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THE PERCEPTIONS OF SOCIAL STRUCTURES AS A PREDICTOR TO LEVELS
OF JOB SATISFACTION, JOB BURNOUT AND GENERAL MENTAL HEALTH IN
A TRAUMATIC WORKING ENVIRONMENT: A LOOK AT DUBLIN CITY FIRE
FIGHTERS

BY

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A thesis submitted in partial fulfilment of
the requirements for the degree of
BA (Hons.) in Psychology
at the
National College of Ireland
March 2015

ACKNOWLEDGEMENTS

I would like to express my sincere gratitude to my supervisor Dr. Philip Hyland for his constant support, understanding and encouragement through my study and research. Without his outstanding patience the completion of my thesis work would of been an overwhelming process.

I would also like to thank all the other lecturers and staff in the National College of Ireland for their help and influence during my academic career in the college.

Another sincere thank you to the participants recruited from within the ranks of the Dublin City Fire Brigade, as without their cooperation and involvement this study would not be possible.

Lastly I would like to thank my family for their support during my period at NCI.

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Abstract

According to Mitchell et al. (1990), the emergency service field is one of western societies most challenging and potentially rewarding professions.

The exposure to potentially traumatic experiences on a regular basis can encourage the development of mental health complications, including high levels of job burnout, low levels of job satisfaction, negative well-being and potentially post traumatic stress disorder.

Although previous research has shown that in most cases, a critical incident or traumatic event is the driving force behind the development of PTSD, the more recent of the research has highlighted the importance of work environmental stressors, and their importance in the development and maintenance of psychological distress, job burnout and job satisfaction in first response personnel (Collins et al, 2003; Maia et al, 2007). Collins and Gibbs (2003) found that the most influential stressors among police officers were not related to a traumatic experience or critical incidents, but rather relate to concerns with the working environment.

1.Introduction

According to Mitchell et al. (1990), the emergency service field is one of western societies most challenging and potentially rewarding professions. Unfortunately many emergency service workers cannot withstand the persistent occupational stress and pressure. The exposure to potentially traumatic experiences on a regular basis can encourage the development of mental health complications, including high levels of job burnout, low levels of job satisfaction, negative well-being and potentially post traumatic stress disorder. With jobs in the emergency services carrying such high levels of stress or potential danger it is important to understand what can and will affect the emergency personnel who work tirelessly to help the population.

1.1 Perception of Social Support

Thompson (1995) speaks about social support consisting of social relationships that provide, or have the potential to provide, resources that are both valuable on an interpersonal level and a materialistic level to the recipient. Counselling, service and information access, the development and acquisition of skills, and the sharing of responsibilities during tasks. Typically the term social support is well known and many would agree that it plays an important role in influencing well-being in individuals (Lopez et al, 2011). With an in-depth look at interpersonal resources we can see a range of emotional, informational and instrumental support, which by themselves, or in combination with each other and more concrete material resources can help an individual cope and adapt to life events which they find stressful, and can support the individual's well being positively (Barrera, 1986; Dunst & Trivette, 1985). Emotional support was described by Thompson (1995) to relate to the empathy, the love or caring or the trust an individual receives through social support, where information access, advice, suggestions all fell under informational support. Lastly Thompson spoke of instrumental support, which was the sharing of tasks and responsibilities, and skill development among others (Lahey & Cohen, 2000; Thompson, 1995).

While Barrera (1986), Thompson (1995) and Lahey and Cohen (2000) are all in general agreement through their literature about the complexity of social support as a multidimensional construct, there is not as much agreement in how best to describe and measure social support (Lopez et al , 2011). But it is agreed and represented in literature by both Gottlieb and Barrera that there are at least three broad categories' of social support (Gottlieb, 1983; Barrera, 1986). The three categories look to describe social support under (1) social connectedness, (2) Perceived social support and (3) actual social support. Typically, researchers not only focused on the structural aspects, like number of social support sources, but also the quality of the nature of the supportive relationships within an individual's support network, such as the individual's satisfaction with the relationship. (Barrera, 1986; Lahey et al, 2000; Thompson, 1995).

The concept of social connectedness was referred to by Sarason (1974) as the quantity and quality of interpersonal or social connections that an individual has with others surrounding them, which Kaul and Lahey (2003) say include both formal and informal

socialisation (Kaul et al, 2003; Sarason, 1974). Sarason referred to family members and relatives, friends and neighbours as informal relationships, where the formal side of an individual's relationships include mental health professionals, counsellors and teachers among others. The second support construct studied was actual or enacted social support, which focuses more on an individual's report of support they have felt they received. Some have said that the measurement of enacted support are more relevant in the examination of proximal influence of social support in situations where an individual is known to experience significant stress (Barrera, 1986), but others argue that the findings of the positive influence of enacted social support are mediated and determined by the perceptions of social support or perceived social support (Wethington et al, 1986).

Perhaps the most prominently studied concept of support is the perception of social support, which refers to an individual's cognitive evaluation of the support they feel they have, to promote coping and as a result, reduce the negative effects of stress on social outcomes. However measures of perceived social support have been known to differ in relation to their measurement of an individual's appraisal of the availability and/or quality of the support (Barrera, 1986; Gjesfjeld et al, 2010). The measures of perceived social support have been found to have the strongest relationships with reduced levels of psychological distress and stress, plus measures of improved well-being. (Barrera, 1986; Gjesfjeld et al, 2010; Procidano et al, 1983; Lyons et al, 1998; Rodriguez, et al, 2010; Russell et al, 1987; Sarason et al, 1987). Despite concerns of potential self-reporting bias (Gore, 1981). There are several distinct models that try to explain, in theory, how social support structure can influence a varying range of aspects in relation to social support relationships and the interactions within these relationships, as well as the influence and links they have with stress, the ability to cope with stress and both physical and emotional wellbeing (Barrera, 1986; Lakey et al, 2000; Lopez et al, 2011; Wills et al, 2012).

Lakey and Cohen reviewed work completed on social support theory and the measurement of support and stated that most, if not all, of the theoretical models of social support guiding the research that has been conducted to date, work from the basis that social support can be categorised into three perspectives of support: 1) relationship

perspective, 2) social constructionist perspective, and 3) stress and coping with stress perspective (Lakey et al, 2000). The third perspective,) stress and coping with stress, is very similar to the stress buffering model (Cassel, 1976), and is the most widely researched and studied theoretical model of social support. It argues on behalf of social support in relation to the buffer, to stress and its negative effects, it creates (Cobb, 1976). In the social buffering model, the individual's social support acts in facilitating the support recipient's coping, which in turn reduces the negative effects of stress on the individual's wellbeing. Even in the absence of the physical presence of support, an individual's cognitive perception of the available social support, has demonstrated the capability to reduce the negative impact of stress on an individual's wellbeing, and most recently Maupin (2010) emphasised the similarities between the perception of social support and its ability to act as a buffer in comparison to actual social support (Bovier et al, 2004; Campos et al, 2008; Castle et al, 2008; Gee et al, 2008; Gjesfjeld et al, 2010; Honey et al, 2005; Lin et al, 2009; Maupin et al, 2010; Vogel et al, 2005). However, in contrast to the stress and coping perspective, Lakey and Kaul find the social constructionist model states an individual's perception of support will have influence over their self esteem and identity, which will indirectly influence health and wellbeing (Kaul et al, 2003). Another key factor of the individual's conceptualisation, is that it is their own appraisal or perception of support, versus actual support that is received, that is more strongly linked to positive outcomes throughout a stressful situation, and perceived support is also theorised to have a direct effect on the desired outcome, regardless of the presence of actual stress (Sarason, 1974; Thompson et al, 2006). The relationship perspective is also highly important, as fundamental relationship processes are believed to be key factors that influence both the individual's perceived and actual support, as well as having a influence on the individual's well being (Lyons et al, 1998; Lopez et al, 2011; Toepfer, 2010).

In summary, previous research has concluded that social support is "a complex, multidimensional construct that is comprised of a set of related, but distinct constructs" (Lopez et al, 2010).

1.2 Job Satisfaction

Job satisfaction, or the concept of job satisfaction, has been defined in many ways. The

most used definition however, throughout organisational research is that of Locke (1976). "A pleasurable or positive emotional state resulting from the appraisal of one's job or job experiences" (Locke, 1976, p.1304). In 2003 Hulin noted that job satisfaction includes a multidimensional psychological response from an individual to their job, and that these responses can have cognitive, emotional and behavioural components (Hulin et al, 2003). The conceptualisation of job satisfaction containing three distinct components fits well with the typical social attitudes concept (Eagley et al, 1993). However there are a few difficulties with the above concept of job satisfaction. Firstly Hulin (2003) stated that social attitudes, generally tend to be weak predictors of specific behaviours (Hulin et al, 2003), which supports the earlier work of Eagley, Fishbein and Wicker, yet job attitudes are generally strongly and reliably related to the individual's relevant job behaviours (Eagley et al, 1993; Fishbein, 1980; Hulin et al, 2003; Judge et al, 2008; Wicker, 1969).

The research evidence has shown that job satisfaction shows a strong and consistent relation to the individual's wellbeing. The same studies have also shown a highly significant relationship between an individual's job and life satisfaction (Judge et al, 2008). It was speculated in previous research that there are three possible forms of this relationship, spillover, segmentation and compensation. Spillover concerns the spill over of job satisfaction into life satisfaction and vice versa. Segmentation, where job and life experiences are separate and have little to do with each other, and thirdly, compensation, where an individual who is dissatisfied within their jobs seek happiness and fulfilment in their non work life, or vice versa (Judge et al, 1994, 2008). Judge and Watanabe (1994) argue that people can be classified into one of these three groups and through their work found the majority of the surveyed U.S. workers fell into the spillover group. Given that a job tends to be a significant part of an individual's life, the correlation between job satisfaction and life satisfaction is understandable. Similarly it's understandable to expect non-work life satisfaction to effect job satisfaction. The research suggest that the relationship between both job and life satisfaction is reciprocal, and job satisfaction does effect life satisfaction, but just as importantly life satisfaction effects also effects the job satisfaction (Judge et al , 1993). Job satisfaction is also related to several other workplace behaviours, such as work attendance, turnover decisions, retirement decisions, psychological withdrawal, prosocial behaviour, job

performance and workplace incivility, which is a lack of respect (Hanisch et al, 1990,1991;Hom et al, 1979; Hom, 2001; Judge et al, 2001; Mount et al, 2006; Roznowski et al, 1992;Smith, 1977; Scott et al, 1985;Zalensy, 1985).

