme 1-Job satisfaction

Sub-theme 2-Job dissatisfaction

From the data, it was clear that academics are exposed to many sources of stress at work and they use different types of coping strategies to deal with stress at work not all of which are healthy.

Sources of stress

Study 2 identified the main sources of stress in academic jobs, such as the increased number of students; heavy workloads and administrative burdens; poor management; funding cuts; job insecurity; and threats from the government to attack their pension scheme. The increasing numbers of students was a core stressful component in the academics' working life. Some earlier research supported these findings. For example, Kinman and Jones (2003) found increasing numbers of students; long working hours; lack of time; too much paper work; and lack of opportunity for scholarly work were the sources of stress among UK academics. Similarly growing bodies of research in Australia, USA, and New Zealand support the findings from Study 2. The evidence suggests that academics are under pressure due to the increase in the number of students, heavy workloads, poor management, and funding cuts that all add to the feelings of being more stressed at work (Adams, 1998; Akerlind, 2005; Gillespie et al., 2001; Leveson, 2004; Winefield, 2000; Tytherleigh et al., 2005).

The qualitative study also found that difficulty obtaining research funding was another stressor for academics, particularly for those academics who are undertaking research. Previous research in the UK and Australia supported these findings (Jacob et al., 2007; Kinman & Jones, 2008; Tytherleigh et al., 2005; Winefield et al., 2003).

Study 2 showed that heavy workloads and administrative burdens caused stress at work among academics. This was supported by previous research (Kinman & Jones, 2003, 2008; Oshagbemi, 1998, 2000; Winefield, 2001; see Chapters 2 & 5). Study 2 also identified some challenges in the higher education sector like job insecurity as a source of stress among academics. The lack of job security in academics and in particular for employees on temporary contracts increased the levels of stress at work. Similarly, Lowe's (1994) findings supported the results of Study 2 by reporting that academics with temporary contracts did not receive the same benefits and welfare as the permanent employees did (Bassett, 1998). Previous research reported that job insecurity was identified as the highest stressor among higher education staff (Tytherleigh et al., 2005). It also identified that employment in UK universities became less secure between 1998 and 2004 (Kinman et al., 2006). Finally, the qualitative study found that the UK

government proposal to attack the pension scheme was a stressor which caused academics to worry about their future. As this is a relatively new development, it has not previously been identified as an issue.

How academics coped with stress at work?

Several strategies were identified in Study 2 that showed how academics coped with stress at work. Academics acknowledged support from colleagues and time management as positive coping strategies. Similarly previous research has found that support from colleagues and interaction with them can lead to reduce stress among academics (Oshagbemi, 1998, 2000). Also, Kearns and Gardiner (2007) reported that managing time effectively helped academics to reduce their stress at work and increased their job satisfaction. This was also found in the academics in the current research. By using time management as a coping strategy, prioritising their tasks and even working in the evenings and weekends, academics therefore decreased the levels of stress at work and coped positively. This manner of working may impact on their family relationships but that impact was not examined in this study. Future research could usefully examine the work/life balance of academics and how this impacts on their relationships.

A few academics used negative coping strategies to deal with stress at work. For example some used medication, while others blamed themselves for not finishing their tasks on time as they had expected to. These negative coping strategies may decrease stress for the short term, but they can damage health and well-being in the long term. There is no published qualitative study in the research literature that discusses the use of negative coping strategies to decrease the levels of stress among academics. Using negative coping strategies not only fails to reduce stress, but it can also result in poorer health and well-being especially longer term.

How academics evaluated their work?

The qualitative study found that academics had positive and negative views of their work. There was a consensus amongst many participants that they were happy being academics particularly due to their teaching and their interactions with students. Previous research supported the results that teaching and dealing with students are the most valued aspects of academics' jobs (Rhodes et al., 2007). However, from the academics' perspective, the aspects of the job that made them most satisfied after

teaching were research and scholarship. Akerlind (2005) found that academics were enthusiastic about doing research, as they believed that job promotions and job security could be achieved through research activity. Administration work was identified as the least valuable and the most negative aspect of the academics' role in Study 2. This may affect job satisfaction among academics. Previous research found academics in higher education were not satisfied with the amount of administration that was part of their role (Oshagbemi, 1998, 2000).

Finally, the qualitative study found that the majority of academics are happy to stay in the higher education sector although a few plan to leave were they to be given a better job offer. They identified that the increasing number of students, administrations loads, low salary, job insecurity, and a non-respectful environment were factors that forced them to think about leaving the sector. Similarly, previous research has consistently shown that some academics preferred to leave the academic environment because of low salaries, heavy workloads, poor management, less promotion, and increased bureaucracy (Kinman et al., 2006; see Chapter 2). Academics identifying an environment where they are not respected is a new finding. This may relate to widening participation and/or the general growth in student numbers.

7.4 Academics' assessment of the value of positive psychology intervention

Study 3 was a qualitative study examining how academics felt about the process of undertaking the Three Good Things intervention. This was done via a focus group discussion after the positive psychology intervention had been completed. The aim of the positive psychology intervention is to increase well-being but due to low numbers of participants, a systematic evaluation of this aspect was not possible. The intervention required participants to complete diaries recording three daily positive events and these were analysed to identify what constituted positive experiences for academics. Thematic analysis was used to interpret the data from the diaries and the focus group discussion (see Chapter 6). One research question was relevant in this study.

Research Question 1: How do academics evaluate the experience of undertaking a positive psychology self-help intervention designed to increase well-being?

To answer this question a research diary was provided for the participants to record the three good things that happened for them each day along with why they identified them as the good thing for five days.

The content analysis of the research diaries from the three good things exercise revealed four main themes.

Theme 1, "research activities," consisted of four sub-themes: research funding; publications; presenting at a conference; and data collection and analysis. It revealed that for academics one of the most positive and important part of their job that make them happy to be in academia is their experiences related to research at the university.

Theme 2, " features of job satisfaction", contained the sub-themes of colleagues; students; and teaching. Academic are enjoying interacting with colleagues and students. These two elements of academic work were identified as being cherished.

Theme 3,"social support at work," included two sub-themes: spending time with colleagues; and providing support to colleagues. This theme illustrated that seeking support from colleagues and helping them in difficult times are regarded as the positive experiences among academics.

Theme 4, " features of happiness ", consisted of three sub-themes: spending time with family; social enjoyment with friends; and shopping. This theme showed that academics enjoy socialising with their family, friends, and shopping for example buying a present for their partner/husband.

Academics' evaluations of experiencing positive psychology intervention

A focus group discussion was held after the completion of the positive psychology intervention. In this academics acknowledged the positive and negative aspects of undertaking in self-report positive psychology intervention. Most of the participants were happy and showed interest in continuing to apply the Three Good Things exercise in their daily lives.

The results of the focus group discussion identified four principal themes and nine sub-themes.

Theme 1, "identifying positives when things are hectic" consisted of sub-themes of shifting from negatives to positives and identifying positives however big/small. This theme revealed that the exercise was useful for academics as it helped them practically identify positive aspects of their day even when their experience of the day as a whole was not satisfying.

Theme 2, 'the 'positive consequences of the three good things" concluded three sub-themes changing attitudes, stop and think, and the positive influences of the exercise. Academics identified that taking part in this study and indeed the positive psychology intervention was a good experience that encouraged them to think positively although it was challenging for them.

Theme 3, " the negative aspects of practicing the three good things" is consisted two sub-themes extra burdens and the hard elements of the exercise. This theme identified that doing this exercise was not easy for academics as expected. They found it was hard to identify three good things that happened in one day in particular the third one, and to some extent explaining why each happened.

Theme 4, "furtherance of the exercise" contained two sub-themes positive attitudes towards the three good things and doing the exercise in stressful times. This theme found that some academics are happy to carry on this exercise regularly and some of them prefer to do this exercise when they are stressed.

The results revealed that academics are happy utilising the three good things exercise. They report that it helps them to think more positively in particular when events are not as satisfying as they might wish (see Chapter 6).

A pre-to post-assessment and two week follow up of stress, well-being, mental health, and gratitude (quantitative element) was also applied in Study 3. The sample size was too small for the quantitative data to be analysed in any really meaningful way and data are only provided for interest. A significant increase in the levels of satisfaction with life was found from Time 1 to Time 2 and from Time 1 to Time 3.

Overall, participants were very positive about the intervention. How individuals feel about undertaking this positive psychology intervention has not been explored previously.

In summary, it was predicted that the answers to all the research questions would provide a better understanding of the stress experienced by academics and the role of character strengths and the coping strategies they use to preserve their health and well-being at work. It is hoped that this research will add to the limited but growing body of knowledge in positive psychology and its application to examining stress at work. The role of psychological strengths, namely gratitude and self-efficacy, in increasing subjective well-being and mental health, and reducing stress at work is new. A problem-

focused coping strategy can help academics to cope positively with stress at work. Sense of coherence as a work coping variable which seems to contribute to reducing stress at work were key findings from this project. The increased number of students, heavy workloads and administrative burdens, poor management, funding cuts, job insecurity, and threats from the government to attack their pension scheme are identified as the main sources of stress among academics. Support from colleagues was the most frequent coping strategy. Academics identified teaching and research as the most valuable parts of their role and administration tasks were less valued. Academics found the three good thing exercise helped them to think about positive thing at the end of day instead of thinking about negative events that happened

7.5 Original contribution to knowledge

These results will contribute significantly to the limited knowledge of applying a positive psychology perspective to examining stress at work among academics. It is the first study to adopt a positive psychology approach to examine the characteristics of UK academics who cope better with stress at work. This addresses a weakness in the previous stress research literature, namely its focus on individuals who cope less well with stress at work. Most research in this area has consistently focused on the psychopathological consequence of stress and how it negatively affected individuals' health and well-being (e.g., Kinman, 2001).

Examining the role of individual difference variables, in particular positive strengths helps to explain why some academics cope better than others with stress at work.

The character strengths of gratitude and hope agency are identified as psychological strengths associated with well-being in academics. Optimism had a buffering effect on mental health in that higher in optimism and stress scores were predictive of greater mental health (GHQ) scores.

The current research is the first UK study that examined both the sense of coherence and work locus of control in one study to predict stress at work as work coping variables among academics. The results indicated that sense of coherence negatively predicted stress therefore academics with high levels of SoC experienced less stress at work. No significant relationship was found between the levels of stress and work locus of control.

The qualitative study also is one of very few studies to examine academics' work roles comprehensively in terms of teaching, research/and scholarship, and administration. Universities have changed greatly in recent years so a more current study such as this one make a useful contribution to the research literature. By asking academics to explain the three things that they would wish to change in their work, the study has contributed significantly to understanding in this area. Finding that academics were experiencing a lack of respect from some students is new and requires further exploration.

Utilising mixed method studies in this research programme has provided additional understanding of academics stress and their well-being and mental health. This research is the first study to evaluate the experience of undertaking a positive psychology intervention. While these interventions are designed by Americans, and it can be argued may fit American culture better, British academics found it a worthwhile exercise. Some respondents found identifying three positive events each day challenging but all found it easy to identify at least one.

