

Department of Psychology

Maynooth University

PhD Thesis



***“The Forgotten Helpers? Life After the
Emergency Services”***

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ACRONYMS AND ABBREVIATIONS

CI	Critical Incident
CIS	Critical Incident Stress
CISM	Critical Incident Stress Management
DFB	Dublin Fire Brigade
HSE	Health Service Executive
IPA	Interpretative Phenomenological Analysis
NAS	National Ambulance Service
NASSS	National Ambulance Service Stress Survey
PTSD	Post-Traumatic Stress Disorder
QoL	Quality of Life

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SUMMARY

Background: The impact of emergency service work on the health and well-being of personnel has been well documented in the literature. Despite this, however, very little is known about the experiences of emergency service retirees and their Quality of Life (QoL). **Aims:** The principal aim of this study was to assess the overall QoL and well-being of retired emergency services (ambulance and fire) personnel. The specific objectives of the study were to: (1) ascertain the possible long-term effects, on overall QoL, of working in the emergency services; (2) explore the experiences and views of retirees; and (3) to gather information on retirement policies and procedures for emergency service personnel. **Method:** The study was conducted within a sequential mixed methods framework, and incorporated three key stages. Stage One involved interviews with key informants from emergency services (N=14) to investigate their views around current retirement policies and procedures. Stage Two employed a multi-questionnaire postal survey to garner information on retirement, QoL and post-trauma symptoms both in emergency service retirees (N=169) and in a comparison sample (N=140). In-depth one-to-one interviews with a sample of emergency service retirees (N=12, 7% of Stage Two sample) were conducted in Stage Three to supplement the survey findings and gather more in-depth information around retirement experiences. **Results:** The results suggest that life in the emergency services can potentially negatively impact QoL with possible long-term effects on overall health and well-being (e.g. significantly higher levels of Post-Traumatic Stress Disorder (PTSD) symptomatology, and significantly lower QoL in emergency service retirees). A number of common themes emerged across stages including: retirement as a major life change; the longer term impact of trauma; the importance of support and guidance for retirees; and a need for employers to help improve the transition to retirement through

appropriate procedures, practices and policies. **Conclusion:** Collectively, the findings demonstrate that there is a need to: ease the transition to retirement; improve in-service trauma management; and implement appropriate and effective health promotion strategies (e.g. resiliency training) to help mitigate the longer term impact of trauma in this occupational sub-group.

CHAPTER ONE: INTRODUCTION

“May you never forget what is worth remembering, nor ever remember what is best forgotten” Irish Blessing

This study attempts to capture the experiences of those who have retired from the emergency services and to ascertain if these men and women are our forgotten helpers. Is it sometimes best to forget, particularly in the case of trauma and sorrow we have experienced? There are many questions which are, as yet, unanswered about this group of people, some of which this study will examine. There is a significant gap in the literature, in particular, around the possible longer term impact of trauma in emergency service personnel and it is evident that this sector of the population is very much under-researched.

1.1 Background

Emergency services include, but are not limited to: the ambulance service; the fire service; the coast guard; search and rescue services; and the police/Gardaí. Emergency service personnel play a crucial role in modern society performing duties that are both varied and expansive, from water rescue and firefighting, to responding to emergency calls. Paramedics, as well as other emergency personnel, work in an unpredictable environment and face a unique set of challenges in their day-to-day occupational role; they must operate in challenging and complex settings to undertake highly stressful tasks whilst also negotiating a wide range of medical and social issues (Sofianopoulos, Williams & Archer, 2012). Emergency service personnel regularly execute extraordinary duties which benefit, and often save, the lives of other people (Mitchell & Bray, 1990). Despite this extraordinary role, emergency personnel remain ordinary

human beings subject to the stresses and strains of daily life and the impact of exposure to traumatic events (Mitchell & Bray, 1990).

Anecdotal evidence suggests that most emergency personnel (and especially those from the fire service) receive a great deal of respect for their occupational role. There has been an increasing interest amongst social scientists in emergency personnel and, in particular, the role and impact which their occupation and associated lifestyle have on their physical and mental well-being. Indeed, the tragic events of September 11th 2001 (or “9/11” to which it is now widely referred) have contributed to growing interest in the impact of severe trauma on fire service personnel. The selfless heroism of emergency service personnel was highlighted in the aftermath of this incident (Eriksson, Foy & Larson, 2004).