In relation to organisational employees and their management, maximising the wellbeing of the individuals is a vitally important issue. Hayes (2006) found that health care professionals who experience low levels of wellbeing at work, such as job burnout and low levels of job satisfaction, are more likely to leave to organisation (Hayes et al, 2006) and are more likely to provide a service of lower quality (Aiken et al, 2012). It was also found that low levels of job satisfaction are likely to both infiltrate and influence an individual's thoughts from the moment they wake to the moment they return home (Brief et al, 2002; Weiss, 2002). Recent studies into organisational wellbeing have studied positive and negative workforce elements in mental health and have stated that strategies to improve job satisfaction are more highly likely to support improved workforce wellbeing (Hayes et al, 2008; Scanlan et al, 2010).

To summarise, job satisfaction is an important and perhaps entrenched attitude, that penetrates cognitive, emotional and behavioural aspects of people's work and non work lives. This can accentuate the importance of job satisfaction as an attention worthy construct in organisational science as well as the importance of research to wellbeing generally. The reciprocal nature of an individual's job attitudes and well being shows the importance of understanding not just one, but the both constructs (Maguen et al, 2009).

1.3 Job Burnout

Burnout has often been studied as part of stress resulting from work, but to many it is the process that takes place as a result of continuously being physically and emotionally fatigued (Bakker et al, 2014; Rosenberg et al 2006; Schaufeli et al, 2003; Schaufeli et al, 2009). Cahalane (2008) has defined job burnout as, and linked it to low rates or productivity, low levels of job satisfaction, and attrition (Cahalane et al, 2008;Kirk-brown et al, 2004). Certain socio-demographic factors interact with work conditions and are even thought to influence certain individuals into experiencing job burnout, like age, gender or marital status (Angerer, 2003; Maslach et al, 2001; Sprang et al, 2007). The demographic characteristic which shows the most impact of significance is age.

Maslach found that younger workers had reported higher levels of burnout in comparison to their counterparts of over 40 years of age (Maslach et al, 2001). Part of the age effect can be caused by the familiarity the worker experiences with their job role and as a result experiences less stress.

Shirom (2008) explains that when a workers age and length of service increase, role ambiguity still has no direct affect on role performance, indicating that a more mature individual who is settled in their role and aware of expectation is far less likely to experience job burnout in comparison to their younger counterparts (Acker, 2003; Maslach et al, 1981; Shirom et al, 2008), but research in burnout states the importance of role ambiguity as a predictor of emotional burnout or exhaustion (Kirk-Brown et al, 2004). Similar studies conducted by Schwartz show that tenured workers report lower levels of absenteeism and report increased levels of job satisfaction (Schwartz et al, 2007). Rosenberg has measured job burnout in terms of physical and emotional exhaustion that is experienced, and can often result in an individual having a negative self concept, job attitudes and a loss of concern for clients or patience (Rosenberg et al, 2006).

Storey (2001), said that within an organisation that often neglects the promotion of healthy and supportive coping methods for work related stress, it is vitally important to view job burnout as a selective and multidimensional process (Gomez et al, 1995; Storey et al, 2001). It has been found that by conceptualising job burnout as an organisational responsibility, it shifts the proper stress regulation away from the individual to the social support structures within the organisation the individual is apart off (Anderson, 2000; Kirk-Brown et al, 2004). As stated by Storey (2001), Angerer (2003) also reports the importance an organisational structure within a workplace and the possible contribution to employee stress (Angerer, 2003; Storey et al, 2001). Other organisational issues that are outside the individuals' control, such as downsizing, budget control or cuts, and even the merging of organisations, can have an adverse effect on an individual's family and marriage and ultimately, can lead to increased levels of job burnout (Angerer, 2003; Maslach et al., 2001).

Burnout has been empirically tested among human service workers within fire fighters, paramedics, policing units, child protection services, social service workers in both

cities and rural areas, and even therapists (Anderson, 2000; Angerer, 2003; Cahalane et al, 2008; Gomez et al, 1995; Jenaro et al, 2007; Kee et al, 2002; Kim et al, 2008; Kuljk, 2006; Landsman, 2002; Schwartz et al, 2007; Sprang et al, 2007; Storey et al, 2001). The above studies state clearly that job related stress is a covariant of the support measures, worker coping ability, and the structure of the organisation. These studies also state that the workers who feel marginalised and disengaged from both clients and organisation suffer from higher levels of stress (Maslach et al, 2001). However Rosenberg (et al, 2006) stated that humans services workers with a positive organisational structure that promotes communication and promotes positive coping mechanisms show lower levels of stress and higher rates of productivity. Jenaro found that coping strategies can be considered a personal resource and are highly important in relation to an individual's ability to cope and prevent the stress' related to job burnout (Jenaro et al, 2007).

Maslach's work in 2001, explains that there are three dimensions to job burnout. Exhaustion, depersonalisation and inefficacy (Maslach et al, 2001). The first, exhaustion, refers to the emotional pressure the individual encounters from the working environment, which can strongly impact the service providers ability to interact with their clients or patients and their needs. Secondly, Maslach looked at depersonalisation, which is considered a conscious effort to create a separation between oneself and the clients or patience. Similarly, the third aspect Maslach speaks about is inefficacy, which refers to a reduction in personal accomplishment from work related activities. This feeling of reduction in accomplishment can leave a worker with a sense of uselessness to the organisation or patient (Maslach et al, 2001).

Other studies have shown that individual's with higher levels of education, within a helping profession, tend to be tasked with greater responsibilities and as a result of greater responsibilities their levels of both stress and burnout raise significantly (Maslach et al, 2001; Schwartz et al, 2007).

However there are many inconsistencies within the literature that has been reviewed. Some literature states that older age and longer periods of service correlate highly with higher levels of job burnout and mental fatigue (Collings et al, 1996; Schulz et al, 1995), and that service workers with higher levels of education experience job

autonomy at a higher rate, and as a result, reported higher levels of job satisfaction in comparison to the less educated co workers (Schulz et al, 1995).

Another interesting finding within burnout research is the effects burnout has on sleep, or more accurately the affect sleep has on burnout. Job stress and effort recovery require significant investment of an individual's self, in the form of job demand, throughout an average working day. These job demands experienced by the individual induce stress, which in turn can start mind-body arousal. If the individual perceives these work day demands as threatening, the individual reacts with anxiety (Spielberger et al, 2003).

Maslach also discusses how employees experiencing higher levels of stress are inclined to use alcohol or drugs more frequently, but also exercise and sleep less (Maslach et al, 1982).

Meijman's effort-recovery model suggests that work requires an employee to exert effort during the work day, and that this exertion of effort leads to certain load reactions in the employee. Whether these reactions be behavioural, physiological or subjective, the loads from the previously mentioned reactions can be reversed if the individual is given the chance to return to their normal state, where they are not confronted with demands and stress, which allows the individual to return to their pre-demand state (Meijman et al, 1998; Sonnetag, 2001). With research into the effects of work, in particular, work stress, and its eventual outcome, burnout, stating the importance the role of sleep plays in the effort recovery model, it is important that we note how the lack of sleep, eventually effects burnout. As it is found in research that insufficient effort recovery by individual's from work stress, leads to burnout and eventual mental and physical health short comings (Geurts et al, 2006).

From the above review of the literature, we can see that stress can lead to sleep problems, and one could say that burnout, as an adverse outcome from prolonged work stress, may elicit the same reaction, if not a more severe reaction (Jansson et al, 2006).

1.4 Mental Health

Mental health is the level of psychological well-being experienced by an individual, or an absence of a mental disorder, the psychological state of an individual who is functioning to a satisfactory level of both behavioural and emotional

adjustment(Bentley et al, 2013). Hildebrand (1984), found there are five unique stressors that relate to fire service personnel: Level of uncertainty, physical response to an alarm, interpersonal tension, exposure to human tragedy, and fear. 1) Level of uncertainty: when most people go to work during their lives they have some sort of idea what to expect during their work day. Butchers expect to cut meat, Bus drivers expect to drive a bus, and post men expect to deliver post. The vast majority of people have some control over their work day and what is involved, fire fighters however, are unaware to what the job will involve at the start of each day, and have no control over the unpredictable events during that day. 2) Physical response to an alarm: With the sound of an alarm, the individual's body prepares for the work ahead by flooding the body with adrenaline. If there is no need for physical work due to no fire or if a member of the team on an ambulance doesn't need to be physically active, the increased amounts of adrenaline, blood sugars, muscle tension and blood pressure remain in the individual's body, sometimes taking hours to return to a resting state. 3) Interpersonal tension: refers to the tension between individual's or organisational structures due to the 'crisis' nature of fire fighting. This severe tension may be average in an average situation in an office or sales floor for example, but at the scene of an emergency, faulty equipment, bad communication or an uncoordinated effort can lead to serious injury or be fatal. 4) Exposure to human tragedy: Fire fighter pride themselves in their ability to function in a situation where the majority of people cannot cope, like the scene of a car crash or entering a flaming building, however, the cost of said pride is being on hand for an intimate view of traumatic experiences such as the loss of family, friends, homes or business. 5) Fear: Just like you and I, fire fighters experience fear. It is not often we hear a fire fighter speak of their fear, but none the less it is real. A fire fighter may have legitimate concerns for both their own safety and the safety of their colleagues (Bentley et al, 2013; Ottlinger, 1997), as well as the fear of making a mistake that may affect the wellbeing of those around them. The majority of high stress professions, to varying degrees, experience these stressors. If we look at the stress experience of an average adult life, plus both physical and emotional demands of the fire service, in combination with previously explained fire stressors, it is clear that working within the fire service is an extremely high stress working environment (Bentley et al, 2013; Brennan, 2002; Hildebrand, 1984; Ottlinger, 1997). Hildebrand also mentioned psychological stressors

that may directly affect fire fighters. Encountering death regularly, injuries to fire fighters or self, peer pressure, false alarms, interactions with victims and their families, lack of advancement or encouragement, boredom, departmental policies, lack of performance recognition, general job dangers and even low or unfair pay can all affect the mental integrity of fire fighters who are already in a high stress, traumatic environment (Bentley et al, 2013; Brennan, 2002; Ottlinger, 1997). Hammer et al. (1986) also found that there are high levels of stress associated with work as a paramedic, and these stressors tend to manifest themselves through either negative attitudes in relation to the organisation, or through the care the individual's give to their patients (Bentley et al, 2013; Brennan, 2002).