7.6 Limitations of the research

There are several limitations in the current research programme. A main limitation is the recruitment strategy that was used for the research programme. This research used the university staff electronic newsletter that is sent fortnightly for all employees both academic and general staff. This is the university approved system for recruiting staff as research participants. Anecdotal evidence suggests that many academics find it difficult to find the time to read this newsletter. This limitation has affected the sample size especially for Study 3, which initially aimed to be an intervention study. Inability to recruit sufficient participants required the researcher to change one element of the design of the study from an evaluation of an intervention to an evaluation of how individuals felt after undertaking the intervention (see Chapter 1). One of the other limitations was related to use of Brief Cope scale in Study 1 that Principal Confirmatory Analysis found a four factor solutions while Parallel Analysis confirmed three factors. However, the four factor solutions was chosen to allow comparison with the stress research literature. The other limitation was related to Study 2 that used an online interview. In this structured interview sometimes the researcher required more explanation of the answers but it was not possible to contact participants. This limitation, however, also can be regarded as an ethical strength of this research programme because

of the anonymity of the participants. While the interviews were mainly structured, an additional question was provided with a text box for academics to add supplementary notes and this was used.

The other limitation of this project is that the results of studies may not be generalised to other universities as data was collected only from a single university although with a reasonable sample size of academics. Another factor that may limit the generalisation of these conclusions in relation to Study 3 is the fact that all the participants were well-educated and possibly with less financial issues/problems. Similarly Seligman et al. (2005) reported this as a limitation of their study because their samples/participants were all well-educated, white, and financially comfortable.

The next limitation of this research relates to the evaluations of intervention study. Here the researcher had no control over the participants to see whether they actually followed all the intervention instructions accurately, although they did all produce diaries.

7.7 Recommendations for future research

These results need to be replicated in different universities. Pressures on staff may vary depending on whether they are at a research-intensive university or not. Future research could focus on evaluating the implementation of positive psychology interventions to assess how well they may reduce stress and increase well-being among academics. This would require a large sample size to allow parametric statistics in terms of method, power, and normality of the distribution. While all the strengths selected here were based on existing research evidence of their relationships with well-being, future studies might want to explore a wider range of strengths. It is suggested that the relationship between optimism and mental health (GHQ) require further investigation when stress levels are low in relation to unrealistic optimism.

7.8 Conclusion

This research programme is one of the first UK studies to focus on character strengths and their associations with well-being and mental health among academics in a post-92 teaching-focused university using a positive psychology perspective. The main aim was to investigate why some academics cope better with stress at work and preserve their well-being and mental health better than others, as psychology traditionally tends to focus on the psychopathological consequences of stress like depression and anxiety. The results revealed that the character strengths of gratitude and hope agency in

particular were identified as factors which may explain why some academics cope better than others with stress at work experience higher levels of well-being and are less stressed. Hope agency was a positive predictor of satisfaction with life, a positive predictor of positive affect and a negative predictor of negative affect. Hope pathway was a negative predictor of satisfaction with life. Hope agency and hope pathway did not moderate the relationship between stress and subjective well-being and mental health (GHQ). Optimism positively predicted satisfaction with life and negatively predicted negative affect. Optimism had a buffering effect on mental health when the levels of stress were high among academics. However, there were no significant relationships between hope agency and hope pathway with mental health in this research. Self-efficacy was a positive predictor of SWL and PA and negative predictor of NA. Problem-focused coping had a negative relationship with stress and dysfunctional coping had a significant positive relationship with stress. Sense of coherence predicted lower levels of stress at work among academics. Through a qualitative study, this research programme found that the increased number of students; heavy workloads and administrative burdens; poor management; funding cuts, job insecurity, and threats from the government to attack the academics pension scheme are identified as the main stressors in academics' work. This research also revealed that relationships with colleagues, students, friends and family, presenting at a conference, and data collection and analysis are the factors that can make academics happy and may reduce their stress. These factors are identified as positive experiences among academics in an evaluation of how individuals felt after undertaking the intervention. Academics felt very positive about completing the Three Good Things exercise but they were not confident to carry on as a regular exercise in their daily lives. This research also found that satisfaction with life significantly increased after the intervention.

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Appendices

Appendix 1 Ethics Proposal for Study 1

SHEFFIELD HALLAM UNIVERSITY

Faculty of Development and Society

Application for Research Ethics Approval
Staff and Postgraduate Research Students

<u>**Section A Research Protocol**</u>

NB- To avoid duplication, if you already have a research protocol prepared for this study which answers the methodology questions in this section, please send a copy of your original protocol instead of Section A. You MUST however complete ALL of Sections B and C.

1.　　**Name of principal investigator: Mitra Darabi**
　　　Faculty: Development and Society
　　　Email address: <u>mitra.darabi@ student.shu.ac.uk</u>

2.　　**Title of research:** Character Strength and Stress Management in Academic Staff: A Positive Psychology Perspective

3.　　**Supervisor if applicable:** Prof. Ann Macaskill
　　　Email address<u>: a.macaskill@shu.ac.uk</u>

4.　　**ENT number if applicable:**

5.　　**Other investigators (within or outside SHU)**

Title	Name	Post	Division	Organisation

6.　　 **Proposed Duration of Project:**
　　　Start date: September 2009
　　　End Date: February 2010

7.　　**Main purpose of Research:**
　　　✓　　Educational qualification
　　　☐　　Publicly funded research
　　　☐　　Staff research project
　　　☐　　Other (Please supply details)

8.　　**Background to the Study and Scientific Rationale** (500 words approximately)

The experience of stress is common in many aspects of life especially in work environments. Estimates suggest that stress is costing UK employers £1.24 billion annually (Health & Safety Executive, 2003). Some research has concluded that stress is an important economic and health issue causing more than 15 million working days lost annually in the UK. It is estimated that 12.8 million working days are lost in the U.K in 2004-2005 because of stress. It is also associated with increases in depression and anxiety (Health & Safety Executive, 2005).

Stress has become more of an issue in UK universities. There are several reasons that may help to explain this including; the growth in the number of students, expanding the business undertaken and reductions in funding (Kinman & Jones, 2003; Kinman, Jones & Kinman, 2006). Furthermore, the rate of pay has slowly decreased comparatively in the UK university sector in recent decades relative to other occupations, job security has declined and the demands for self-sufficiency in regard to computing and administration have increased, all potentially increasing the pressure on academic staff (Kinman et al., 2006). It is sometimes argued that academics report more psychological distress than other comparable professionals in the UK and Australia (Kinman et al., 2006; Winefield et al., 2003). On the other hand, job stress although regarded as a hazard to the well-being of academic staff has not been regularly studied (Bradely & Euchus, 1995; Daneils & Guppy, 1994; Tytherleigh et al., 2005). This lack of research provides one rationale for this doctoral study.

The research that has been undertaken has focused on individuals who are stressed with the result that little is known about individuals who cope well and even thrive in what are potentially stressful work environments. Indeed, Folkman and Moskowitz, (2000) argue that it is necessary to study the more positive side of coping with stress. This research aims to explore positive coping by adopting the perspective of Positive Psychology (Seligman, & Csikszentmihalyi, 2000). Peterson and Seligman (2004) have identified 24 character strengths that all human beings across all cultures possess. These 24 strengths can be classified into eight higher order strengths. The theory and emerging research suggests that individuals can use these strengths to help them cope with stressful events in their lives. This research will adopt the positive psychology approach to measure character strengths in university academic staff and examine which are particularly associated with successful coping in what is a potentially stressful environment.

However, not all the strengths that have been identified can be modified by psycho-educational interventions (Seligman, Steen, Park, & Peterson, 2005). As one aim of this research is to implement and evaluate some of the positive psychology interventions that have been shown to be effective at promoting well-being in groups, other than academic staff, the decision was made to exclude measurement of character strengths that are not open to modification and have not been shown by previous research to promote coping and well-being. This was considered to be a more ethical approach also. These considerations and a review of the literature, have led to the identification of optimism, hope and gratitude as the relevant character strengths to be examined in this study, along with concepts of self-efficacy and sense of coherence which are all related to stress and coping in the research literature.

Identifying the characteristics of individuals who cope well with the stresses of academic life will address an identified weakness in the stress literature where all the previous research focuses on individuals who are stressed. This study will allow psychological profiling of academics who cope well with the potentially stressful aspects of academic life. The participant group has also been shown to be under-researched in a time of great change in universities with associated increases in stress. It

will be the first study to use a positive psychology approach with this group in the UK. Similarly the interventions proposed for later in the study will be novel. These are not specified at this stage as the results of the staff survey will inform the intervention.

9.   Has the scientific / scholarly basis of this research been approved? (For example by Research Degrees Subcommittee or an external funding body.)

    ✓   Yes RF1 completed
    ☐   No - to be submitted
    ☐   Currently undergoing an approval process
    ☐   Irrelevant (e.g. there is no relevant committee governing this work)

10.   Main Research Questions

What is the relationship between character strengths such as; hope, optimism, gratitude, and other relevant personality and individual differences variables and health and well-being and positive coping with stress?

11.   Summary of Methods including Proposed Data Analyses

The university has already given permission to recruit academic staff to participate in this project. The main aim will be addressed by collecting and analysing date via an online questionnaire that is completed anonymously. The initial questionnaire will include the character strengths outlined above, plus a measure of coping, self-efficacy, perceived stress, health, and well-being using appropriate standardised measures. These measures are included Work Locus of Control Scale (WLCS), The General Self-Efficacy Scale (GSE), The Workplace Stress Scale(WSS), The General Well_ Being Scale, The Gratitude Questionnaire-Six Item Form (GQ-6), Adult Hope Scale , The Sense of Coherence Questionnaire (SoC-Q), Satisfaction with life: Satisfaction With Life Scale(SWLS), Life- Orientation Test -Revised(LOT-R) to measure optimism, The Positive and Negative Affect Scale (PANAS).

It is a correlation study, where associations between particular character strengths and stress, health and well-being will be examined. Multiple regressions will then be used to identify possible predictors, mediators and moderators of stress, health and well-being.

Section B: Ethics Proforma

1.   Describe the arrangements for selecting/sampling and briefing potential participants. (This should include copies of any advertisements for volunteers or letters to individuals/organisations inviting participation.)

Permission to approach academic staff to seek volunteers to participate in the research has been given by the university Employee Well-being Committee, the University Secretary, the Health and Safety Manager and the relevant faculty PVC Executive Deans.

An email advertising the research will be sent to academic staff telling them about the study and inviting their participation. (see appendix for advert)

2.   What is the potential for participants or third parties to benefit from the research?

More knowledge of how individuals cope well with stress will enable health education material and interventions to be developed for the benefit of all academic staff.

3. **Describe any possible negative consequences of participation in the research along with the ways in which these consequences will be limited.**
None are predicted. If staff becomes aware that they are stressed due to completing the stress measure, details of sources of help and support will be made available to them

4. **Describe the arrangements for obtaining participants' consent.** (This should include copies of the information that they will receive & written consent forms where appropriate. If children or vulnerable people are to be participants in the study details of the arrangements for obtaining consent from those acting in *loco parentis* or as advocates should be provided.)