A wealth of information is available on the short-term impact of trauma exposure on the physical and mental well-being of emergency service personnel (e.g. Alexander & Klein, 2001; Mitani, Fujita, Nakata & Shirakawa, 2006; and Maguen et al., 2009) whilst the role itself has been shown to negatively affect physical and psychological health (e.g. Gallagher & McGilloway, 2009; Ward, Lombard & Gwebushe, 2006; and Wagner, McFee & Martin, 2010). However, little research has examined the extended role which this exposure may play in these people’s lives and to what extent the effects of trauma exposure persist into retirement. In fact, there is little research in relation to any aspect of the lives of retired emergency service personnel, to date, either in Ireland or internationally. Therefore, it is important that social researchers do not disregard the study of emergency personnel once they have retired from their occupation and that they understand the significance of the impact of retirement on these individuals, particularly in view of the increasing emphasis on research on older people.

In Ireland, during the past 100 years, emergency personnel have dealt with a number of major incidents including, for example: the Cavan orphanage fire of 1943 in which 35 children and one adult died; the Stardust fire of 1981 in which 48 young people died; the Buttevant rail disaster of 1980; the Dublin and Monaghan bombings of 1974; the Derrybrien landslide of 2003; the crash of Aer Lingus flight 712 in 1968 killing all passengers and crew; and the Navan bus crash in 2005 in which five teenage girls were killed. Despite being a small country, Ireland has dealt with a number of major incidents and emergencies over the years. Arguably, because Ireland is such a small country, these incidents are more significant to emergency service personnel than perhaps they would be in larger countries where such incidents are more commonplace. For the same reason, it is more likely that emergency personnel in Ireland will have a personal connection to their victims/patients, which often makes incidents more difficult to manage. Indeed, Eriksson et al. (2004) state that most emergency personnel respond to the needs of their home town or region, a few miles from their home, family, and workplace. The Stardust fire of 1981, in particular, had a profound impact on the people of Ireland¹ (Fetherstonhaugh & McCullagh, 2006; Herbert, 2013).

1.2 The Current Study

The idea for this study arose a number of years ago within the National Ambulance Service (NAS) Critical Incident Stress Management (CISM) Committee when a Committee member suggested that some research should be undertaken to examine the experiences of retired ambulance service personnel. This Committee has commissioned several research studies in the past (including the National Ambulance Service Stress Survey; NASSS). For example, the National Ambulance CISM Research Programme at

¹ A fire which took place at the Stardust nightclub in Artane, Dublin in February 1981 resulting in the death of 48 young people.

Maynooth University was commissioned by the NAS CISM Committee and involved a series of building block studies undertaken by the CISM team at Maynooth University to examine stress and CISM amongst ambulance and fire service personnel. The author worked as part of this research team and it was this work that led to the current study, following extended discussions with the PhD supervisor and extensive literature reviews which revealed a gap in our knowledge around emergency service retirees.

The principal aim of the current study was to assess the overall Quality of Life (QoL) and well-being of retired emergency service personnel. Specifically, the study aimed to ascertain the possible long-term effects, on overall QoL, of working in the emergency services and to identify and critically assess possible care procedures for emergency service retirees. The study focused on an assessment of a broad range of aspects of the lives of emergency service personnel (specifically ambulance and fire service personnel) and also investigated, by way of a comparison, the experiences of those retired from a non-emergency service background. A secondary aim of the study was to gather data and information on retirement policies and procedures for emergency service personnel. These secondary data provided a context for the primary data to enable a deeper understanding of the study findings whilst also enabling greater insights into retirement and the transition to retirement.

The central research questions of this study are as follows:

- Which factors, if any, influence QoL, well-being, and trauma symptoms in retirement?
- How do personnel make the transition to retirement?
- What are the experiences of retired emergency personnel and how do they feel about their retirement and the impact which this has had upon them?

- How can the study findings be used to enrich our understanding of retirement and the transition to retirement?
- What are the current policies and procedures for retirement within the emergency services and what are the views of personnel on these?

The emergency services that took part in this study were the NAS and Dublin Fire Brigade (DFB). These are the largest and best known providers of ambulance and fire services within the Republic of Ireland and were, therefore, ideal for the current study.

The National Ambulance Service

The NAS is part of the larger Health Service Executive (HSE) and operates on a three-region basis which encompasses the NAS West, NAS South and NAS North Leinster. The NAS leadership team is the uppermost point in the NAS hierarchical management structure and comprises the following: Director of the NAS; three Area Operations Managers; a Control and Performance Manager; a Medical Director; a Head of Education and Competency Assurance; a Workforce Support Manager; and a Fleet, Logistics and Support Manager. Functional support is provided to the leadership team by means of a number of services, such as corporate employee relations and procurement and contracts.