1.5 Traumatic Environment

According to Mitchell et al. (1990), the emergency service field is one of western societies most challenging and potentially rewarding professions. However, many individuals who enter into emergency service work cannot withstand the persistent occupational stress and pressure. There are few life stressors that can have such a negative and destructive effect on individuals, like the stress of caring for the sick and injured (Ottlinger, 1997)

Hildebrand (1984) identified both psychological and environmental stressors related to the fire services. Fire fighting, training to cope with the job, temperature, loud noises, explosions, unsafe or unsecure buildings, smoke or toxic fumes, both minor and major bodily harm, and even broken or unsafe equipment are all environmental factors to which effect fire fighting personnel (Hildebrand, 1984). Similarly to fire fighting or working on an ambulance, the policing services have an equally stressful occupation, which can lead to both physical and psychological symptoms, such as increased levels of depression, anxiety, and the development of posttraumatic stress disorder (Berg et al, 2006). The very nature of emergency work includes the reoccurring exposure to confrontation, violence, and potential harm. The exposure to potentially traumatic experiences on a regular basis can encourage the development of mental health complications, including high levels of job burnout, low levels of job satisfaction, negative well-being and potentially PTSD. Other factors such as prior traumas, life

events with a negative effect, and routinely being stressed within a work place can also increase the effects of negative well being (Maia et al, 2007).

There has been greater research and attention paid to first responders, including fire fighters and policing units, and the risks they face, due to the nature of their working conditions. Although sampling strategies have not been used thoroughly, and only convenient samples used in relation to post traumatic stress disorder, it is estimated that between 7% and 19% of on duty officers suffer from post traumatic stress disorder, or are suffering from subsyndromal PTSD (Carlier et al, 1997; Robinson et al, 1997; Maia et al, 2007).

Although previous research has shown that in most cases, a critical incident or traumatic event is the driving force behind the development of PTSD, the more recent of the research has highlighted the importance of work environmental stressors, and their importance in the development and maintenance of psychological distress, job burnout and job satisfaction in first response personnel (Collins et al, 2003; Maia et al, 2007). Collins and Gibbs (2003) found that the most influential stressors among police officers were not related to a traumatic experience or critical incidents, but rather relate to concerns with the working environment. These concerns are related to lack of communication, lack of control over workload, inadequate organisational support, and general workload burnout (Collins et al, 2003; Ottlinger, 1997). Carlier et al. (1997) found that environmental factors such as dissatisfaction with support from the individuals organisation could be used as predictors to traumatic stress symptoms. Similarly in 2002, Liberman found that repeated work stressors were linked to PTSD symptoms, but the effects of the stressors were independent from, and more important in relation to predicting symptom development than the critical incident or traumatic experience (Liberman, 2002).

Within a work environment it is important to consider effecting variables such as discriminating factors. For example, within a sample of first response officers, there is evidence of woman, or ethnic minorities reporting more negative social interactions, such as criticism or harassment, within a working environment (Morris, 1996). In 1995 Morash and Haarr found that female first response officers experience greater amounts of bias and harassment in their working environment, despite the similarities in reported

stress sources in both genders (Morash et al, 1995). In 2006 a 3-factor model of sources of perceived stress, using a female sample was examined, and found that work stressors such as lack or perceived colleague support, discrimination due to gender, harassment of a sexual nature and interpersonal conflicts , contributed greatly to reported stress (Thompson et al, 2006). Although supporting evidence shows a relationship between various environmental factors in relation to PTSD symptoms, there is also evidence to argue this point. For example, in 2004, it was found that while organisational stressors could predict symptoms of PTSD, organisational stressors did not. However organisational stressors had predicting values on both job satisfaction and job burnout (Brough, 2004).

1.6 Rationale, aims and hypothesis

The term social support is well known and many would agree that it plays an important role in influencing well-being in individual's (Lopez et al, 2011). With an in-depth look at interpersonal resources we can see a range of emotional, informational and instrumental support, which by themselves, or in combination with each other and more concrete material resources can help an individual cope and adapt to life events which they find stressful, and can support the individual's well being positively (Barrera, 1986; Dunst & Trivette, 1985). With the perception of social support known to be influential on well being, it is important to investigate the influence it may have on other variables associated with a traumatic working environment, such as job satisfaction, burnout and an individual's general mental health, in a traumatic working environment.

The aim of this study is to explore the impact of an individual's perceived social support on levels of job satisfaction, burnout, and general psychological well being. Fire fighters in Dublin play dual roles in society as fire fighters and paramedics therefore it is important to carry out this study as their mental health has huge influence on their performance (Mahoney, J.W. et al, 2014). Previous studies have shown that employees in 'front line' jobs, such as fire fighters, paramedics, law enforcement, etc. are exposed to traumatic experience at higher frequencies (Corneil et al. 1999). The purpose of this study is to investigate the true extent of friendships and relationships on an individual's mental health and working ability.

Hypothesis 1:

Perceptions of social support will positively correlate with high scores of job satisfaction, low scores of burnout and high levels of general wellbeing in a traumatic working environment.

Hypothesis 2:

Age will correlate with high scores of job burnout in a traumatic working environment.

Hypothesis 3:

Length of service will correlate with high scores of job satisfaction in a traumatic working environment.

Hypothesis 4:

High levels of psychological wellbeing will correlate with low levels of job burnout.

2.Method

2.1 Participants

The participants of this study were both male and female fire fighters, working within the ranks of Dublin Fire Brigade, with ages ranging from 26-60 years of age. The mean age of participants is 44.31 with a standard deviation of 3.74. 200 fire fighters were contacted in relation to being involved in the study, but only 138 participants responses were collected, 37 of which were discarded as they were in violation of the inclusion criteria and/or incomplete. Participants were recruited from four stations within the Dublin Fire Brigade's area of operations. The participant recruitment method was convenience sampling. A frequency chart of demographic characteristics is presented below in Table 1.

Table 1: Frequency chart of participant age

| | Frequency | Percent % | Valid Percent | Cumulative Percent |
|--------------------|------------------|------------------|----------------------|---------------------------|
| <i>26-30 years</i> | 2 | 2.0 | 2.0 | 2.0 |
| <i>31-35 years</i> | 20 | 19.8 | 19.8 | 21.8 |
| <i>36-40 years</i> | 14 | 13.9 | 13.9 | 35.6 |
| <i>41-45 years</i> | 22 | 21.8 | 21.8 | 57.4 |

| | | | | |
|--------------------|-----|------|------|-------|
| <i>46-50 years</i> | 26 | 25.7 | 25.7 | 83.2 |
| <i>51-55 years</i> | 14 | 13.9 | 13.9 | 97.0 |
| <i>56-60 years</i> | 3 | 3.0 | 3.0 | 100.0 |
| <i>Above Total</i> | 101 | 100 | 100 | 100.0 |
| <i>Missing</i> | 0 | 0 | 0 | 0 |
| <i>Total</i> | 101 | 100 | 100 | 100.0 |

2.2 Measures / Materials

Data was collected via an 8- part questionnaire printed over 4 pages. The self report questionnaire consisted of a demographic questionnaire, The Multidimensional scale of Perceived Social Support, The Brief Resilience Scale, The Revised Life Orientation Test, The Abbreviated Maslach Burnout Inventory, the Perceived Stress Scale, The Satisfaction with Work Scale, and lastly the General Health Questionnaire.

2.2.1 Demographic Questionnaire

The demographics questionnaire records age, gender, and length of service.

2.2.2 The Multidimensional Scale of Perceived Social Support

In 1988 the 12 item multidimensional scale of perceived social support was developed by Zimet, Dahlem, Zimet and Farley. The easy to use self report scale distinguishes an individual's perceptions of social support from three sources; Family, friends and significant other. The MSPSS works on a seven point likert scale ranging from 1-7, or very strongly disagree to very strongly agree. The obtainable scores range from 12-84. Questions 1, 2, 5, and 10 relate to the significant other; 3, 4, 8 and 11 relate to family; and 6, 7, 9 and 12 are concerned with the perception of social support from friends (See appendix B.). Canty - Mitchell et al. (2000) conducted a study of the psychometric properties of the multidimensional scale of perceived social support in urban adolescents, and found, similarly to Zimet (1990), that the MSPSS scale is not only psychometrically sound, but shows a strong test retest reliability, internal reliability and factorial reliability (Canty-Mitchell et al, 2000; Zimet et al, 1988,1990) .

2.2.3 The Brief Resilience Scale

The six items within the brief resilience scale (see appendix B.) was developed to see if it was possible to reliably assess resilience as bouncing back from stress (Agnes, 2005). This six item scale ranged from 1, strongly disagree, to 5, strongly agree, on a likert scale. Items 1, 3 and 5 are positively worded and items 2, 4 and 6 are negatively worded. The BRS is scored while items 2, 4 and 6 are reverse coded. Previous studies were conducted on 4 different samples, showing a good internal consistency, with Cronbach's alpha ranging from .80-.91 (.84, .87, .80, .91). For two of the samples, the BRS was administered twice, with a strong test retest reliability of .69 and .62 (Agnes, 2005; Bruce et al, 2008; Charney, 2004).