This is an online survey that is completed anonymously. No email addresses or any identifying data is collected. The instructions will make it clear to participants that pressing the submit button is taken as providing informed consent to participate in the study.

5. **Describe how participants will be made aware of their right to withdraw from the research.** (This should also include information about participants' right to withhold information.)

Participants will be informed that they are free to discontinue the online questionnaire at any time.

6. If your data collection requires that you work alone with children or other vulnerable participants have you undergone **Criminal Records Bureau screening**? Please supply details.
NA

7. **Describe the arrangements for debriefing the participants.** (This should include copies of information that participants will receive where appropriate.)
At the end of the questionnaire participants will be provided with details of sources of help and support. The contact details of the researcher and her supervisor will be provided in the email for participants wishing further information.

8. **Describe the arrangements for ensuring participant confidentiality.** (This should include details of how data will be stored to ensure compliance with data protection legislation and how results will be presented.)

Conducting the study anonymously means that individual staff will not be identified. What will be identified are character strengths that may have a protective function in coping with academic stressors. To address some of the potential ethical concerns, only character strengths where there is evidence that they can be empirically modified are included in the measures. The study will not seek to use any confidential employment data held by the university on individual staff.

9. Are there any conflicts of interest in you undertaking this research? (E.g. Are you undertaking research on work colleagues; or in an organisation where you are a consultant?) Please supply details.
None

10. **What are the expected outcomes, impacts and benefits of the research?** I
This research addresses a gap in the literature. Much is known about individuals who have difficulty coping with stress but very little is known about those who cope positively with stress. Measuring character strengths that are open to change allows for

the development of interventions to assist staff cope better with stress at work in future by developing strengths.

11.   Please give details of any plans for dissemination of the results of the research.
    Written up for PhD thesis and papers will be produced for publications and conference presentation.

SECTION C : HEALTH AND SAFETY RISK ASSESSMENT FOR THE RESEARCHER

1.   Will the proposed data collection take place on campus?

    ✓   Yes   (Please answer questions 4 and 6 only)
    ☐☐   No   (Please complete all questions)

    Data will be collected via the staff Internet.

2.   Where will the data collection take place?
    (Tick as many as apply if data collection will take place in multiple venues)

☐☐	Own house/flat	☐	☐Residence of participant
☐☐	School	☐	☐Business/Voluntary Organisation
☐☐	Public Venue (e.g. Youth Club; Church; etc)		
☐☐	Other (Please specify) _____		

3.   How will you travel to and from the data collection venue?

    ☐☐   On foot   ☐☐   By car   ☐☐   Public Transport
    ☐☐   Other (Please specify) _____

    Please outline how you will ensure your personal safety when travelling   to and from the data collection venue:

4.   How will you ensure your own personal safety whilst at the research venue?

    Not applicable
If you are carrying out research off-campus, you must ensure that each time you go out to collect data you ensure that someone you trust knows where you are going (without breaching the confidentiality of your participants), how you are getting there (preferably including your travel route), when you expect to get back, and what to do should you not return at the specified time. Please outline here the procedure you propose using to do this:
5.   Are there any potential risks to your health and wellbeing associated with either (a) the venue where the research will take place and/or (b) the research topic?

    ☐☐✓ None that I am aware of

☐☐   Yes (Please outline below)

7.Does this research project require a health and safety risk analysis for the procedures to be used? No

If YES current status of Health and Safety Risk Assessment.

I confirm that this research will conform to the principles outlined in the Sheffield Hallam University Research Ethics policy.

I confirm that this application is accurate to the best of my knowledge.

Principal Investigator's signature	
Date	

Supervisor's signature (if applicable)	
Date	

A1.1 Participant information sheet for online questionnaire

Stress and emotional well-being in academic staff: A survey

Positive psychology is a new approach that is concerned with ways of improving the health and well-being of the general population not just those who are ill. In recent years, the demands on academic staff have increased considerably with a resultant increase in work-related stress (Kinman, 2008). However, while many academics cope with the variety of stressors that are inherent to their job, it may impact negatively on their work-life balance and general well-being. This survey is the first study in a research project aiming to promote emotional well-being in academic staff. Positive psychology has identified a range of character strengths that individuals have but they may be unaware of but which can be used to help them cope in stressful situations. We are interested in exploring how these character strengths facilitate coping with work related stress. To this end we are assessing some of your character strengths, work-related stress levels, and psychological well-being.

The questionnaire is completed anonymously and there is no email or other link to participants. It should take around 20 minutes to complete. We will follow this up with interviews to examine further the issues you identify with the aim of making recommendations and running interventions to promote increased well-being in the workplace.

This study is part of my PhD in psychology at Sheffield Hallam University. My supervisor is Professor Ann Macaskill, contact details are given below. The study has the support of the Emotional Well-being Group in Human Resources, the Health and Safety manager and UCU.

This is a new approach and we really appreciate your help.

Completing the questionnaire and pressing the submit button is taken as you providing informed consent to participate in the study.

To begin please click the link below

https://ds.shu.ac.uk/survey2/?q=4AA0D0F1JRRM

Kindest regards

Mitra Darabi E-mail address: Mitra.Darabi@student.shu.ac.uk.

Supervisor contact details: Professor Ann Macaskill : a.macaskill@shu.ac.uk

A1.2 Debriefing

<u>Employee Support Helpline</u>

If by participating in this study you have identified that you are having any difficulties with any aspect of your work, or are feeling under pressure or unhappy, the helpline can offer support and advice as a first point of contact. Independent impartial volunteer advisors are available.

Working hours: 9am to 5pm Monday to Friday and offers a 24 hour voicemail service at all other times.

Contact detail: Telephone 0114 225 6161

<u>Staff Counselling Service</u>

The University provides a small resource so that can offer counselling to University staff within the Counselling Service.

Telephone: 0114 225 381

Appendix 2 Study 1: Data collection

A2.1 Demographics information

1. Can you tell us if you are male or female?

Male   Female

2. Can you tell us how old are you?

_____

3. Marital Status

- Single
- Married
- Civil partnership
- Co-habited
- Divorced
- Widowed
- Other (with explanatory text)

4. Please indicate your ethnicity

- White
- Black British
- Black other
- Asian
- Mixed race
- Other (with explanatory text)

1. Is your job

- Full-time
- Part-time

If you are working part-time please indicate how many hours per week you work on average.

What is your position at university?

- Associate lecturer
- Lecturer
- Senior lecturer
- Principle lecturer
- Reader
- Professor
- SSG
- Research associate
- Research fellow
- Senior research fellow
- Principle research fellow
- Other (with explanatory text)

A2.2 Questionnaire

A2.2.1The Gratitude Questionnaire (GQ)

(McCullough, Emmons, & Tsang, 2002)

Please indicate your agreement with the following items by ticking the box next to the item.

Using the scale below respond to each statement by circling the number that corresponds with how you would normally describe yourself.

1= Strongly disagree	**2**= Disagree	**3**= Slightly disagree
4= Neutral	**5**= Slightly agree	**6**= Agree
7= Strongly agree		

1. I have so much in life to be thankful for.	1	2	3	4	5	6	7
2. If I had to list everything that I felt grateful for, it would be a very long list.	1	2	3	4	5	6	7
3. When I look at the world, I don't see much to be grateful for.	1	2	3	4	5	6	7
4. I am grateful to a wide variety of people.	1	2	3	4	5	6	7
5. As I get older, I find myself more able to appreciate the people, events, and situations that have been part of my life history.	1	2	3	4	5	6	7
6. Long amounts of time can go by before I feel grateful to something or someone.	1	2	3	4	5	6	7

A2.2.2 The 13-item Sense of Coherence Questionnaire (SoC)

(Antonovsky, 1987)

Here is a series of questions relating to various aspects of your lives. Each question has seven possible answers. Please mark the number, which expresses your answer, with number 1 and 7 being the extreme answers. If the words under 1 are right for you, circle 1: if the words under 7 are right for you, circle 7. If you feel differently, circle the number which best expresses your feeling. Please give only one answer to each question

1.Do you have feeling that you don't really care about what goes around you?

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |

Very seldom   very often or never

2.Has it happened in the past that you were surprised by the behaviour of people whom you thought you know well?

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |

Never happened   always happened

3. Has it happened that people who accounted on disappointed you?

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |

Never happened   always happened

4. Until now your life has had

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |

No clear goals or purpose at all   very clear goals or purpose

5. Do you have the feeling that you're being treated unfairly?

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |

Very often   very seldom or never

6. Do you have the feeling that you are in an unfamiliar situation and don't know what to do?

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |

Very often   very seldom or never

7. Doing the things you do every day is

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |

A source of deep pleasure and satisfaction a source of pain and boredom

8. Do you have mixed-up feelings and ideas?

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |

Very often   very seldom or never

9. Does it happen you have feelings inside you would rather not feel?

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |

Very often   very seldom or never

10. Many people-even those with a strong character sometimes feel like sad sacks (loser in the certain situations. How often have you felt this way in the past?

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |

Never   very often

11.When something happened have you generally found that

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |

You over estimated or   under estimated

12. How often do you have the feeling there's little meaning in the things you do in your daily life?

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |

Very often   very seldom or never

13. How often do you have feelings that you're not sure you can keep under control?

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |

Very often   very seldom

A2.2.3 Hope: Adult Hope Scale

(Snyder, et al., 1991)

Using the scale below, please select the number that best describes *YOU* and put that number in the blank space provided.

1= Definitely false   2 = Mostly false   3 = Somewhat false   4 = Slightly false

5 = Slightly true   6 = Somewhat true   7 = Mostly true   8 = Definitely true

1. I can think of many ways to get out of a jam   _____

2. I energetically pursue my goals   _____

3. I feel tired most of the time   _____

4 There are lots of ways around my problem   _____

5. I am easily downed in an argument   _____

6. I can think of many ways to get the things in life that are   _____

important to me

7. I worry about my health   _____

8. Even when others get discouraged, I know I can find a way   _____

to solve the problem

9. My past experiences have prepared me well for my future   _____

10. I've been pretty successful in life   _____

11. I usually find myself worrying about something   _____

12. I meet the gaols that I set for myself

A2.2.4 Life Orientation Test-Revised (LOT-R)

(Scheier, Carver, & Bridges, 1994)

Read each item carefully .Using the scale below, please circle the number that best describes *YOU* next to the questions.