Each region of the NAS has an area operations team which includes: Area Operations Manager; Operations Performance Manager; Operational Support and Resilience Manager; Control Managers; Operations Resource Managers; Performance, Information and ICT Project Support Manager; Fleet, Logistics and Estates Manager; Quality, Safety and Risk Manager; Control Supervisors and Paramedic Supervisors. Thus, there is a range of different roles within the hierarchical NAS structure. Support systems currently in place within NAS include provision of CISM services (defusing and

debriefing and peer support) whilst further support is available through HSE occupational health services. The NAS was selected as the ambulance service for this study as it is the only statutory ambulance service in the country as well as being the only national ambulance service in Ireland.

Dublin Fire Brigade

DFB was established in 1862 and has expanded considerably since then to provide fire cover for Dublin city and county, as well as providing an emergency ambulance service for much of Dublin. DFB also operates a control room which mobilises fire appliances in five counties in Dublin and the surrounding areas. In general, firefighters rotate from ambulance to fire duties as all personnel are trained both as Emergency Medical Technicians and firefighters. The command structure within DFB is as follows: Chief Fire Officer, Assistant Chief Fire Officer; Third Officer; District Officer; Station Officer; Sub-Officer; and Firefighter. Support systems currently in place within DFB include the provision of CISM services (defusing and debriefing and peer support), and counselling services are also available through Dublin City Council, where required.

Outside of Dublin, county fire services operate fire services. For the most part, except for three to four major cities and towns, these fire stations and their personnel operate on a retained basis (i.e. personnel are professional firefighters who may have full-time employment outside of the fire service and respond to emergency calls within their local area as and when required). Due to the fact that retained personnel operate on a more part-time basis (although personnel may be on call 24/7), it was deemed unsuitable to include them within this study because they represent a separate participant group.

At the outset, this study was exploratory in the sense that the researcher began with a number of central research questions which helped to inform the research as it

progressed and allowed the research process to flow naturally. The current study is designed to address gaps in the literature identified around the long-term impact of emergency service work and trauma exposure on QoL and well-being in retirement. QoL refers to the overall well-being of a person; indicating how one fares in several dimensions of life which reflect important societal values and goals (Delhey, 2004). The World Health Organisation (WHO, 1997, p.1) describes QoL as an “individual’s perception of their position in life in the context of the culture and value systems in which they live and in relation to their goals, expectations, standards and concerns.” Health-related QoL encompasses health as well as other widely valued aspects of life such as income, freedom and quality of the environment (Guyatt, Feeny & Patrick, 1993). Whilst health-related QoL is an important measurement of the impact of chronic disease (Patrick & Erickson, 1993), QoL is the best known patient reported outcome (DeMaeyer, Vanderplasschen & Broekaert, 2010) and there is general acceptance that QoL is a good indicator of successful ageing (McGee, Morgan, Hickey, Burke & Savva, 2011). In the past 10-12 years, there has been an increasing focus on QoL in research amongst the older community (Hickey, O’Hanlon & McGee, 2010).

1.3 Chapter Overview

The remainder of this thesis provides a review of relevant literature, an outline of the methods used in conducting the study, a documentation of the results which arose from the analysis of data collected, and a critical analysis and discussion of the results in the context of relevant literature. A brief summary of the subsequent chapters in the remainder of this thesis is given below.

Chapter Two: Literature Review I

This chapter explores literature, past and present, which is relevant in the context of this study, and provides an important backdrop to the current study, whilst also highlighting gaps in our knowledge. Important areas explored include: occupational stress; impact of trauma; and stress in the emergency services.

Chapter Three: Literature Review II

Important areas of literature explored within this chapter include retirement and older persons, and emergency service retirees.

Chapter Four: Method

This chapter describes, in detail, the methodological approaches used in each of the three stages of the study as well as other relevant information (e.g. epistemological framework, ethical considerations etc). A detailed outline of each stage of data collection and analysis is provided.

Chapter Five: Results Stage One

This chapter provides the results of the thematic analysis of interviews which were conducted with key informants from the ambulance and fire services. The themes that were identified are outlined and discussed using illustrative quotes. This chapter provides a useful and important context for Chapters Six through to Eight. Key findings outlined in this chapter relate to: retirement age and related factors; the availability of supports for retirees; improving the transition to retirement; nature, and extent of, current contact with retirees; and facing one's own retirement.