2.2.4 The Revised Life Orientation Test

The revised life orientation test was developed by Scheier et al. (1994) and is a ten item test, scored on a 5 point likert scale, 0-4, of strongly disagree to strongly agree. The revised scale was developed in order to eliminate two items from the original scale, which were more concerned with coping styles of an individual rather than the individual's positive expectations for the future or its outcomes. When scoring the LOT-R, items 3, 7 and 9 need to be reverse coded (0=4, 1=3, 2=2, 3=1, 4=0). It is important to note that items 2, 5, 6 and 8 are just filler items and do not add to the overall score, which is obtained by finding the sum of items 1, 3, 4, 7 and 9, making the Revised Life Orientation Test, truly a six item scale (Scheier et al, 1994). Other research into the reliability of the LOT-R test by Carver et al. (2010), shows an acceptable level of internal consistency, with a Cronbach' alpha level of .78, just as importantly the test retest correlations were .68, .60, .56 and .79, suggesting it's a stable scale tested over time (Carver et al, 2010).

2.2.5 The Abbreviated Maslach Burnout Inventory

This abbreviated burnout inventory is a twelve item questionnaire using a likert scale ranging from 1-7. 1= everyday, 2= a few times a week, 3= once a week, 4= a few times a month, 5= once a month or less, 6= a few times a year, and 7= never. Items 3, 4 and 7 relate to emotional exhaustion. A high score within these three questions indicates a greater emotional exhaustion, and as a result higher levels of burnout. Items 2, 5 and 8

are concerned with depersonalisation. Similarly higher scores within these three items means higher levels of depersonalisation, which again influence levels of burnout. Personal accomplishment is derived from the sum of items 1,6 and 9, with high scores indicating greater personal accomplishment, and as a result, less burnout. The last three items, 10-12, were developed by McManus et al. (2003) for use with professionals in medicine, and was altered to accommodate fire fighters before its use. With high scores relating to satisfaction as a fire fighter. Iwanicki et al. (1981) and Gold (1984) carried out several studies in relation to the reliability of the MBI and found Cronbach alpha ratings of .90 for emotional exhaustion, .76 for both depersonalisation and personal accomplishment. Similarly reliable scores were reported for test retest reliability with a range of .60-.82 (Maslach et al, 1996; McManus et al, 2003).

2.2.6 The Perceived Stress Scale

The Perceived Stress Scale is the most widely used scale for measuring the perception of stress. It is used as a measure to determine to what degree an individual appraises a situation as stressful. The questionnaire is a ten item scale working on a 5 point likert scale, ranging from 0-4, 0= never, 1= almost never, 2= sometimes, 3= fairly often, 4= very often (Cohen et al, 1988). Important to note that items 4,5,7 and 8 are positively stated items and should be reversed scored. Throughout his work Cohen has reported a Cronbach alpha ranging from .73-.92, and a test retest scoring at a similar range (Cohen et al,1983, 1988).

2.2.7 The Satisfaction With Work Scale

The satisfaction with work scale is a 5 item measure ranging from 0-4 on a likert scale, 0= strongly disagree to 4= strongly agree. In 1991 Blais, Lachance, Forget, Richer, and Dulude adapted a French version of the satisfaction with life scale, which is well validated as reliable, and by changing the wording of the five item scale directed it towards an individual's cognitive evaluation of their work satisfaction. This French version was then adapted to an English version, and is concerned with an individual's cognitive appraisal of their work situation, or their well being in the working context or environment (Kelloway et al,2005; McDaid et al, 2005; Turner et al, 2005). Looking at

a sample of 4 studies using the SWWS, we seen Cronbach alpha scores of .86, .85, .83 and .88, with a combined internal reliability of .75 and a test retest score of .77, its clear the satisfaction with work scale is an appropriate and reliable measure of job satisfaction.

2.2.8 The General Health Questionnaire

The general health questionnaire is a 12 item survey on an individual's general mental health, with scores on a likert scale ranging from 0-3 on each item. The surveys potential scores range from 0-36. A score between 11 and 12 is a typical score, with scores over 15 showing evidence of distress, scores above 20 are suggestive of severe psychological problems or distress. Items 1,3,4,7 and 8 are all positively worded, were items 2,5,6,9 and 10 are negatively worded. All items on the GHQ-12 are significantly associated with each other and shows a Cronbach alpha level of .72 and a test retest score of .70 (Cambell et al, 2003; Martin, 1999).

2.3 Apparatus

The questionnaires were printed over 4 A4 pages and categorised directly into IBM SPSS statistics software. The SPSS software was used to compute and analyse the results given on the questionnaires.

2.4 Design

This study used a non-experimental correlational research design. The criterion variables within this study where general mental health, job satisfaction and job burnout. The predictor variables were age, length of service and perceptions of social support.

2.5 Procedure

Consent to carry out the research in the stations was received from officers from Dublin Fire Brigade. They were informed of the nature of the research and the aims of the research also. Four stations on the North Side of Dublin were used for this study. The four stations were visited, each four times, to cover the four watches each station has, A to D watch. The data collection took longer than anticipated due to the nature of the working conditions and the stations shift changes. The participants who gave consent to

the study at the stations were given the questionnaires at the start of their shift and returned them within ten to twenty minutes. After the data was collected, the questionnaires were vetted for any incomplete or inappropriate responses and removed from the sample. The remainder of the questionnaires were then input into SPSS for statistical analysis.

2.6 Data Analysis

Data is collected and analysed using IBM SPSS statistics software. The appropriate items on the questionnaire were reversed coded. A Pearson correlation coefficient analysis was used to determine a relationship between age, length of service, job satisfaction, job burnout and the individuals perceived social support. 3 one way between groups analysis (ANOVA) were carried out. In order to protect against a type one error, a Bonferroni adjustment was applied ($0.05/3=0.017$), therefore the analysis results were only significant if lower than 0.017. The reliability of each scale was also analysed using Cronbach's Alpha. SPSS was also used to conduct multiple regression analysis and descriptive statistics were used to calculate the mean scores.

2.7 Ethical Consideration

As a researcher, understanding ethical issues and enforcing ethical work is extremely important when dealing with participants. As a result of the importance of these ethical issues, ethical guidelines were followed strictly during the study. Due to the nature of the questionnaire, participants were reassured that participation can be stopped at anytime they wish. To maintain anonymity, the questionnaires did not require any personnel information.

3. Results

3.1 Descriptive Statistics

96 percent of participants were male and 4 percent female. 37 percent of the sample were aged between 26-40 years of age, 47 percent were aged between 41-50, and 16 percent of participants were aged between 51-60 years of age, The mean age was 44.31 with a standard deviation of 3.74. 29 percent of participants have served in Dublin City

Fire Brigade for 1-10 years, 52 percent of the sampled fire fighters have served for 11-25 years and 19 percent have been on the force for between 26-35 years. The mean years of service was 15.63 with a standard deviation of 5.48. The Multidimensional Scale of Perceived Social Support has a score range of 26-84, with a mean score of 66.99 and standard deviation of 12.38.

The Brief Resilience Scale has a score range of 6-21, with a mean score of 17.29 and a standard deviation of 2.23. The Revised Life Orientation Test has a score range of 10-35, with a mean score of 27.12 and a standard deviation of 5.06. The Abbreviated Maslach Burnout Inventory has a score range of 13-57, with a mean score of 30.95 and a standard deviation of 9.60. The Perceived Stress Scale has a score range of 5-40, the mean score being 26.53 and the standard deviation reported at 6.75. The Satisfaction with Work Scale ranges from 2-20 in scores, with a mean score of 11.99 and a standard deviation of 3.73. The General Health Questionnaire has scores ranging from 14-24 with a mean score of 19.39 and a standard deviation of 2.26.

3.2 Reliability of Measures

Cronbach's alpha reliability coefficient normally ranges between 0 and 1. But there isn't an actual lower limit to the coefficient. The closer to 1.0 the Cronbach's alpha coefficient score is, the greater the internal consistency of the items in the scale. This is based upon the formula " $r_k / [1 + (k - 1)r]$ ". In this formula k represents the number of items considered and r is the mean of the inter-item correlations (Carmines et al, 1979). It was George and Mallery (2003) who suggested a basic rule of thumb. $>.9$ is excellent, $>.8$ is good, $>.7$ is acceptable, $>.6$ is questionable, $>.5$ is poor, and anything below $.5$ is unacceptable (George et al, 2003).

Throughout this study seven scales were used in measuring the variables. The Multidimensional Scale of Perceived Social Support (MSPSS) consisted of twelve items ($\alpha = .93$), Brief Resilience Scale (BRS) consisted of six items ($\alpha = .59$), The Revised Life Orientation Test (LOT-R) consisted of six items ($\alpha = .69$), The Abbreviated Maslach Burnout Inventory is also a six item scale ($\alpha = .69$), The General Health Questionnaire (GHQ-12) is a twelve item scale ($\alpha = .92$), The Satisfaction with Work

Scale consist of five items ($\alpha = .74$) and the lastly, The Perceived Stress Scale (PSS) is a ten item scale ($\alpha = .83$).

3.3 One-way Between Groups Analysis

For this study, six one-way between groups analysis of variance were conducted. Three explored the impact of age on job burnout, job satisfaction, and psychological health, where the participants were divided into three groups according to their age (26-40, 41-50, 51-60). The other three explored the impact of length of service on job burnout, job satisfaction and psychological health, with participants grouped into three service groups, 1-10 years, 11-20 years and 21-35 years.