0 =Strongly disagree   1 = Disagree   2 = Neutral   3 = Agree

4 = Strongly agree

1. In uncertain times, I usually expect the best	0	1	2	3	4
2. It's easy for me to relax	0	1	2	3	4
3. If something can go wrong for me, it will	0	1	2	3	4
4. I'm always optimistic about my future	0	1	2	3	4
5. I enjoy my friends a lot	0	1	2	3	4
6. It's important for me to keep busy	0	1	2	3	4
7. I hardly ever expect things to go my way	0	1	2	3	4
8. I don't get upset too easily	0	1	2	3	4
9. I rarely count on good things happening to me	0	1	2	3	4
10. Overall, I expect more good things to happen	0	1	2	3	4

to me than bad

A2.2.5 Positive and Negative Affect Scale (PANAS)

(Watson, Clark, & Tellegen, 1988)

This scale consists of a number of words that describe different feelings and emotions. Read each item and then mark the appropriate answer in the space next to that word. Indicate to what extent in the past few weeks you have felt this way
 Use the following scale to record your answers.
1= Very slightly or not at all   2= A little   3= Moderately   4= Quite a bit
5= Extremely

	Very slightly or not at all	A little	Moderately	Quite a bit	Extremely
1.Interested	1	2	3	4	5
2.Distressed	1	2	3	4	5
3.Excited	1	2	3	4	5
4.Upset	1	2	3	4	5
5.Strong	1	2	3	4	5
6.Guilty	1	2	3	4	5
7.Scared	1	2	3	4	5
8.Hostile	1	2	3	4	5
9.Enthusaistic	1	2	3	4	5
10.Proud	1	2	3	4	5
11.Irritable	1	2	3	4	5
12.Alert	1	2	3	4	5
13.Ashamed	1	2	3	4	5
14.Inspired	1	2	3	4	5
15.Nervous	1	2	3	4	5
16.Determined	1	2	3	4	5
17.Attentive	1	2	3	4	5
18.Jittery	1	2	3	4	5
19.Active	1	2	3	4	5
20.Afraid	1	2	3	4	5

A2.2.6 The Work Locus of Control Scale

(Spector, 1988)

The following questions concern your beliefs about jobs in general. They do not refer only to your present job.	Disagree very much	Disagree moderately	Disagree slightly	Agree slightly	Agree moderately	Agree very much
1. A job is what you make of it	1	2	3	4	5	6
2. On most jobs, people can pretty much accomplish whatever they set out to accomplish	1	2	3	4	5	6
3. If you know what you want out of a job, you can find a job that gives it to you	1	2	3	4	5	6
4. If employees are unhappy with a decision made by their boss, they should do something about it	1	2	3	4	5	6
5. Getting the job you want is mostly a matter of luck	1	2	3	4	5	6
6. Making money is primarily a matter of good fortune	1	2	3	4	5	6
7. Most people are capable of doing their jobs well if they make the effort	1	2	3	4	5	6
8. In order to get a really good job, you need to have family members or friends in high places	1	2	3	4	5	6
9. Promotions are usually a matter of good fortune	1	2	3	4	5	6
10. When it comes to landing a really good job, who you know is more important than what you know	1	2	3	4	5	6
11. Promotions are given to employees who perform well on the job	1	2	3	4	5	6
12. To make a lot of money you have to know the right people	1	2	3	4	5	6
13. It takes a lot of luck to be an outstanding employee on most jobs	1	2	3	4	5	6
14. People who perform their jobs well generally get rewarded	1	2	3	4	5	6
15. Most employees have more influence on their supervisors than they think they do	1	2	3	4	5	6
16. The main difference between people who make a lot of money and people who make a little money is luck	1	2	3	4	5	6

A2.2.7 The General Health Questionnaire (GHQ-12)

(Goldberg & Williams, 1988)

We would like to know how your health has been in general, over the past few weeks. Please answer all questions simply by underlining the answer which you think most nearly applies to you.

Have you recently:

1. Been able to concentre on whatever you're doing?			
1. Better than usual	2. Same as usual	3. Less than usual	4. Much less than usual
2. Lost much sleep over worry?			
1. Not at all	2. No more than usual	3. Rather more than usual	4. Much more than usual
3. Felt that you are playing a useful part in things?			
1. More so than usual	2. Same as usual	3. Less useful than usual	4. Much less useful
4. Felt capable of making decision about things?			
1. More so than usual	2. Same as usual	3. Less so than usual	4. Much less capable
5. Felt constantly under strain?			
1. Not at all	2. No more than usual	3. Rather more than usual	4. Much more than usual
6. Felt you couldn't overcome your difficulties?			
1. Not at all	2. No more than usual	3. Rather more than usual	4. Much more than usual
7. Been able to enjoy your normal day-to day activities?			
1. More so than usual	2. Same as usual	3. Less so than usual	4. Much less than usual
8. Been able to face up your problems?			
1. More so than usual	2. Same as usual	3. Less able than usual	4. Much less able
9. Been feeling unhappy and depressed?			
1. Not at all	2. No more than usual	3. Rather more than usual	4. Much more than usual
10. Been losing confidence in yourself?			
1. Not at all	2. No more than usual	3. Rather more than usual	4. Much more than usual
11. Been thinking of yourself as a worthless person?			
1. Not at all	2. No more than usual	3. Rather more than usual	4. Much more than usual
12. Been feeling reasonably happy, all things considered?			
1. More so than usual	2.About same as usual	3. Less so than usual	4. Much less than usual

A2.2.8 General Self-efficacy

(Schwarzer & Jerusalem, 1979) -

Below is a list of feelings dealing with general feelings about yourself. Please indicate the amount of your agreement with each item

1 = Not at all true   2 = Hardly true   3 = Moderately true   4 = Exactly true

1. I can always manage to solve difficult problems if I try hard enough.

2. If someone opposes me, I can find the means and ways to get what I want.

3. It is easy for me to stick to my aims and accomplish my goals.

4. I am confident that I could deal efficiently with unexpected events:

5. Thanks to my resourcefulness, I know how to handle unforeseen situations.

6. I can solve most problems if I invest the necessary effort.

7. I can remain calm when facing difficulties because I can rely on my coping abilities.

8. When I am confronted with a problem, I can usually find several solutions.

9. If I am in trouble, I can usually think of a solution.

10. I can usually handle whatever comes my way

A2.2.9 Satisfaction with Life Scale (SWLS)

(Diener, Emmons, Larsen, & Griffin, 1985)

Please indicate your agreement with the following items by ticking the box next to the item:

	Strongly Disagree 1	Disagree 2	Slightly disagree 3	Neither agree nor disagree 4	Slightly Agree 5	Agree 6	Strongly Agree 7
In most ways my life is close to ideal							
The conditions of my life are excellent							
I am satisfied with my life							
So far I have got the important things I want in life							
If I could live my life again, I would change almost nothing							

A2.2.10 Perceived Stress Scale

(Cohen & Williamson, 1988)

The questions in this scale ask you about your feelings and thoughts during the last month. In each case, please indicate how often you felt or thought a certain way by circling the number.

1. In the last month, how often have you been upset because of something that happened unexpectedly?

    0=Never   1=Almost never   2=Sometimes   3=Fairly often   4=Very often

2. In the last month, how often have you felt that you were unable to control the important things in your life?

    0=Never   1=Almost never   2=Sometimes   3=Fairly often   4=Very often

3. In the last month, how often have you felt nervous and "stressed"?

    0=Never   1=Almost never   2=Sometimes   3=Fairly often   4=Very often

4. In the last month, how often have you felt confident about your ability to handle your personal problems?

    0=Never   1=Almost never   2=Sometimes   3=Fairly often   4=Very often

5. In the last month, how often have you felt that things were going your way?

    0=Never   1=Almost never   2=Sometimes   3=Fairly often   4=Very often

6. In the last month, how often have you found that you could not cope with all the things that you had to do?

    0=Never   1=Almost never   2=Sometimes   3=Fairly often   4=Very often

7. In the last month, how often have you been able to control irritations in your life?

    0=Never   1=Almost never   2=Sometimes   3=Fairly often   4=Very often

8. In the last month, how often have you felt that you were on top of things at work?

    0=Never   1=Almost never   2=Sometimes   3=Fairly often   4=Very often

9. In the last month, how often have you been angered because of things that were outside of your control?

    0=Never   1=Almost never   2=Sometimes   3=Fairly often   4=Very often

10. In the last month, how often have you felt difficulties were piling up so high that you could not overcome them?

    0=Never   1=Almost never   2=Sometimes   3=Fairly often   4=Very often

A2.2.11 Brief COPE

(Carver, 1997)

We are interested in how people respond when they confront difficult or stressful events in their lives. There are lots of ways to try to deal with stress. This questionnaire asks you to indicate what you generally do and feel when *you* experience stressful events. Obviously, different events bring out somewhat different responses, but think about what you *usually* do when you are under a lot of stress.

Then respond to each of the following items by choosing one number for each, using the response choices listed below.

Please try to respond each item *separately in your mind from each other item*. Choose your answer thoughtfully, and make your answer as true FOR YOU as you can. Please answer *every* item. There are no "right" or "wrong" answers, so choose the most accurate answer for YOU --not what you think "most people" would say or do. Indicate what you usually do when YOU experience a stressful event.

1 = I usually don't do this at all	2 = I usually do this a little bit
3 = I usually do this a medium amount	4 = I usually do this a lot

1. I've been concentrating my efforts on doing something about this situation I'm in.   1 2 3 4

2. I've been trying to come up with a strategy about what to do.   1 2 3 4

3. I've been trying to see it in a different light, to make it seem more. positive   1 2 3 4

4. I've been accepting the reality of the fact that it has happened.   1 2 3 4

5. I've been making jokes about it.   1 2 3 4

6. I've been trying to find comfort in my religion or spiritual beliefs.   1 2 3 4

7. I've been getting emotional support from others.   1 2 3 4

8. I've been trying to get advice or help from other people about what to do.   1 2 3 4

9. I've been turning to work or other activities to take my mind off things.   1 2 3 4

10. I've been saying to myself "this isn't real".   1 2 3 4

11. I've been saying things to let my unpleasant feelings escape.   1 2 3 4

12. I've been using alcohol or other drugs to make myself feel better.   1 2 3 4

13. I've been giving up trying to deal with it.   1 2 3 4

14. I've been criticizing myself.   1 2 3 4

15. I've been learning to live with it.   1 2 3 4

16. I've been taking action to try to make the situation better.   1 2 3 4

17. I've been thinking hard about what steps to take.   1 2 3 4

18. I've been looking for something good in what is happening.	1	2	3	4
19. I've been making fun for the situation.	1	2	3	4
20 I've been I've been praying or mediating.	1	2	3	4
21. I've been getting comfort and understanding from someone.	1	2	3	4
22. I've been getting help and advice from other people.	1	2	3	4
23. I've been doing something to think about it less, such as going to movies,	1	2	3	4
watching TV, reading, daydreaming ,sleeping, or shopping.	1	2	3	4
24. I've been refusing to believe that it has happened.	1	2	3	4
25. I've been expressing my negative feelings.	1	2	3	4
26. I've been using alcohol or other drugs to help me get through it.	1	2	3	4
27. I've been giving up the attempt to cope.	1	2	3	4
28. I've been blaming myself for things that happened.	1	2	3	4

Faculty of Development and Society

Application for Research Ethics Approval
Staff and Postgraduate Research Students

Section A

Important Note- If a previously submitted research proposal answers the methodology questions in this section, please include a copy of the proposal and leave those questions blank. You MUST however complete ALL of Section B

1. **Name of principal investigator:** Mitra Darabi
   Faculty: Development and Society
   Email address: dsmd1@exchange.shu.ac.uk

2. **Title of research:** Character Strength and Stress Management in Academic Staff: A Positive Psychology Perspective

3. **Supervisor if applicable:** Professor Ann Macaskill
   Email address: a.macaskill@shu.ac.uk

4. **ENT number if applicable:**

5. **Other investigators (within or outside SHU)**

Title	Name	Post	Division	Organisation

6. **Proposed Duration of Project:**
   Start date: March 2011   End Date: October 2011

7. **Main purpose of Research:**
   ✓ Educational qualification
   ☐ Publicly funded research
   ☐ Staff research project
   ☐ Other (Please supply details)

8. **Background to the Study and Scientific Rationale** (500 words)

Previous published research has focused on individuals who are stressed with the result that little is known about individuals who cope well and even thrive in what are potentially stressful work environments. Indeed, Folkman and Moskowitz (2000) argue that it is necessary to study the more positive side of coping with stress. A preliminary quantitative study has already been completed which assessed stress levels amongst academic staff amongst other variables such as character strengths and coping. This has provided quantitative data on the characteristics of individuals that cope positively with work stress. However, the quantitative methodology employed could not provide a detailed picture of the work stress experienced by academics and how that is perceived. Hence this study which aims to gather more in depth material relating to the stressors experienced by academics and their ways of coping using qualitative methodology.