Chapter Six: Results Stage Two

Chapter Six presents the results from Stage Two of the study which involved a quantitative analysis of data collected from emergency and non-emergency service

retirees. This analysis investigated correlations and relationships between various variables in order to examine QoL within- and between-participant groups. Comparisons and analysis were conducted in order to investigate a number of possible linkages and relationships. Key findings outlined in this chapter include: participant profile; retirement background; QoL; emergency services group experience of traumatic events; comparison group experience of trauma; potential impact of trauma; social support; and other findings.

Chapter Seven: Results Stage Three

This chapter describes the results of Stage Three of the study which involved a series of in-depth one-to-one interviews with emergency service retirees. This chapter explores the experiences of emergency service retirees to provide a clear insight into their lives and experiences. A number of key themes emerged from the analysis, each of which is outlined in detail within this chapter. These include: retirement as a major life change; impact of working role; prior commitment to the job; health and ageing; trauma; and the insular nature of emergency services.

Chapter Eight: Stage Three Case Studies

This Chapter continues to outline the findings from Stage Three by presenting two case studies of emergency service retirees who have reported poor QoL. The purpose of this Chapter is to explore contributory factors to reduced QoL in retirement for emergency service personnel.

Chapter Nine: Discussion

This chapter provides a synthesis and critique of the results outlined previously in Chapters Five to Eight. The results from these chapters are integrated in order to help address the central research questions. The chapter examines the results in the context

of the international literature, and explores the contribution of the study in the context of possible confounding variables. Suggestions for future research are also provided, as well as recommendations and implications for the ambulance service and fire service in improving the retirement process and the transition to retirement for their employees.

CHAPTER TWO: LITERATURE REVIEW I

The current chapter provides the background and context to the research in the form of an overview of national and international literature in a number of relevant areas including occupational stress, impact of trauma, and stress in the emergency services.

2.1 Occupational Stress

There is an extensive established literature on occupational stress and its impact on overall health and well-being (e.g. Antoniou, Davidson & Cooper, 2003; Buddeberg-Fischer, Klaghofer, Stamm, Siegrist & Buddeberg, 2008). It is now widely acknowledged that prolonged exposure to excessive occupational demands can lead to poor physical and mental health, increased sick leave and lower productivity (Cocker, Martin, Scott, Venn & Sanderson, 2012; Danna & Griffin, 1999; Sparks, Faragher & Cooper, 2001; Tennant, 2001). For example, according to Allen, Herst, Bruck and Sutton (2000), work-nonwork life conflict has been found to be negatively correlated with life satisfaction. Notably, there is an optimal level of stress at which performance is maximised – in line with the Yerkes-Dodson law (1908) - but this section relates to levels of occupational stress that exceed normal optimal stress levels.

Evidence for the impact of occupational stress on mental and physical health has been built upon by many well established researchers in the field. Research has demonstrated that work stress and trauma exposure may put individuals at a greater risk of developing depressive symptoms (Wang et al., 2010; Yoshida, Yamada & Morioka, 2014). Occupational role has also been linked to physical health, with potential long-term implications. For example, Russo et al. (2006) reported that a lifetime history of manual work, particularly when compounded by high physical stress, was independently associated with low physical function and muscle strength in old age

(persons aged 80 or over). In line with this, the Health and Safety Executive (2014) reported that in 2012/2013 in the United Kingdom (UK), 1.2 million people were suffering from an illness they indicated was caused by, or worsened by, their work, with 23.5 million days lost due to work-related ill health.

Numerous studies have provided evidence for the theory that occupation has an influence on well-being and health across a variety of occupations (e.g. Bowen, Edwards, Lingard & Cattell, 2014; Law, Steinwender & LeClair, 1998). It has been reported that increased exposure to job demands can lead to a number of negative outcomes such as inadequate sleep, pain medication use, and absenteeism (Trinkoff, Storr & Lipscomb, 2001). Even the perception of an excessive workload, in either professional or family life, leads to a significant reduction in life satisfaction (Kotowska, Matysiak, Styrc, Pailhé, Solaz, & Vignoli, 2010). In a study of stress and chronic disease in ageing and retired workers, it was found that prolonged stress was associated with overall morbidity (Salonen, Arola, Nygard & Huhtala, 2008). In the same study, higher scores on stress symptoms were associated with many illnesses including: musculoskeletal disorders; endocrine and metabolic diseases; and mental disorders (Salonen et al., 2008). Occupational stress has also been shown to be associated with other physiological changes such as reductions in brain tissue volumes (Blix, Perski, Berglund & Savic, 2013), and higher prevalence of overactive bladder and other lower urinary tract symptoms (Zhang et al., 2013). These findings are in line with general adaptation syndrome, originally proposed by Selye (1956), which referred to the responses of the body to stress and provided a useful framework for the link between stress and chronic illness.