The first between groups analysis of variance was conducted to explore the impact of age on burnout scores. There was no statistical difference at the $p < .001$ level in burnout scores for the three age groups $F(2,95) = 1.38, p > .001$. The effect size, calculated using eta squared, was .03. Post-hoc comparisons using Tukey HSD test indicated that the mean score for the three age groups, 26-40 ($M = 28.36, SD = 7.32$), 41-50 ($M = 32.19, SD = 10.79$) and 51-60 ($M = 32.15, SD = 9.20$) was not significantly different from one another ($p = .256$). Similarly the second analysis, job satisfaction ($F(2,95) = 2.84, p = .064$), showed no significant differences between the age groups, 26-40 ($M = 12.23, SD = 3.80$), 41-50 ($M = 10.81, SD = 4.13$) and 51-60 ($M = 12.78, SD = 3.11$) on levels of job satisfaction. Also the third analysis, exploring the impact of age on psychological wellbeing ($F(2,95) = 1.30, p = .276$), showed no statistical differences between the age groups, 26-40 ($M = 11.73, SD = 5.28$), 41-50 ($M = 10.78, SD = 5.22$) and 51-60 ($M = 13.00, SD = 6.99$) on the dependant variable.

The fourth one-way between groups analysis of variance was conducted to explore the impact of length of service on burnout scores ($F(2,98) = 2.61, p > .001$). However the analysis found no significant difference ($p = .079$) between the three groups of service lengths, 1-10 years ($M = 28.00, SD = 10.25$), 11-20 years ($M = 33.35, SD = 8.34$) and 21-35 years ($M = 30.86, SD = 9.85$) on burnout. The fifth analysis, exploring impact of service length, 1-10 years ($M = 11.14, SD = 4.15$), 11-20 years ($M = 11.73, SD = 6.24$) and 21-35 years ($M = 30.86, SD = 9.85$), on psychological health ($F(2,98) = .370, p < .017$) also showed no significant differences between groups ($p = .692$).

However the sixth and final one way between groups analysis of variance conducted explored the impact of length of service of job satisfaction scores. The analysis showed a significant difference at the $p < .001$ level in job satisfaction scores for the three age groups $F(2,98) = 8.30, p < .017$. The effect size was .02. Post-hoc comparisons using the Tukey HSD test indicated that the mean score for the second length of service group, 11-20 ($M = 10.16, SD = 3.82$) was significantly different from the first group ($p = .012$), 1-10 service years ($M = 12.69, SD = 3.54$), and the third group ($P = .000$), 21-35 years of service ($M = 13.34, SD = 3.05$). There was no statistical significant difference in mean scores between the first and third length of service groups.

3.4 Multiple Regression Models

3.4.1 Regression Model One

Multiple regression was performed to investigate the ability of perceived social support, resilience, optimism, stress and psychological health to predict levels of job burnout. Preliminary analyses were conducted to ensure no violation of the assumptions of normality, linearity, and homoscedasticity. Additionally, the correlations between the predictor variables included in the study were examined. All correlations were weak to moderate, ranging between $r = .27, p < .001$ and $r = .52, p < .001$. This indicates that multicollinearity was unlikely to be a problem (Tabachnick et al, 2007). All predictor variables were statistically correlated with job burnout which indicates that the data was suitably correlated with the dependent variable for examination through multiple linear regression to be reliably undertaken.

Since no previous hypotheses had been made to determine the order of entry of the predictor variables, a direct method was used for the multiple linear regression analysis. The five independent variables explained 27% of variance in job burnout ($F(5,95) = 7.03, p < .0005$).

In the final model, only one predictor variables were statistically significant, psychological health, with job burnout, recording a Beta value ($\beta = .32, p < .05$). Where social support ($\beta = -.017, p > .05$), resilience ($\beta = -.171, p > .05$), optimism ($\beta = -.215, p > .05$), and stress ($\beta = .071, p > .05$) were insignificant as predictors of burnout.

3.4.2 Regression Model Two

The second multiple regression was performed to investigate the ability of perceived social support, resilience, optimism, stress and psychological health to predict job satisfaction. Similarly to the first model there was no violation of the assumptions of normality, linearity, and homoscedasticity. There were no significant correlations between the predicting variables and job satisfaction.

Again as no previous hypotheses had been made to determine the order of entry of the predictor variables, a direct method was used for the multiple linear regression analysis. The five independent variables explained 9% of variance in job satisfaction and was not significant ($F(5,95) = 1.92, p > .0005$).

The final model shows that all predicting variables were not significant in predicting job satisfaction. With the predicting values showing social support ($\beta = .144, p > .05$), resilience ($\beta = .084, p > .05$), optimism ($\beta = .094, p > .05$), stress ($\beta = .056, p > .05$) and psychological health ($\beta = -.028, p > .05$).

3.4.3 Regression Model Three

A third multiple regression was conducted to investigate the ability of perceived social support, resilience, optimism and stress to predict psychological health. As it was in the first and second multiple regressions, there was no violation of the assumptions of normality, linearity, and homoscedasticity.

Again as no previous hypotheses had been made to determine the order of entry of the predictor variables, a direct method was used for the multiple linear regression analysis. The four independent variables explained 47% of variance in psychological health and was significant ($F(4,96) = 21.45, p < .0005$).

The final model evaluated all the independent variables as significant predictors of psychological health and found that only one was significant as a predictor, stress, showing a high beta value ($\beta = .57, p < .005$).

4. Discussion

4.1 Findings and Comparisons

The findings in this study rejected two of the four proposed hypotheses. Perceived social support had no predicting power over levels of job satisfaction, burnout or general psychological wellbeing, and age did not significantly correlate with burnout in a traumatic working environment.

However it was seen that there was a significant difference between the length of service groups in relation to job satisfaction. The analysis showed a significant difference at the $p < .001$ level in job satisfaction scores for the three age groups $F(2,98) = 8.30, p < .017$. The results showed lower levels of job satisfaction in the 11-20 years of service in comparison to the 1-10 years and the 21-35 years of service. This is supported by previous research that states length of service is a more suitable predictor of job satisfaction than age (Saker et al, 2003). However there is not enough research evidence to explain the significant difference for the participants in the middle of their careers showing lower levels of job satisfaction than those at the beginning and end of their careers. Sibbald et al. (2003) noted a high correlation between job satisfaction and the urge to quit.

The first regression model that was used determined that there is a significant effect from psychological wellbeing ($p = .009$) on levels of job burnout in a traumatic working environment, supporting the fourth hypothesis proposed in this study.

Unrelated to the proposed hypotheses, the study showed a significant relationship between stress, and an individual's psychological wellbeing ($p = .001$). Stress has been linked to all leading physical causes of death - heart disease, cancer, stroke (Cohen, Janicki-Deverts, & Miller, 2007), and is associated with development of most major mental health problems, including depression, PTSD and pathologic aging (Marin et al., 2011).

What the results of this study have shown is that high levels of stress on emergency service workers leads to low levels of psychological wellbeing ($p < .001$), which in turns relates to higher levels of burnout within the force ($p < .017$). Another note worthy

observation in the results is the apparent effect of length of service on job satisfaction, and that workers only starting their career, or close to retirement, are happier in work.

4.2 Limitations

This study, like most, has its limitations. Firstly a larger sample size would be able to better show the true affects of the tested variables with more significance. Not only was the sample small, it was also self-selected which may not give a clear and precise view of the sample. As the questionnaires were self-reporting it is possible that participants may have embellished more acceptable responses to the questions asked, leading to a bias in research. The sample obtained for this study was also male dominated and may not give an accurate representation of the population of fire fighters in Dublin.

4.3 Implications of the present study for future research

This study has added to the already vast library of work done on human services crews or emergency response personnel and further shows the importance of positive mental wellbeing within the emergency services. Further study into the protection and maintenance of emergency workers psychological wellbeing and the dependable evaluation and prevention of levels of burnout in first response crews warrants further study.

5. Conclusion

The purpose of this study was to investigate the relationship between perceptions of social support on job satisfaction, psychological wellbeing and burnout. What the study found was although perception of social structures correlated with the above variables, the correlation was not significant. And that stress and psychological wellbeing were more important to an individuals levels of burnout in a traumatic working environment. In relation to job satisfaction, individuals in the middle of their careers were less satisfied with their work then those who have only started, or those close to retirement. Perhaps the novelty of being a fireman and the rewarding nature of the work help individuals enjoy their work more, and find it fulfilling, where those close to retirement, may find relief knowing their work in a traumatic environment is nearing a close.

6. References

- Acker, G. M. (2003). Role conflict and ambiguity: Do they predict burnout among mental health service providers?. *Social Work in Mental Health, 1*(3), 63-80.
- Anderson, D. G. (2000). Coping strategies and burnout among veteran child protection workers. *Child abuse & neglect, 24*(6), 839-848.
- Angerer, J. M. (2003). Job burnout. *Journal of Employment Counseling, 40*(3), 98-107.
- Agnes, M. (Ed.). (2005). Webster's new college dictionary. Cleveland, OH: Wiley.
- Bakker, A. B., Demerouti, E., & Sanz-Vergel, A. I. (2014). Burnout and work engagement: The JD–R approach. *Annu. Rev. Organ. Psychol. Organ. Behav., 1*(1), 389-411
- Barrera M. Distinctions between social support concepts, measures, and models. *Am J Community Psychol 1986;14*(4):413-45.
- Baum, T. A. Revenson, J. Singer, A. Baum, T. A. Revenson, J. Singer (Eds.) , *Handbook of health psychology* (2nd ed.) (pp. 465-492). New York, NY, US: Psychology Press
- Bentley, M. A., Crawford, J. M., Wilkins, J. R., Fernandez, A. R., & Studnek, J. R. (2013). An assessment of depression, anxiety, and stress among nationally certified EMS professionals. *Prehospital Emergency Care, 17*(3), 330-338.
- Bovier, P. A., Chamot, E., & Perneger, T. V. (2004). Perceived stress, internal resources, and social support as determinants of mental health among young adults. *Quality of Life Research, 13*(1), 161-170.
- Brief, A. P., & Weiss, H. M. (2002). Organizational behavior: Affect in the workplace. *Annual review of psychology, 53*(1), 279-307.
- Cahalane, H., & Sites, E. (2008). The climate of child welfare employee retention. *Child Welfare, 87*(1), 91– 114