Interviewing is one of the most common and powerful methods which is used by qualitative researchers to collect more in depth knowledge (Fontana and Frey, 2003; Bryman, 2004). However, as English is not my native language, face-to-face interviewing seemed not to be the method of choice as the speed of conversation and interpreting regional accents would negatively impact on my ability to conduct a free-flowing interview. This would then affect the quality of the data collected. However, there is now a significant

body of literature on the use of web-based interviews suggesting that this can be an effective way of collecting qualitative data (Mann & Stewart, 2000). While this does result in a more structured interview, respondents can still be given the freedom to add additional material as they see fit. The interview schedule needs to be carefully constructed and piloted to ensure that it does ask appropriate questions in an open format wherever possible to encourage respondents to expand on their replies.

In summary, the aim is to collect more in-depth information from academics on their working experience at university, identifying both positive and negative aspects.

9.   **Has the scientific / scholarly basis of this research been approved? (For example by Research Degrees Subcommittee or an external funding body.)**

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✓ Yes,RF2 and Study 1 completed
☐ No - to be submitted
☐ Currently undergoing an approval process
☐ Irrelevant (e.g there is no relevant committee governing this work)

10. Main Research Questions What do academic staff perceive to be the positive and negative features of academic working life and how they cope with this?

11. Summary of Methods including Proposed Data Analyses An online structured interview with opportunity for additional comment will examine in more detail the rewarding and more challenging aspects of academics jobs. A version of online survey software developed at SHU will be used to deliver the interview questions as this allows for anonymous collection of data. Conducting the study online will address the language difficulty issues, as well as having benefits in terms of transcription. The results will be analysed using thematic analysis (Aronson, 1994). NVIVO may be used to help manage the data set.

Section B

1. Describe the arrangements for selecting/sampling and briefing potential participants. Permission to approach academic staff to seek volunteers to participate in the research has been given by the university Employee Well-being Committee, the University Secretary, the Health and Safety Manager and the relevant faculty PVC Executive Deans.

An email advertising the research will be sent to academic staff telling them about the study and inviting their participation. (See appendix for advert). This will be done on a faculty by faculty basis to control for numbers, as the aim is to collect data from around 15-20 participants as this should allow saturation to be reached. Additional participants can then be recruited if necessary.

2. What is the potential for participants or third parties to benefit from the research?

More knowledge of how individuals cope well with stress will enable health education material and interventions to be developed for the benefit of all academic staff.

3.   Describe any possible negative consequences of participation in the research along with the ways in which these consequences will be limited.
None are predicted as the focus is as much about identifying positives as it is about identifying challenges.

4.   Describe the arrangements for obtaining participants' consent. This is an online interview that is completed anonymously. No email addresses or any identifying data is collected. It will be made clear to participants that by clicking the submit button, they are providing informed consent and permission for their data to be used anonymously by the researchers.

5.   Describe how participants will be made aware of their right to withdraw from the research.

Participants will be informed that they are free to discontinue the online interview at any time and their data will not be collected.

6.   If your data collection requires that you work alone with children or other vulnerable participants have you undergone Criminal Records Bureau screening? Please supply details. NA

7.   Describe the arrangements for debriefing the part At the end of the open-ended questions (interview) participants will be provided with details of SHU sources of help and support should they feel this is necessary. The contact details of the researcher and her supervisor will be provided in the email for participants wishing further information.

8.   Describe the arrangements for ensuring participant confidentiality. Conducting the study anonymously means that individual staff will not be identified. What will be identified are academics perceptions about the positive and negative aspects of their job. The study will not seek to use any confidential employment data held by the university on individual staff. Any information provided that might identify a particular individual will be suitably disguised if it is necessary to use it.

9.   Are there any conflicts of interest in you undertaking this research?
(E.g. Are you undertaking research on work colleagues; or in an organisation where you are a consultant?) Please supply details.

None

10. **What are the expected outcomes, impacts and benefits of the research?** This research addresses a gap in the literature. Much is known about individuals who have difficulty coping with stress but very little is known about those who cope positively with stress. Anonymous interviewing online, which is a relatively new method, will provide a very confidential anonymous medium allowing participants to freely express their feelings without any of the social constraints that might be present in the face-to-face situation with a research student.

11. **Please give details of any plans for dissemination of the results of the research** Written up for PhD thesis and papers will be produced for publications and conference presentation. A brief report will also be provided for participants to consult via a medium such as electronic staff newsletter which disseminated the original study.

SECTION C

RISK ASSESSMENT FOR THE RESEARCHER

1. Will the proposed data collection take place on campus?

    ✓ Yes By computer (Please answer questions 4 and 6 only)
    ☐☐ No (Please complete all questions)

2. Where will the data collection take place?
    (Tick as many as apply if data collection will take place in multiple venues)

    ☐☐ Own house/flat   ☐   ☐Residence of participant
    ☐☐ School   ☐   ☐Business/Voluntary Organisation
    ☐☐ Public Venue (e.g. Youth Club; Church; etc)
    ☐☐ Other (Please specify) _____

    Na

3. How will you travel to and from the data collection venue?

    ☐☐ On foot   ☐☐ By car   ☐☐ Public Transport
    ☐☐ Other (Please specify) _____

Please outline how you will ensure your personal safety when travelling to and from the data collection venue: NA

4.   How will you ensure your own personal safety whilst at the research venue?
Not applicable

5.   If you are carrying out research off-campus, you must ensure that each time you go out to collect data you ensure that someone you trust knows where you are going (without breaching the confidentiality of your participants), how you are getting there (preferably including your travel route), when you expect to get back, and what to do should you not return at the specified time. Please outline here the procedure you propose using to do this:

6.   Are there any potential risks to your health and wellbeing associated with either (a) the venue where the research will take place and/or (b) the research topic itself?

              ✓ ☐☐   None that I am aware of
☐☐   **Yes (Please outline below)**

7.Does this research project require a health and safety risk analysis for the procedures to be used? Yes /No

If YES current status of Health and Safety Risk Assessment.

I confirm that this research will conform to the principles outlined in the Sheffield Hallam University Research Ethics policy.

I confirm that this application is accurate to the best of my knowledge.

Principal Investigator's signature	
Date	

Supervisor's signature (if applicable)	Ann Macaskill
Date	

A3.1 Participant information sheet publishing in staff electronic newsletter for online interview

Positive Psychology Research

Please let us have your views on your working life, good and not so good.

I am a PhD student in psychology at Sheffield Hallam University and my supervisor is Professor Ann Macaskill. We are looking for academics to tell us what they enjoy and what is challenging about their current work and what they would like to see changed, and how they cope with challenge at work. The interview is completed and submitted anonymously to a central server. By pressing the submit button you providing informed consent for your data be used. This study aims to collect more details about the positive and negative aspects of academic life.

Meanwhile we hope you will help by clicking the link below and completing the questionnaire.

Survey URL: https://ds.shu.ac.uk/survey2/?q=4D64FA91MHEG

Once started should you decide that you do not wish to continue simply close the page and no data will be saved. What you say is confidential, no contact information or other identifying details are required. The study has ethical approval from the D&S REC. If you have any queries regarding this research, please do not hesitate to contact us.

Your help is much appreciated.

Kindest regards

Mitra Darabi

Email address: dsmd1@exchange.shu.ac.uk

Supervisor contact detail: Professor Ann Macaskill

a.macaskill@shu.ac.uk

A3.2 Debriefing

<u>Employee Support Helpline</u>

If by participating in this study you have identified that you are having any difficulties with any aspect of your work, or are feeling under pressure or unhappy, the helpline can offer support and advice as a first point of contact. Independent impartial volunteer advisors are available.

Working hours: 9am to 5pm Monday to Friday and offers a 24 hour voicemail service at all other times.

Contact detail: Telephone 0114 225 6161

<u>Staff Counselling Service</u>

Appendix 4 Study 2: Data collection

A4.1 Demographic information

Can you tell us what your gender identity is?

Could you please specify your job title?

How long have you been employed as an academic?

A4.2 Interview questions

Instruction: You can write as much you like. Your opinions are valued and this is submitted anonymously. If any identifying information is included in your responses this will be anonymised.

Can you briefly describe how you feel about the teaching element of your job?

Can you identify the most rewarding and most challenging aspects of teaching?

Do you have any particular ways of coping if any aspect of work becomes challenging

Can you briefly describe how you feel about the research/scholarship component of your job?

Can you describe the most rewarding and most challenging aspects of research/scholarship?

Can you briefly describe how you feel about the administrative elements of your job?

Can you describe the most rewarding and most challenging aspects of the administrative elements?

Do you have a preference for teaching, research/scholarship, or administration and if so why?

Are there any other aspects of your working life that you value?

Please tell us if there are any aspects of your job that are currently causing you concern?

If you could change three things about your job, what would they be?

If you could get a job outside universities would you take it? Can you please explain the reasons for your answer in the box below?

If there is anything else you consider to be important about your job please tell us about it in the box below.

A4.3 Further detail for the thematic analysis in Study 2

Blow is a table of principal themes, sub-themes, and illustrative quotes that used in Study 2 by using Thematic Analysis to interpret data.

Tables of Principal themes and sub-themes of qualitative research Study 2

Theme 1	
Features of Academic Job	Illustrative Quotes
Sub-theme 1 Relationship between Lecturer and Students	Seeing students developed, begin to understand complex ideas and even to begin to think like psychologists. (Participant 1, lines 10-11) With research students they go from students to research colleagues and that is great.(Participant 1, lines 12-13)
Sub-theme 2 Colleagues and Students	Colleagues and students. I have some wonderful colleagues that I enjoy working and socialising with. Similarly it is a real privilege to see students develop and grow when you are working with them. I have met some really lovely people over the years through work. I also enjoy the opportunities I have had to travel and work in other countries through work and to do research with colleagues overseas.(Participant 1, line 32-35) Talking to colleague, having away days, discussing and sharing experience about teaching and research. (Participant 3, line 17). Relationships with colleagues /discussions and support (Participant 2, line 15) my colleagues (Participant 10, line 15)
Sub-theme 3 Flexibility of the Academic Role	the flexibility to work from home (subjective timetabling). (Participant 17, line 26) the ability to have a lengthy summer holiday as I have family abroad and this allows me to see them. (Participant 12, line14)
Sub-theme 4 Increasing Stress Level	MOST CHALLENGING -Large class sizes- difficult to get that informality/interaction with large classes (e.g.50+). (Participant18, lines 9-10) I feel very stretched; too much teaching and marking; too many students; not enough time to prepare or to mark adequately and give pastoral support. (Participant 15, lines 5-6)

Sub-theme 5 *Suggested changes to reduce stress and improve the Academic's Role*	I would like to see more capable, engaged students entering courses I would scrap the coming changes to HE I would ensure a better split between teaching/research time through work loading timetabling etc.(Participant 12,lines 18-20) More predictability about student numbers. Better communication between faculties. More opportunities for research and scholarly activities.(Participant 16, lines 19-20) 1. Have more incentives/ opportunities for promotion (e.g. to Principal lectures) for research and writing. 2. Have a work planning system which *accurately* represents and reflects actual time taken on teaching modules etc. 3. Strengthen and develop areas that are doing well - not least by appointing senior individual(s) who will harness and drive a research culture where this is lacking.(Participant 18, lines 34-38)

Theme 2	
Coping with Stress at Work	Illustrative Quotes
Sub-theme1- *Positive coping techniques to deal with stress*	Seeking support from colleagues (Participant 11, line 9) Discuss with colleague(Participant 6,line 8) Talking to colleague and manager (participant 16,line 7) Don't take any of it too seriously and remind yourself of the autonomy and creativity that exists still in working in the HE. (Participant 22, lines 8-9)
Sub-theme 2- *Negative coping strategies*	clenching teeth, sleep deprivation and longing for the end of term. (Participant 20, line12) I have a tendency to blame myself (perhaps unfairly for not keeping on top of things, which result in me working harder/longer hours. (Participant 18, lines 12-13) Not really, - a glass or two of wine at home in the evening? (Participant 21, line8)

Theme 3	
Positive and Negative Feelings around Research/ Scholarship	Illustrative Quotes
Sub-theme 1 *Identity as an academic*	The research and writing is a central part of my identity as an academic. To contribute actively to knowledge (rather than regurgitate other people's ideas) is something that inspires me. At the moment research/scholarly activity is an area which should be supported and encouraged far more than it is at the moment (Participant 18, lines 15-17) This is what I enjoy about the job but I feel I have increasingly little time for research (participant 12, line 9)
Sub-theme 2 *Research aspects of scholarship*	This is the most important of the job-the most rewarding. I live for this.(Participant 15, line 8)
Sub-theme 3	Interesting at present as I am just starting to publish substantial pieces of

Support for research/scholarship	work, which feels like quite an achievement.'(participant 11, line 11-12) Id like time to engage more in research. The demands of teaching are in increasingly making even scholarship difficult'(participant 22 , line 10-11).
Sub-theme 4 *Element of job dissatisfaction*	I came into an academic role as I was primarily interested in my subject area rather than the teaching element. I hoped to develop this area of my role. I feel that I have missed the boat on this aspect of the job as the time that was available to develop this had now been removed. When I first started I was asked to teach in a number of areas that I was not familiar with and had to do a huge amount of work to gain familiarity with the material. More established and research active staff are valued more and get teaching in their key areas. So I felt I was fighting on all fronts. I feel I have failed in this area of the job.(Participant23, lines 14-20) The feelings are overwhelming, however what research or scholarship after the university systematically destroyed research over the last 15 years by closing and demolishing existing research facilities, consequently taking research time off staffs' work plans and even scholarly activities linked to official roles being restricted in a way that the role can hardly be fulfilled. Talented staff who joined the university with good research reputations, if they apply to other English universities get pretty openly told that they are not qualified for 'proper research based institutions' after such a time at university. 40 hours off the teaching load for research activities, with the expectation that 2 peer reviewed papers will be published is ridiculous. The 40 hours (x2) do not cover the time to write to high quality publications! When however, is the research to be done. (Participant 20, lines 15-24)
Sub-theme 5 *Time pressure*	Id like time to engage more in research. The demands of teaching are increasingly making even scholarship difficult.(Participant 22, lines 8-9) Unfortunately, time is usually constrained, so this bit is quashed into gaps, unless I have a specific project that I can work with deadlines, especially external deadlines.(Participant 29, Lines 12-13 or 14)
Sub-theme 6 *Funding*	Funding for research is now scarce so getting external money for research is a real challenge.(Participant 1, lines 26-27). Lack of time and internal funding for research and other scholarly activity.(participant 18,line 33)

Theme 4	
Administrative Loads	Illustrative Quotes
Sub- theme 1 *Burden of administration*	A necessary evil.'(Participant, 12, line 12) necessary evil but sometimes assume a life of their own-gets out of hand.'(participant2, line 10) Administration should be done by administrator not academics.(Participant 8, line12)
Sub- theme 2 *Increasing administration*	There is nothing rewarding- it is the job of an administrator. I have trained to be a researcher and lecturer not a secretary.'(Participant 15, lines 13-14) Rewarding: ? I didn't become an academic to spend my life typing numbers into grade book. Challenging: the frustration in filling in sheet after sheet of paper to say a task has been done rather than being trusted and allowed to tick a box / sign to say it has been completed. The whole exercise takes so much effort and time that it is the task and not the underlying reason that drives the process. Quality control sometimes needs to look at the system - not just at the output. (Participant 17, lines 18- 23)

Sub- theme 3 *Seeing positive in a negative*	It is challenging because it is time consuming, it is rewarding because it is still part of our help/contribution to students' education.(Participant 3, lines 18-19)

Theme 5	
Task Preferences in Academic Role	**Illustrative Quotes**
Sub-theme 1 Teaching priority	teaching- that's what I joined the uni to do.(Participant 2, line 13).
Sub-theme 2 Teaching and research	Teaching and research are my favourite parts because that is what I am most enthusiastic about. (Participant 3, line 16). Research and teaching are synergic... both complement the other greatly if given the appropriate support (time, resources, and encouragement).(Participant 18, line 24-25).
Sub-theme 3 Balances of work roles	A healthy mixture, cross fertilise each field. The absence of one of them (especially research) does compromise the others!(Participant20, lines 26-27). I value all of them and find them equally rewarding in different ways.(Participant 16, line 13). I think they all fit together, to be honest.(Participant 14, line 16).

Theme 6	
Leaving Academic Environment	**Illustrative Quotes**
Sub-theme 1 Job satisfaction	I' m happy with my current job at the moment'(Participant 16, line20). I couldn't think of any occupation that I would find attractive outside higher education.'(Participant 18,line 39) No (unless the pay was irresistible!). I've been there and done that with most other things and I like and feel privileged to be part of university life.'(Participant 28, lines 18-19) I've worked all my life in HE, so the thought of life outside it is almost unthinkable. Perhaps as a copy-editor for some leading publisher?(Participant 21, lines 22-23)
Sub-theme 2 Job dissatisfaction	At the drop of a hat. I am very disillusioned with university work. There is too much administration and too many students to give them enough time. I am constantly under pressure. I would like to get a job which was not as stressful.(Participant 5, lines 22-25) Yes I am from a practice not an academic background. I have failed to establish a research element to my work. I am stuck. I want to go somewhere and do something useful. I feel we have conned a generation of students. I feel conned (Participant 23, lines 31-33) Yes. I am sick of being in places where I am treated as a dogsbody and idiots are promoted above me.(Participant 24, lines 24-25)

Faculty of Development and Society

Application for Research Ethics Approval
Staff and Postgraduate Research Students

Section A

Important Note- If a previously submitted research proposal answers the methodology questions in this section, please include a copy of the proposal and leave those questions blank. You MUST however complete ALL of Section B

1. **Name of principal investigator:** Mitra Darabi
   Faculty: Development and Society
   Email address: dsmd1@exchange.shu.ac.uk

2. **Title of research:** Character Strength and Stress Management in Academic Staff: A Positive Psychology Perspective

3. **Supervisor if applicable:** Prof. Ann Macaskill
   Email address: a.macaskill@shu.ac.uk

4. **ENT number if applicable:**

5. **Other investigators (within or outside SHU)**

Title	Name	Post	Division	Organisation

6. **Proposed Duration of Project:**
   Start date: May 2012   End Date: June 2012

7. **Main purpose of Research:**
   ✓   Educational qualification
   ☐   Publicly funded research
   ☐   Staff research project
   ☐   Other (Please supply details)

8. **Background to the Study and Scientific Rationale** (500 words)

This study is part of a larger programme of research examining stress in academics and the role of psychological strengths in assisting academics cope better with the stress they experience. A quantitative study assessing stress levels has already been completed. Quantitative methods are most commonly used to examine stress and while these instruments supply reliable assessments of stress levels, they do not allow for an in depth understanding of the nature of the stress being experienced (Gmelch & Burns, 1994).Therefore, using a qualitative methodology besides the quantitative one already implemented in this research programme will allow more details of academics, perceptions of occupational stress to emerge.

Study participants will be invited to complete an increasing well-being training package that comes from positive psychology. One way that positive psychology aims to increase well-being is through behavioural change interventions (Lyubomirsky, Sheldon, & Schkade, 2005; Seligman, Steen, Park, & Peterson, 2005; Sheldon & Lyubomirsky, 2006). Positive psychology interventions are cognitive and behavioural strategies that individuals can be taught to use to increase their well-being (Fredrickson, 2008; King, 2008; Sin & Lyubomirsky, 2009). Research suggests that positive psychology interventions; for example the Three Good Things exercise can increase well-being (Fordyce, 1977; Lyubomirsky, Dickerhoof, & Bohem, 2011). One advantage of many of the positive psychology interventions is that they can easily be tailored to meet individual needs. They also tend to be economical to implement, being short, and are applicable either online or with no individual interactions in a self-help format (Seligman et al., 2005). The current study has opted for the Three Good Things exercise intervention delivered in a self-help format as this has been shown to reduce stress and increase emotional well-being amongst academics (Seligman, 2002). How individuals feel about completing these positive psychology exercises has not been assessed previously and this study will do this.