- Canty-Mitchell, J. & Zimet, G.D. (2000). Psychometric properties of the Multidimensional Scale of Perceived Social Support in urban adolescents. *American Journal of Community Psychology*, 28, 391-400.
- Cambell A, Walker J, Farrell G. Confirmatory factor analysis of the GHQ-12: Can I see that again? *Aust N Z J Psychiatry*.2003;37:475–83.
- Campos, B., Schetter, C. D., Abdou, C. M., Hobel, C. J., Glynn, L. M., & Sandman, C. A. (2008). Familialism, social support, and stress: Positive implications for pregnant Latinas. *Cultural Diversity and Ethnic Minority Psychology*, 14(2), 155.
- Caplan, G. (1974). *Support systems and community mental health*. New York: Behavioral Publishing
- Carver, C. S., Scheier, M. F., & Segerstrom, S. C.(2010). Optimism. *Clinical Psychology Review*, 30, 879-889.
- Cassel, J (1976) The contribution of the social environment to host-resistance. *American Journal of Epidemiology* 104: pp. 107-122
- Castle, H., Slade, P., Barranco-Wadlow, M., & Rogers, M. (2008). Attitudes to emotional expression, social support and postnatal adjustment in new parents. *Journal of reproductive and infant psychology*, 26(3), 180-194
- Charney, D. S. (2004). Psychobiological mechanisms of resilience and vulnerability: Implications for successful adaptation to extreme stress. *American Journal of Psychiatry*, 161, 195–216.
- Cobb, S (1976) Social support as a moderator of life stress. *Psychosomatic Medicine* 38: pp. 300-314
- Cohen S & Wills T A. Stress, social support, and the buffering hypothesis. *Psychol. Bull.* 98:310-57, 1985. [Department of Psychology, Carnegie Mellon University, Pittsburgh, PA]
- Cohen, S., Kamarck, T., and Mermelstein, R. (1983). A global measure of perceived stress. *Journal of Health and Social Behavior*, 24, 386-396.
- Cohen, S. and Williamson, G. Perceived Stress in a Probability Sample of the United States. Spacapan, S. and Oskamp, S. (Eds.) *The Social Psychology of Health*. Newbury Park, CA: Sage, 1988.

- Collings, J. A., & Murray, P. J. (1996). Predictors of stress amongst social workers: An empirical study. *British Journal of Social Work*, 26(3), 375-387.
- Eagley, A. H., & Chaiken, S. (1993). *The psychology of attitudes*. New York: Harcourt
- Fishbein, M. (1980). A theory of reasoned action: Some applications and implications. In H. Howe & M. M. Page (Eds.), *Nebraska symposium on motivation: Beliefs, attitudes, and values* (pp. 65-116). Lincoln: University of Nebraska Press
- Fishkin, Gerald Loren. (1989). *Firefighter and paramedic burnout: The survival guide – the role you play*. New York – Harcourt.
- Gee, C. B., & Rhodes, J. E. (2008). A social support and social strain measure for minority adolescent mothers: A confirmatory factor analytic study. *Child: Care, Health and Development*, 34(1), 87-97.
- George, D., & Mallery, P. (2003). *SPSS for Windows step by step: A simple guide and reference. 11.0 update (4th ed.)*. Boston: Allyn & Bacon
- Geurts, S. A., & Sonnentag, S. (2006). Recovery as an explanatory mechanism in the relation between acute stress reactions and chronic health impairment. *Scandinavian Journal of Work, Environment & Health*, 482-492.
- Gjesfjeld, C.D., Greeno, C. G., Kim, K. H., & Anderson, C.M. (2010) Economic stress, social support, and maternal depression: Is social support deterioration occurring? *Social Work Research*, 34, 135-143.
- Gomez, J. S., & Michaelis, R. C. (1995). An assessment of burnout in human service providers. *The Journal of Rehabilitation*, 61(1), 23.
- Gore, S. (1981). Stress-buffering functions of social supports: An appraisal and clarification of research models. In b. S. Dohrenwend & B. P. Dohrenwend (Eds.), *Stressful life events and their contexts* (pp. 202-222) New York: Prodist.
- Gottlieb, B. (1983). *Social Support strategies*. Beverly Hills, CA: Sage
- Hulin, C. L., & Judge, T. A. (2003), Job attitudes, In W.C. Borman, D. R. Ilgen, & R. J. Klimoski (Eds.), *Handbook of psychology: Industrial and organisational psychology* (pp. 25-276), Hoboken, NJ: Wiley.

- Hanisch, K. A., & Hulin, C. L. (1990). Job attitudes and organizational withdrawal: An examination of retirement and other voluntary withdrawal behaviors. *Journal of Vocational Behavior*, 37(1), 60-78.
- Hanisch, K. A., & Hulin, C. L. (1991). General attitudes and organizational withdrawal: An evaluation of a causal model. *Journal of Vocational Behavior*, 39(1), 110-128.
- Hayes, R., Bull, B., Hargreaves, K., & Shakespeare, K. (2008). A survey of recruitment and retention issues for occupational therapists working clinically in mental health. *Australian occupational therapy journal*, 55(1), 12-22.
- Hayes, B., Bonner, A. N. N., & Pryor, J. (2010). Factors contributing to nurse job satisfaction in the acute hospital setting: a review of recent literature. *Journal of Nursing Management*, 18(7), 804-814.
- Hildebrand, J.F. (1984). Stress Research. *Fire Command*, 55-58
- Hom, P. W., Katerberg, R., & Hulin, C. L. (1979). Comparative examination of three approaches to the prediction of turnover. *Journal of Applied Psychology*, 64(3), 280.
- Hom, P. W. (2001). The legacy of Hulin's work on turnover thinking and research. *Psychology of work: Theoretically based empirical research*, 169-187.
- Jalal Sarker, S., Crossman, A., & Chinmeteeputuck, P. (2003). The relationships of age and length of service with job satisfaction: an examination of hotel employees in Thailand. *Journal of Managerial Psychology*, 18(7), 745-758.
- Jenaro, C., Flores, N., & Arias, B. (2007). Burnout and coping in human service practitioners. *Professional Psychology: Research and Practice*, 38(1), 80.
- Judge, T. A., & Hulin, C. L. (1993). Job satisfaction as a reflection of disposition: A multiple source causal analysis. *Organizational Behavior and Human Decision Processes*, 56(3), 388-421
- Judge, T. A., & KLINGER, R. (2008). Job satisfaction. *The Science of Subjective Well-Being*, 393.
- Judge, T. A., & Larsen, R. J. (2001). Dispositional affect and job satisfaction: A review and theoretical extension. *Organizational Behavior and Human Decision Processes*, 86(1), 67-98.

- Judge, T. A., & Watanabe, S. (1994). Individual differences in the nature of the relationship between job and life satisfaction. *Journal of Occupational and Organizational Psychology*, 67(2), 101-107.
- Kaul, M., & Lakey, B. (2003). Where is the support in perceived support? The role of generic relationship satisfaction and enacted support in perceived support's relation to low distress. *Journal of Social and Clinical Psychology*, 22(1), 59-78.
- Kee, J. A., Johnson, D., & Hunt, P. (2002). Burnout and social support in rural mental health counselors. *Journal of Rural Community Psychology*, 5(1).
- Kelloway, E. K., & Day, A. L., "Building Healthy Workplaces: What We Know so Far", *Canadian Journal of Behavioural Science*, 37, (2005), 223-235.
- Kim, H., & Stoner, M. (2008). Burnout and turnover intention among social workers: Effects of role stress, job autonomy and social support. *Administration in Social Work*, 32(3), 5-25.
- Kirk-Brown, A., & Wallace, D. (2004). Predicting burnout and job satisfaction in workplace counselors: The influence of role stressors, job challenge, and organizational knowledge. *Journal of Employment Counseling*, 41(1), 29-37.
- Kulik, L. (2006). Burnout among volunteers in the social services: The impact of gender and employment status. *Journal of Community Psychology*, 34(5), 541-561.
- Lakey, B., & Cohen, S. (2000). Social support theory and measurements, 1a S. Cohen, I. G, Underwood, & B, H, Gottlieb (Eds.), *Social support measurement and intervention* (pp. 29-52). New York: Oxford University Press
- Landsman, M. J. (2002). Rural child welfare practice from an organization-in-environment perspective. *CHILD WELFARE-NEW YORK-*, 81(5), 791-820.
- Lazarus, R. S., & Folkman, S. (1984). *Stress. Appraisal, and coping*, 725.
- Lin, J., Thompson, M. P., & Kaslow, N. J. (2009). The mediating role of social support in the community environment—psychological distress link among low-income African American women. *Journal of Community Psychology*, 37(4), 459-470.

- Locke, E. A. (1976). The nature and causes of job satisfaction. In M. D. Dunnette (Ed.), *Handbook of industrial and organisational psychology* (pp.1297-1343). Chicago: Rand McNally
- Lopez, M. L., & Cooper, L. (2011, February 20). Social support measures review. *National center for latino child & family research* [Laytonville].
- Lyons, J. S., Perrotta, P., & Hancher-Kvam, S. (1988). Perceived social support from family and friends: Measurement across disparate samples. *Journal Of Personality Assessment*, 52(1), 42-47.
- Maguen, S., Metzler, T. J., McCaslin, S. E., Inslicht, S. S., Henn-Haase, C., Neylan, T. C., & Marmar, C. R. (2009). Routine work environment stress and PTSD symptoms in police officers. *The Journal of nervous and mental disease*, 197(10), 754.
- Mahoney, J. W., Gucciardi, D. F., Ntoumanis, N., & Mallet, C. J. (2014). Mental toughness in sport: Motivational antecedents and associations with performance and psychological health. *Journal Of Sport & Exercise Psychology*, 36(3), 281-292
- Martin AJ. Assessing the multidimensionality of the 12-item General Health Questionnaire. *Psychol Rep.* 1999;84:927–35.
- Maslach, C., & Jackson, S. E. (1981). The measurement of experienced burnout. *Journal of Organizational Behavior*, 2(2), 99-113.
- Maslach, C., Jackson, S. E., & Leiter, M. P. (1996). *Maslach Burnout Inventory*. (3rd ed.). Palo Alto, CA: Consulting Psychologists Press.
- Maslach, C., Schaufeli, W. B., & Leiter, M. P. (2001). Job burnout. *Annual review of psychology*, 52(1), 397-422.
- Mattlin, J. A., Wethington, E., & Kessler, R. C. (1990). Situational determinants of coping and coping effectiveness. *Journal Of Health And Social Behavior*, 31(1), 103-122.
- Maupin, A. N., Brophy-Herb, H. E., Schiffman, R. F., & Bocknek, E. L. (2010). Low-Income Parental Profiles of Coping, Resource Adequacy, and Public Assistance Receipt: Links to Parenting. *Family Relations*, 59(2), 180-194.