Participants will be sent the instructions for the intervention in a self-help format, one week in advance of a focus group and they will also complete baseline measures of stress, well-being, mental health, and character strengths, which they send back to the researcher in a prepaid envelope. Between receiving the material and the focus group they will be asked to implement the exercises for five working days and to bring the completed materials to the focus group. The aim of the focus group is to examine how these academics experienced the positive psychology intervention, to see whether they felt it was relevant for their work experience and to explore how it could relate to their experience of what they found to be stressful in the workplace. After the focus group the

baseline measures will be completed again by each participant to allow assessment of the effectiveness of the intervention.

References:

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9 Has the scientific / scholarly basis of this research been approved? (For example by Research Degrees Subcommittee or an external funding body.)

        ✓ Yes,RF2, Study 1, and Study 2 completed
- [ ]   No - to be submitted
- [ ]   Currently undergoing an approval process
- [ ]   Irrelevant (e.g., there is no relevant committee governing this work)

10 Main Research Questions

How to academics evaluate the experience of undertaking a positive psychology self-help intervention designed to reduce stress?
Is such an intervention relevant to the type of stress they experience in their daily work?

11.   Summary of Methods including Proposed Data Analyses

The design is as follows:

Volunteers will receive a self-help stress-reduction package (three good things exercise) which will take around 10 minutes per day for 5 working days to complete. In addition they will be asked to complete baseline measure which will take between 5-10 minutes. One week later, they will be asked to attend a focus group to discuss their experience of completing the measure and its relevance for dealing with the sort of stress they typically experience at work. This will be tape recorded. They will also complete the same package of measures as at baseline before the focus group begins. Measures: Perceived Stress Scale (PSS) (PSS; Cohen & Williamson, 1988), The Gratitude Questionnaire (GQ; McCullough, Emmons, & Tsang, 2002), General Health Questionnaire (GHQ-12; Goldberg & Williams, 1988), Positive and Negative Affect Scale (PANAS) (PANAS; Watson, Clark, & Tellegen, 1988), and the Satisfaction with Life Scale (SWLS; Diener, Emmons, Larsen, & Griffin, 1985).

The Three Good thing exercise: This exercise will ask participants to write the Three Good Things that went well every day for five days and they also reflect why it happened (Seligman,et al., 2005).

Study Design and Data analysis

This study can be regarded as using mixed methods. It is quantitative study in terms of our base line measures mentioned above and also we will have a followed up measures at the focus group. A repeated measure ANOVA will be used for this analysis. The qualitative element is the focus group. The data will be audiotaped and will be interpreted by thematic analysis (Braun &Clarke, 2006).

Section B

1. Describe the arrangements for selecting/sampling and briefing potential participants.

An advert will be posted in staff electronic newsletter to recruit academic staff and participants that volunteered to participate in a study that had to be postponed will also be approached. As it is a focus group, only 6-10 participants are sought. Full instructions about what is involved will be given to participants in advance.

2. What is the potential for participants or third parties to benefit from the research? More knowledge of how individuals cope well with stress will enable health education material and interventions to be developed for the benefit of all academic staff to reduce stress. All of the actual participants will have the opportunity to benefit from an intervention that has previously been shown to be effective in other work settings and with students. They will also have the opportunity to express their views of the experience and to suggest improvements for the future. .

3. Describe any possible negative consequences of participation in the research along with the ways in which these consequences will be limited.
It is not predicted that participation in the focus group discussion or the written exercises will result in any negative consequences. However, if the participant was to identify that is suffering from stress as a result of taking part then this may motivate them to seek help. The debrief will include complementary guidance about possible sources of help at Sheffield Hallam University like the Sheffield Hallam University Counselling Services and the Well-being Service.

4. Describe the arrangements for obtaining participants' consent.
It will be made clear to participants that we need to be able to identify their data so that we can match it up over time. We will ask participants to provide us with a code to identify them. We will keep a record of these codes and participant names in a locked

drawer and delete them at the conclusion of the data collection. Participants will be briefed, given an information sheet and then asked to sign a consent form. The consent forms will also be kept securely.

5. Describe how participants will be made aware of their right to withdraw from the research.

Participants will be informed that they are free to discontinue the focus group discussion at any time but we will retain the data they have supplied up to that point. Similarly participants can simply stop completing the exercises at any point and/or can elect not to submit the completed diary records of the exercises.

6. If your data collection requires that you work alone with children or other vulnerable participants have you undergone **Criminal Records Bureau screening**? Please supply details. NA

7. Describe the arrangements for debriefing the participants.

A summary of the results of the intervention and the focus group discussion will be made available to all participants possibly through their emails and they will also be told that they can request feedback from the researcher.

8. Describe the arrangements for ensuring participant confidentiality.

As it is a focus group discussion we will already know the names of our participants but their data will be analysed anonymously from transcription. Data will be stored securely on a password protected computer and paper questionnaires and consent forms and the names of participants will be in a locked cabinet. Once the data has been written up for publication the material will be transferred to the secure university research data archive and kept for as long as the journal requires then disposed of as confidential waste.

9. Are there any conflicts of interest in you undertaking this research? (E.g. Are you undertaking research on work colleagues; or in an organisation where you are a consultant?) Please supply details.
     None

10. What are the expected outcomes, impacts and benefits of the research?

This research addresses a gap in the literature. The results of focus group and the intervention will provide new techniques to promote well-being at work and reduce stress amongst academics.

11. Please give details of any plans for dissemination of the results of the research

Written up for PhD thesis and papers will be produced for publications and conference presentation. A brief report will also be provided for participants to consult via a medium such as staff electronic magazine which disseminated the original study.

SECTION C

RISK ASSESSMENT FOR THE RESEARCHER

7.   Will the proposed data collection take place on campus?

    ✓   Yes   (Please answer questions 4 and 6 only)
    ☐☐   No   (Please complete <u>all</u> questions)

8.   Where will the data collection take place?
    (Tick as many as apply if data collection will take place in multiple venues)

☐☐ Own house/flat	☐	☐Residence of participant
☐☐ School	☐	☐Business/Voluntary Organisation
☐☐ Public Venue (e.g. Youth Club; Church; etc)		
☐☐ Other (Please specify) _____		

9.   How will you travel to and from the data collection venue?

    ☐☐ On foot   ☐☐ By car   ☐☐ Public Transport
    ☐☐ Other (Please specify) _____

Please outline how you will ensure your personal safety when travelling to and from the data collection venue: NA

10.   How will you ensure your own personal safety whilst at the research venue?
  Not applicable

11.   If you are carrying out research off-campus, you must ensure that each time you go out to collect data you ensure that someone you trust knows where you are going (without breaching the confidentiality of your participants), how you are getting there (preferably including your travel route), when you expect to get back, and what to do should you not return at the specified time. Please outline here the procedure you propose using to do this:

12.   Are there any potential risks to your health and wellbeing associated with either (a) the venue where the research will take place and/or (b) the research topic itself?

             ✓ ☐☐   None that I am aware of

☐☐   Yes (Please outline below)

7.   Does this research project require a health and safety risk analysis for the procedures to be used? No

If YES current status of Health and Safety Risk Assessment.

I confirm that this research will conform to the principles outlined in the Sheffield Hallam University Research Ethics policy.

I confirm that this application is accurate to the best of my knowledge.

Principal Investigator's signature	Mitra Darabi
Date	14.05.2012

Supervisor's signature (if applicable)	Ann Macaskill
Date	

A5.1Participant information sheet for Study 3

Subject: Exploring the acceptability of a positive psychology intervention in increasing well-being

I am a PhD student in psychology at Sheffield Hallam University. My supervisor is Professor Ann Macaskill, contact details are given below. Positive psychology is a new approach that is concerned with ways of improving the health and well- being of the general population not just those who are ill. In recent years, the demands on academic staff have increased considerably with a resultant increase in work-related stress (Kinman, 2008). Stress intervention studies highlighted the importance of the using interventions at work as a stress management technique in UK organisations (Giga et al., 2003). This exercise is the final study in a research project aiming to explore the acceptability of a positive psychology intervention in academic staff.

Positive psychology has identified a range of character strengths that individuals have but they may be unaware of which can be used to help them cope in stressful situations. In our first study, we found that academics with high levels of gratitude experienced less stress at work. Now, we are interested in exploring whether positive psychology interventions can be acceptable among academics.

To this end you will be asked to complete an on line package of measures of stress, gratitude, and psychological well-being and health which should take around 5-10 minutes to complete.

1. We would like you to complete the online measures first and supply your name & email address to us so we can send you a positive psychology intervention which is designed to boost well-being at work. Full details of the intervention will be supplied. We require names so we can match your data and addresses so that we can send you materials. Names and addresses will be removed from the questionnaire and kept separately in a locked drawer until the study is completed and then destroyed.

2. After you have read the intervention material (5-10 minutes), you will be asked to complete a short diary at the end of each working day for 5 days which should take around five minutes to complete.

3. You will then be invited to attend a focus group at a mutually convenient time to complete a paper questionnaire to evaluate any changes that may have occurred in your scores, return your completed diary, and to discuss your participation.
4. Two weeks after the focus group we will email you a final set of questions to complete online so we can assess whether any changes have been maintained.

You can withdraw at any time during the study but once data has been anonymised it cannot be withdrawn. All data will have been anonymised three weeks after the focus group. The study has ethical approval from the D & S REC. If you have any queries regarding this research, please do not hesitate to contact us. This is a new approach and we really appreciate your help.

To begin the questionnaire please click the link below

https://ds.shu.ac.uk/survey2/?q=4F719C87AZVQ

Kindest regards
Mitra Darabi

E-mail address: Mitra.Darabi@student.shu.ac.uk.

Supervisor contact details: a.macaskill@shu.ac.uk

A5.2 Debriefing

<u>Employee Support Helpline</u>

If by participating in this study you have identified that you are having any difficulties with any aspect of your work, or are feeling under pressure or unhappy, the helpline can offer support and advice as a first point of contact. Independent impartial volunteer advisors are available.

Working hours: 9am to 5pm Monday to Friday and offers a 24 hour voicemail service at all other times.

Contact detail: Telephone 0114 225 6161

<u>Staff Counselling Service</u>

The University provides a small resource so that can offer counselling to University staff within the Counselling Service.

Telephone: 0114 225 381

A5.3 Consent form

Character strengths and stress management in academic staff: A positive psychology perspective.

The researcher has introduced the aim of study by email to me. I have had the opportunity to propose my ideas due to academic job. Any questions have been answered to my satisfaction.

I agree to participate in this research programme, and understand that I am free to withdraw at any time and withdraw any information. I understand that there will be no penalty for this.

I give my permission for extracts from the things I say to be used in final report, providing my identity is kept confidential.

Signature

Name

Date

Appendix 6 Study 3: Data collection:

A6.1. Quantitative measurements

Identifier: Can you please provide an identifier so we can match your data. To do this please uses the first 2 letters of your mother's first name and the last three numbers of your mobile phone number.

A6.1.1 Perceived Stress Scale (Cohen & Williamson, 1988)

The questions in this scale ask you about your feelings and thoughts during the last month. In each case, please indicate how often you felt or thought a certain way by circling the number.