- McManus, I. C., Smithers, E., Partridge, P., Keeling, A., & Fleming, P. R. 2003, "A levels and intelligence as predictors of medical careers in UK doctors: 20 year prospective study", *British Medical Journal*, 327, 139-142).
- Meijman, T.F. and Mulder, G. (1998), "*Psychological aspects of workload*", in Drenth, P.J., Thierry, H. andde Wolff, C.J. (Eds), *Handbook of Work and Organizational Psychology*, 2nd ed., Erlbaum, Hove, pp.5-33.
- Mount, M., Ilies, R., & Johnson, E. (2006). Relationship of personality traits and counterproductive work behaviors: The mediating effects of job satisfaction. *Personnel Psychology*, 59(3), 591-622.
- Ottlinger, James Michael (1997) Stress and fire fighters: Walden University An Exploratory study Dissertation
- Po Sen Chu, Donald A. Saucier, and Eric Hafner (2010). Meta-Analysis of the Relationships Between Social Support and Well-Being in Children and Adolescents. *Journal of Social and Clinical Psychology*: Vol. 29, No. 6, pp. 624-645
- **Procidano**, M. E., & **Heller**, K. (1983). Measures of perceived social support from friends and from family: Three validation studies. *American Journal of Community Psychology*, 11, 1– 24.
- Rosenberg, T., & Pace, M. (2006). Burnout among mental health professionals: Special considerations for the marriage and family therapist. *Journal of marital and family therapy*, 32(1), 87-99.
- Russell, D., & Cutrona, C. E. (1984). *The provisions of social relationships and adaption to stress*. American Psychological Association, Anaheim, CA.
- Scanlan, J. N., Still, M., Stewart, K., & Croaker, J. (2010). Recruitment and retention issues for occupational therapists in mental health: Balancing the pull and the push. *Australian occupational therapy journal*, 57(2), 102-110.
- Sandler, L., Miller, P., Short, J., & Wolchik, S. (1989) Social support as a protective factor for children in stress. In D. Belle (Ed.0, *Children's scial networks and social supports* (pp. 277-308) New York: Wiley.

- Sarason & S. Duck (Eds.) *Personal relationships: Implications for clinical and community psychology* (pp. 15-41). New York: Wiley.
- Sarason, B. R., Sarason, I. G., & Gurung, R. A. R. (2001). Close personal relationships and health outcomes: A key to the role of social support. In B. R.
- Sarason, B., Seymour, (1974). *The psychological sense of community: Prospects for a community psychology*. Oxford, England: Jossey-Bass. (1974). xii 290 pp.
- Sarason, B. R., Shearin, E. N., Pierce, G. R., & Sarason, I. G. (1987). Interrelations of social support measures: Theoretical and practical implications. *Journal of Personality and Social Psychology*, 52, 813–832
- Scheier, M. F., Carver, C. S., & Bridges, M. W. (1994). Distinguishing optimism from neuroticism (and trait anxiety, self-mastery, and self-esteem): A re-evaluation of the Life Orientation Test. *Journal of Personality and Social Psychology*, 67, 1063-1078.
- Schaufeli, W. B., & Buunk, B. P. (2003). Burnout: An overview of 25 years of research and theorizing. *The handbook of work and health psychology*, 2, 282-424.
- Schaufeli, W. B., Leiter, M. P., & Maslach, C. (2009). Burnout: 35 years of research and practice. *Career development international*, 14(3), 204-220.
- Schulz, R., Greenley, J. R., & Brown, R. (1995). Organization, management, and client effects on staff burnout. *Journal of Health and Social Behavior*, 333-345.
- Schwartz, R. H., Tiarniyu, M. F., & Dwyer, D. J. (2007). Social worker hope and perceived burnout: The effects of age, years in practice, and setting. *Administration in Social Work*, 31(4), 103-119.
- Scott, K. D., & Taylor, G. S. (1985). An examination of conflicting findings on the relationship between job satisfaction and absenteeism: A meta-analysis. *Academy of Management Journal*, 28(3), 599-612.
- Shirom, A., Toker, S., Berliner, S., Shapira, I., & Melamed, S. (2008). The effects of physical fitness and feeling vigorous on self-rated health. *Health Psychology*, 27(5), 567.

- Sibbald, B., Bojke, C., & Gravelle, H. (2003). National survey of job satisfaction and retirement intentions among general practitioners in England. *BMJ*, 326(7379), 22.
- Smith, F. J. (1977). Work attitudes as predictors of attendance on a specific day. *Journal of Applied Psychology*, 62(1), 16.
- Spielberger, C. D., Vagg, P. R., & Wasala, C. F. (2003). Occupational stress: Job pressures and lack of support.
- Sprang, G., Clark, J. J., & Whitt-Woosley, A. (2007). Compassion fatigue, compassion satisfaction, and burnout: Factors impacting a professional's quality of life. *Journal of Loss and Trauma*, 12(3), 259-280.
- Sonnentag, S. (2001). Work, recovery activities, and individual well-being: a diary study. *Journal of Occupational Health Psychology*, 6(3), 196.
- Storey, J., & Billingham, J. (2001). Occupational stress and social work. *Social Work Education*, 20(6), 659-670.
- Tabachnick, B.G., & Fidell, L.S. (2007). *Using Multivariate Statistics, Fifth Edition*. Boston: Pearson Education, Inc
- Thompson, R. A. (1995). Preventing child maltreatment through social support: A critical analysis. Thousand Oaks, CA: Sage
- Thompson, R. A., Flood, M. F., & Goodvin, R. (2006). Social support and developmental psychopathology. *Developmental psychopathology*, 3, 1-37.
- Toepfer, S. M. (2010). Family social support and family intrusiveness in young adult women. *Family science review*, 15(2), 57-65.
- Vogel, D. L., & Wei, M. (2005). Adult Attachment and Help-Seeking Intent: The Mediating Roles of Psychological Distress and Perceived Social Support. *Journal of Counseling Psychology*, 52(3), 347.
- Weiss, H. M. (2002). Deconstructing job satisfaction: Separating evaluations, beliefs and affective experiences. *Human Resource Management Review*, 12(2), 173-194.
- Wethington, E., Kessler, R. C. (1986) Perceived support, received support, and adjustment to stressful live events. *Journal of Health and Social Behavior* 27: pp. 78-89

- Wicker, A. W. (1969). Attitudes versus actions: The relationship of verbal and overt behavioral responses to attitude objects. *Journal of Social issues*, 25(4), 41-78.
- Wills, T. A., & Ainette, M. C. (2012). Social networks and social support. In A..
- Zalesny, M. D. (1985). Comparison of economic and noneconomic factors in predicting faculty vote preference in a union representation election. *Journal of Applied Psychology*, 70(2), 243.
- Zimet, G.D., Dahlem, N.W., Zimet, S.G. & Farley, G.K. (1988). The Multidimensional Scale of Perceived Social Support. *Journal of Personality Assessment*, 52, 30-41.
- Zimet, G.D., Powell, S.S., Farley, G.K., Werkman, S. & Berkoff, K.A. (1990). Psychometric characteristics of the Multidimensional Scale of Perceived Social Support. *Journal of Personality Assessment*, 55, 610-17.

7. Appendices

7.1 Appendix A. Consent From

08/10/2014

To whom it may concern,

My name is Lee Synnott, son of Paul Synnott (badge no. 719), a fire fighter stationed in Northstrand on D watch and I am currently a psychology student of National College of Ireland. I am writing to you to request permission to conduct research in his station. My research will be in questionnaire form and will relate to perceptions of social structures, general mental health, job burnout and job satisfaction.

As previously stated, my research, if approved by an ethical committee, will be conducted through questionnaires. The questionnaires will be short and positively phrased.

Approval of my request would be greatly appreciated and if approved I would need it confirmation in writing. The approval can be sent to my father at Northstrand. If there are any questions please contact me via email: lee-synnott@hotmail.com , or by phone on 0876669160

Regards,

Lee Synnott

7.2 Appendix B. Self Report Questionnaire

General Demographics:

Gender: MALE / FEMALE

Age: _____

Number of years as member of *Dublin Fire Brigade*: _____

MSPSS/Multidimensional Scale of Perceived Social Support:

Instructions: we are interested to see how you feel about the following statements. Read each statement carefully. Indicate how you feel about each statement.

Circle the "1" if you **Very Strongly Disagree**
Circle the "2" if you **Strongly Disagree**
Circle the "3" if you **Mildly Disagree**
Circle the "4" if you **Neutral**
Circle the "5" if you **Mildly Agree**
Circle the "6" if you **Strongly Agree**
Circle the "7" if you **Very Strongly Agree**

- | | | |
|----|---|-----------|
| 1. | There is a special person around when I am in need. | 1 2 3 4 5 |
| | 6 7 | |
| 2. | There is a special person with whom I can share my | 1 2 3 4 5 |
| | joys and sorrows. | |
| | 6 7 | |
| 3. | My family really tries to help me. | 1 2 3 4 5 |
| | 6 7 | |
| 4. | I get the emotional help and support I need from my | 1 2 3 4 5 |
| | family. | |
| | 6 7 | |
| 5. | I have a special person who is a real source of comfort | 1 2 3 4 5 |
| | to me. | |
| | 6 7 | |

- | | | |
|-----|--|-----------|
| 6. | My friends really try to help me. 6 7 | 1 2 3 4 5 |
| 7. | I can count on my friends when things go wrong. 6 7 | 1 2 3 4 5 |
| 8. | I can talk talk about my problems with my family. 6 7 | 1 2 3 4 5 |
| 9. | I have friends with whom i can share my joys and sorrows. 6 7 | 1 2 3 4 5 |
| 10. | There is a special person in my life who cares about my feelings. 6 7 | 1 2 3 4 5 |
| 11. | My family is willing to help me make decisions. 6 7 | 1 2 3 4 5 |
| 12. | I can talk about my problems with my friends. 6 7 | 1 2 3 4 5 |

BRS/ The Brief Resilience Scale

Instructions: we are interested to see how you feel about the following statements.
Read each statement carefully. Indicate how you feel about each statement.

Circle the "1" if you **Strongly Disagree**
 Circle the "2" if you **Mildly Disagree**
 Circle the "3" if you **Neutral**
 Circle the "4" if you **Mildly Agree**
 Circle the "5" if you **Strongly Agree**

- | | | |
|----|--|-----|
| 1. | I tend to bounce back quickly after hard times. 3 4 5 | 1 2 |
| 2. | I have a hard time making it through stressful events. 3 4 5 | 1 2 |
| 3. | It does not take me long to recover from a stressful event. 3 4 5 | 1 2 |

- | | | |
|----|--|-----|
| 4. | It is hard for me to snap back when something bad happens. 3 4 5 | 1 2 |
| 5. | I usually come through difficult times with little trouble. 3 4 5 | 1 2 |
| 6. | I tend to take a long time to get over setbacks in my life. 3 4 5 | 1 2 |

LOT-R Revised Life Orientation Test

Instructions: we are interested to see how you feel about the following statements. Read each statement carefully. Indicate how you feel about each statement.

Circle the "0" if you **Strongly Disagree**
 Circle the "1" if you **Mildly Disagree**
 Circle the "2" if you **Neutral**
 Circle the "3" if you **Mildly Agree**
 Circle the "4" if you **Strongly Agree**

- | | | |
|----|---|-----|
| 1. | In uncertain times, I usually expect the best. 2 3 4 | 0 1 |
| 2. | It's easy for me to relax. 2 3 4 | 0 1 |
| 3. | If something can go wrong for me ,it will. 2 3 4 | 0 1 |
| 4. | I'm always optimistic about my future. 2 3 4 | 0 1 |
| 5. | I enjoy my my friends alot. 2 3 4 | 0 1 |
| 6. | It's important for me to keep busy. 2 3 4 | 0 1 |
| 7. | I hardly ever expect things to go my way. 2 3 4 | 0 1 |
| 8. | I don't get upset too easily. 2 3 4 | 0 1 |

9. I rarely count on good things happening to me. 0 1
2 3 4
10. Overall, I expect more good things to happen to me 0 1
2 3 4
than bad.

Abbreviated Maslach Burnout Inventory

Instructions: we are interested to see how you feel about the following statements.
Read each statement carefully. Indicate how you feel about each statement.

- Circle the "1" if you feel like this **Everyday**
- Circle the "2" if you feel like this **A few times a week**
- Circle the "3" if you feel like this **Once a week**
- Circle the "4" if you feel like this **A few times a month**
- Circle the "5" if you feel like this **Once a month or less**
- Circle the "6" if you feel like this **A few times a year**
- Circle the "7" if you feel like this **Never**

- | | | |
|----|---|-----------|
| 1. | I deal very effectively with the problems of my patients. | 1 2 3 4 5 |
| | 6 7 | |
| 2. | I feel I treat some patients as if they were | 1 2 3 4 5 |
| | 6 7 | |
| | impersonal objects. | |
| 3. | I feel emotionally drained from my work. | 1 2 3 4 5 |
| | 6 7 | |
| 4. | I feel fatigued when I get up in the morning and have to | 1 2 3 4 5 |
| | 6 7 | |
| | face another day on the job | |
| 5. | I've become more callous towards people since | 1 2 3 4 5 |
| | 6 7 | |
| | I took this job | |
| 6. | I feel I'm positively influencing other people's lives | 1 2 3 4 5 |
| | 6 7 | |
| | through my work | |
| 7. | Working with people all day is really a strain for me | 1 2 3 4 5 |
| | 6 7 | |
| 8. | I don't really care what happens to some patients | 1 2 3 4 5 |
| | 6 7 | |
| 9. | I feel exhilarated after working closely with my patients | 1 2 3 4 5 |
| | 6 7 | |

- | | | |
|-----|---|-----------|
| 10. | I think of giving up firefighting for another career 6 7 | 1 2 3 4 5 |
| 11. | I reflect on the satisfaction I get from being a firefighter 6 7 | 1 2 3 4 5 |
| 12. | I regret my decision to have become a firefighter 6 7 | 1 2 3 4 5 |

Perceived Stress Scale

Instructions: we are interested to see how you feel about the following statements. Read each statement carefully. Indicate how you feel about each statement.

Circle the "0" if you **Never**
 Circle the "1" if you **Almost Never**
 Circle the "2" if you **Sometimes**
 Circle the "3" if you **Fairly Often**
 Circle the "4" if you **Very Often**

- | | | |
|----|---|-----|
| 1. | In the last month, how often have you been upset 2 3 4 because of something that happened unexpectedly? | 0 1 |
| 2. | In the last month, how often have you felt that you were unable 2 3 4 to control the important things in your life? | 0 1 |
| 3. | In the last month, how often have you felt nervous and "stressed"? 2 3 4 | 0 1 |
| 4. | In the last month, how often have you felt confident about 2 3 4 your ability to handle your personal problems? | 0 1 |
| 5. | In the last month, how often have you felt that things 2 3 4 were going your way? | 0 1 |
| 6. | In the last month, how often have you found that you could not cope 2 3 4 with all the things that you had to do? | 0 1 |
| 7. | In the last month, how often have you been able 2 3 4 to control irritations in your life? | 0 1 |
| 8. | In the last month, how often have you felt that you 2 3 4 were on top of things? | 0 1 |

9. In the last month, how often have you been angered
2 3 4 0 1
because of things that were outside of your control?
10. In the last month, how often have you felt difficulties
2 3 4 0 1
were piling up so high that you could not overcome them?

Satisfaction with Work Scale

Instructions: we are interested to see how you feel about the following statements.
Read each statement carefully. Indicate how you feel about each statement.

Circle the "0" if you **Strongly Disagree**
Circle the "1" if you **Mildly Disagree**
Circle the "2" if you **Neutral**
Circle the "3" if you **Mildly Agree**
Circle the "4" if you **Strongly Agree**

1. In general, the type of work I do corresponds closely
2 3 4 0 1
to what I want in life
2. The conditions under which I do my work are
2 3 4 0 1
excellent
3. I am satisfied with the type of work I do
2 3 4 0 1
4. Until now, I have obtained the important things I wanted
2 3 4 0 1
to get from my work
5. If I could change anything a work, I would change almost
2 3 4 0 1
nothing

GHQ - General Health Questionnaire

We want to know how your health has been in general over the last few weeks. Please read the questions below and each of the four possible answers. Circle the response that best applies to you. Thank you for answering all the questions.

Have you recently:

1. been able to concentrate on what you're doing?

| | | | |
|-------------------|---------------|-----------------|----------------------|
| better than usual | same as usual | less than usual | much less than usual |
| (0) | (1) | (2) | (3) |

2. lost much sleep over worry?

| | | | |
|-----------------------|--------------------|------------------------|-----------|
| Not at all than usual | no more than usual | rather more than usual | much more |
| (0) | (1) | (2) | (3) |

3. felt that you are playing a useful part in things?

| | | | |
|--------------------|---------------|--------------------|----------------------|
| more so than usual | same as usual | less so than usual | much less than usual |
| (0) | (1) | (2) | (3) |

4. felt capable of making decisions about things?

| | | | |
|--------------------|---------------|-----------------|----------------------|
| more so than usual | same as usual | less than usual | much less than usual |
| (0) | (1) | (2) | (3) |

5. felt constantly under strain?

| | | | |
|------------------|--------------------|------------------------|----------------|
| Not at all usual | no more than usual | rather more than usual | much more than |
| (0) | (1) | (2) | (3) |

6. felt you couldn't overcome your difficulties?

| | | | |
|---------------------|--------------------|------------------------|----------------|
| Not at all usual | no more than usual | rather more than usual | much more than |
| (0) | (1) | (2) | (3) |

7. been able to enjoy your normal day to day activities?

| | | | |
|-----------------------------|---------------|--------------------|----------------|
| more so than usual usual | same as usual | less so than usual | much less than |
| (0) | (1) | (2) | (3) |

8. been able to face up to your problems?

| | | | |
|-----------------------------|---------------|-----------------|----------------|
| more so than usual usual | same as usual | less than usual | much less than |
| (0) | (1) | (2) | (3) |

9. been feeling unhappy or depressed?

| | | | |
|--------------------------|--------------------|------------------------|-----------|
| not at all than usual | no more than usual | rather more than usual | much more |
| (0) | (1) | (2) | (3) |

10. been losing confidence in yourself?

| | | | |
|---------------------|--------------------|------------------------|----------------|
| not at all usual | no more than usual | rather more than usual | much more than |
| (0) | (1) | (2) | (3) |

11. been thinking of yourself as a worthless person?

| | | | |
|--------------------------|--------------------|------------------------|-----------|
| not at all than usual | no more than usual | rather more than usual | much more |
| (0) | (1) | (2) | (3) |

12. been feeling reasonably happy, all things considered?

| | | | |
|----------------------------------|---------------|--------------------|-----------|
| more so than usual than usual | same as usual | less so than usual | much less |
| (0) | (1) | (2) | (3) |