1. In the last month, how often have you been upset because of something that happened unexpectedly?

   0=Never   1=Almost never   2=Sometimes   3=Fairly often   4=Very often

2. In the last month, how often have you felt that you were unable to control the important things in your life?

   0=Never   1=Almost never   2=Sometimes   3=Fairly often   4=Very often

3. In the last month, how often have you felt nervous and "stressed"?

   0=Never   1=Almost never   2=Sometimes   3=Fairly often   4=Very often

4. In the last month, how often have you felt confident about your ability to handle your personal problems?

   0=Never   1=Almost never   2=Sometimes   3=Fairly often   4=Very often

5. In the last month, how often have you felt that things were going your way?

   0=Never   1=Almost never   2=Sometimes   3=Fairly often   4=Very often

6. In the last month, how often have you found that you could not cope with all the things that you had to do?

   0=Never   1=Almost never   2=Sometimes   3=Fairly often   4=Very often

7. In the last month, how often have you been able to control irritations in your life?

0=Never   1=Almost never   2=Sometimes   3=Fairly often   4=Very often

8. In the last month, how often have you felt that you were on top of things at work?

0=Never   1=Almost never   2=Sometimes   3=Fairly often   4=Very often

9. In the last month, how often have you been angered because of things that were outside of your control?

0=Never   1=Almost never   2=Sometimes   3=Fairly often   4=Very often

10. In the last month, how often have you felt difficulties were piling up so high that you could not overcome them?

0=Never   1=Almost never   2=Sometimes   3=Fairly often   4=Very often

A6.1.2 Satisfaction with Life Scale (SWLS)

(Diener, Emmons, Larsen, & Griffin, 1985).

Please indicate your agreement with the following items by ticking the box next to the item:

	Strongly Disagree 1	Disagree 2	Slightly disagree 3	Neither agree nor disagree 4	Slightly Agree 5	Agree 6	Strongly Agree 7
In most ways my life is close to ideal							
The conditions of my life are excellent							
I am satisfied with my life							
So far I have got the important things I want in life							
If I could live my life again, I would change almost nothing							

A6.1.3 The General Health Questionnaire

(Goldberg & Williams, 1988)
We would like to know how your health has been in general, over the past few weeks.
Please answer all questions simply by underlining the answer which you think most
nearly applies to you.

Have you recently:

1. Been able to concentre on whatever you're doing?			
1. Better than usual	2. Same as usual	3. Less than usual	4. Much less than usual
2. Lost much sleep over worry?			
1. Not at all	2. No more than usual	3. Rather more than usual	4.Much more than usual
3. Felt that you are playing a useful part in things?			
1. More so than usual	2. Same as usual	3. Less useful than usual	4. Much less useful
4. Felt capable of making decision about things?			
1. More so than usual	2. Same as usual	3. Less so than usual	4. Much less capable
5. Felt constantly under strain?			
1. Not at all	2. No more than usual	3. Rather more than usual	4.Much more than usual
6. Felt you couldn't overcome your difficulties?			
1. Not at all	2. No more than usual	3. Rather more than usual	4.Much more than usual
7. Been able to enjoy your normal day-to day activities?			
1. More so than usual	2. Same as usual	3. Less so than usual	4. Much less than usual
8. Been able to face up your problems?			
1. More so than usual	2. Same as usual	3. Less able than usual	4. Much less able
9. Been feeling unhappy and depressed?			
1. Not at all	2. No more than usual	3. Rather more than usual	4.Much more than usual
10. Been losing confidence in yourself?			
1. Not at all	2. No more than usual	3. Rather more than usual	4.Much more than usual
11. Been thinking of yourself as a worthless person?			
1. Not at all	2. No more than usual	3. Rather more than usual	4.Much more than usual
12. Been feeling reasonably happy, all things considered?			
1. More so than usual	2.About same as usual	3. Less so than usual	4. Much less than usual

A6.1.4 Positive and Negative Affect Scale (PANAS)

(Watson, Clark, & Tellegen, 1988)

This scale consists of a number of words that describe different feelings and emotions. Read each item and then mark the appropriate answer in the space next to that word. Indicate to what extent in the past few weeks you have felt this way
 Use the following scale to record your answers.
1=.Very slightly or   2=.A little   3=. Moderately   4=.Quite a bit   5=. Extremely
not at all

	Very slightly or not at all	A little	Moderately	Quite a bit	Extremely
1.Interested	1	2	3	4	5
2.Distressed	1	2	3	4	5
3.Excited	1	2	3	4	5
4.Upset	1	2	3	4	5
5.Strong	1	2	3	4	5
6.Guilty	1	2	3	4	5
7.Scared	1	2	3	4	5
8.Hostile	1	2	3	4	5
9.Enthusaistic	1	2	3	4	5
10.Proud	1	2	3	4	5
11.Irritable	1	2	3	4	5
12.Alert	1	2	3	4	5
13.Ashamed	1	2	3	4	5
14.Inspired	1	2	3	4	5
15.Nervous	1	2	3	4	5
16.Determined	1	2	3	4	5
17.Attentive	1	2	3	4	5
18.Jittery	1	2	3	4	5
19.Active	1	2	3	4	5
20.Afraid	1	2	3	4	5

A6.1.5 The Gratitude Questionnaire (GQ)

(McCullough, Emmons, & Tsang, 2002)

Please indicate your agreement with the following items by ticking the box next to the item.

Using the scale below respond to each statement by circling the number that corresponds with how you would normally describe yourself.

1= Strongly disagree	**2**= Disagree	**3**= Slightly disagree
4= Neutral	**5**= Slightly agree	**6**= Agree
7= Strongly agree		

1. I have so much in life to be thankful for.	1	2	3	4	5	6	7
2. If I had to list everything that I felt grateful for, it would be a very long list.	1	2	3	4	5	6	7
3. When I look at the world, I don't see much to be grateful for.	1	2	3	4	5	6	7
4. I am grateful to a wide variety of people.	1	2	3	4	5	6	7
5. As I get older, I find myself more able to appreciate the people, events, and situations that have been part of my life history.	1	2	3	4	5	6	7
6. Long amounts of time can go by before I feel grateful to something or someone.	1	2	3	4	5	6	7

Appendix 7 Study 3: Qualitative research: Research diary

A7.1 Instruction for research diary
The Three Good Things Intervention (Please read carefully)

Research has shown that most people spend much longer thinking about the things that have gone wrong in their lives than on what they have achieved and what has gone well. It is thought that this may have had some sort of evolutionary advantage in terms of us learning to correct mistakes. However in our daily lives this tendency to focus on the negatives has been shown to increase our stress levels and decrease our happiness and feelings of well-being.

At the end of the working day, when we reflect on our day research suggests that most people think about what has gone badly or on what they have not achieved. Typical examples of thoughts are, "Yet again I did not find time to finish those revisions to the paper," I should have returned that student's call, What I mess I made of that conversation. I still have not revised that lecture, I still need to". The list can be endless. Sometimes we are not even really aware that we are doing it, but it is there in the mental lists we create of tasks to be tackled the following day. What is happening when we mentally review our working day in this way is that by focussing on what has gone badly or on what we have not achieved we are actually increasing our stress levels. You can think of this tendency as a bad habit that humans have and it appears to be an innate tendency according to evolutionary psychologists. There may have been some survival value historically in focussing on what has not gone well but current research suggests that in modern times this tendency is associated with increases in anxiety, depression, and general lack of well-being. When we are applying this negative reflection regularly at the end of our working day, research has been shown that it detracts from our well-being. We want you to try a different approach and see whether it brings benefits to you.

The exercise is actually very simple. What is required is that you redirect your attention to positive thoughts and away from negative thoughts.

At the end of your working day we want you to take a few minutes to identify three good things about your day (This could be anything about your day). Sometimes it may be that you have got through a difficult day that you have coped with a lot of adversity. However, when we start thinking this way most people find it relatively easy

to identify good things. **We want you to write down the good event in the attached diary and then write a little bit about what made it a good thing.**

Once you have completed this your working day is finished. If you are in the habit of discussing your working day with family, friends, and so forth please try to keep focussing on the positives about your day. It can be helpful to rephrase how you ask about the working day from,

"How was your day," to "What was good about your day?" Focusing initially on the positives in this way has been shown to improve communication, after all we do tend to get a bit sick of people complaining to use while positives messages tend to be more interesting.

While we are asking you to complete the diary for only 5 working days it is a technique that you may want to continue using.

Can you please email me or print off your completed diaries to the focus group discussion.

Many thanks for the taking part in this study.

A7.2 Research diary: The Three Good Things Exercise Example

Identifier: Can you please provide an identifier so we can match your data. To do this please uses the first 2 letters of your mother's first name and the last three numbers of your mobile phone number.

Daily Tasks: Please enter three good things that have happened today and why they were good in the boxes provided.

Example : *I managed to finish marking before the moderation deadline.* **Reason(s):** I took the time and made the effort and now I feel good.		
Positive Experience 1: Reason(s):	**Positive Experience 2: Reason(s):**	**Positive Experience 3: Reason(s):**

Appendix 8 Study 3: Qualitative research: Focus group discussions

A8.1 Focus group questions

How did you find the Three Good Things exercise valuable?

Was it useful?

How easy did you find it to do?

Were there any down sides to completing it (if they do not spontaneously identify any negatives)?

Do you think approaches like this can help with coping with stress at work?

Any other comments?

Sheffield Hallam University

SHARPENS YOUR THINKING

Our Ref   AM/SW/24-2009

Mitra Darabi
Psychology PhD
c/o Southbourne
Collegiate Crescent Campus

5th October 2009

Dear Mitra

Request for Ethical Approval of Research Project

Your research project entitled " Character Strength and Stress Management in Academic Staff: A Positive Psychology Perspective " has been submitted for ethical review to the Faculty's rapporteurs and I am pleased to confirm that they have approved your project.

I wish you every success with your research project.

Yours sincerely

Samm Wharam
Secretary
Faculty Research Ethics Committee

Sheffield Hallam University

SHARPENS YOUR THINKING

Our Ref   AM/SW/8-2011

14 March 2011

Mitra Darabi
Apartment 53 Cube
189 Shoreham Street
Sheffield
S1 4QU

Dear Mitra

Request for Ethical Approval of Research Project

Your research project entitled **"Character Strength and Stress Management in Academic Staff: A Positive Psychology Perspective"** has been submitted for ethical review to the Faculty's rapporteurs and I am pleased to confirm that they have approved your project.

I wish you every success with your research project.

Yours sincerely

Secretary
Faculty Research Ethics Committee

Sheffield Hallam University

SHARPENS YOUR THINKING

Our Ref   AM/SW/27-2011(R)

Mitra Darabi
Apartment 53 Cube
189 Shoreham Street
Sheffield, S1 4QU

30th May 2012

Dear Mitra

Request for Ethical Approval of Research Project

Your research project entitled "Character Strength and Stress Management in Academic Staff: A Positive Psychology Perspective" has been submitted for ethical approval to the Faculty's reviewers and I am pleased to confirm that they have approved your project.

I wish you every success with your research project.

Yours sincerely

Secretary
Faculty Research Ethics Committee