In a groundbreaking study, Johnson and colleagues (2005) conducted a study of occupational stress across a broad range of occupations (26 in total) in the UK and found that, while occupations such as analysts and accountants had low rates of occupational stress, others such as ambulance personnel, teachers and police, were exposed to high levels of stress in their occupational role. Six occupational groups reported below average levels of physical health, psychological well-being, and job satisfaction including: ambulance workers; teachers; social services; customer services; prison officers; and police (Johnson et al., 2005). The authors highlighted the potential causal relationship of high emotional labour in high stress jobs and lower scores on each of these factors (Johnson et al., 2005). Notably, the measurement tool used in this evaluation (ASSET Stress Questionnaire) was quite brief and the study included no consideration of trauma exposure as part of the occupational role, nor did it consider shiftwork as a contributory factor to reduced health and well-being.

In healthcare workers, a high level of occupational stress has been linked to high expectations with often not enough time, skills or social support available, and this has a consequential impact on physical and mental health (Ruotsalainen, Verbeek, Mariné & Serra, 2014). Job stressors and occupational stress have also been shown to be associated with lower job satisfaction, as well as lower level of job commitment (Sang, Teo, Cooper & Bohle, 2013). Importantly, a high level of occupational stress has been linked to increased staff turnover rates (Adriaenssens, De Gucht & Maes, 2013), demonstrating the organisational, as well as individual, impact of occupational stress. Thus, occupational stress may have negative effects on the individual in terms of: physical and mental health; satisfaction and commitment to the job; and overall organisation and productivity. In view of the potential negative impact of occupational stress, it is important to note that not everyone is attracted to occupations with high-

stress environments. This is consistent with the 'person-environment fit model' which describes the degree to which the individual and environmental characteristics match (Caplan, 1987). Thus, it is likely that there is a degree of self-selection in high stress occupations based on individual characteristics such as resiliency and enjoyment of high adrenaline situations.

Workplace trauma also has a serious impact on employees and organisations (Tehrani, 2004). Post-traumatic stress is a concept acknowledged only in the past 20 to 30 years, according to Tehrani (2004). An increasing amount of evidence suggests that symptoms similar to those caused by a single traumatic event can manifest as a result of chronic exposure to stressful conditions such as workplace bullying or extreme pressure (Tehrani, 2004). Interpersonal conflict can have a sizeable effect on a large number of members of the organisation (Tehrani, 2004). Organisations in which workers are exposed to trauma are required to provide appropriate levels of support to employees (Tehrani, 2004). Reports of workplace violence are on the increase and are very common in professions which provide support to those in distress (Tehrani, 2004). There are two protective barriers against the effects of trauma; the first of these is pre-trauma training and preparation and the second is organisational and peer support, debriefing and counselling (Mitchell & Bray, 1990). Eriksson et al. (2004) also stated that resiliency against post-traumatic symptoms can also be increased through pre-incident training and preparation. However, this is somewhat controversial as some have suggested that PTSD risk can be increased by taking part in debriefing (Rose, Bisson, Churchill & Wessely, 2002). Notably though, the systematic review by Rose et al. only assessed the use of single session debriefing which is not designed to be used within a comprehensive stress management system and, therefore, does not accurately assess debriefing in a CISM context (Deahl, 2000).

An important aspect of the occupational role which must be studied when examining the potential impacts of occupation on health and well-being, is shiftwork. It is widely accepted that shift workers have more health ailments than the general population (Paim et al., 2008). Shiftwork can also negatively influence psychological health, as well as other aspects of work and personal life (Sofianopoulos et al., 2012). For example, a number of physical conditions have been found to be strongly associated with shiftwork, such as peptic ulcers; coronary heart disease; and compromised pregnancy outcomes (Knutsson, 2003). Numerous studies have also documented an increased prevalence and risk of cancer in shift workers (e.g. Hansen & Stevens, 2012; Haus & Smolensky, 2013). Furthermore, Suwazono et al. (2008) reported that alternating shiftwork patterns are a risk factor for weight gain, although age and drinking habits were also highlighted as being negatively associated with Body Mass Index (BMI). Suwazono's study was conducted on a longitudinal basis so these findings are important as they demonstrate that the negative impact of shiftwork may operate on a continuum. Similarly, Sookoian et al. (2007) reported that rotating shift workers demonstrated elevated BMI, waist-hip ratio, and blood pressure.

Others have reported that shiftwork negatively affects physiological functioning by disrupting the circadian rhythms (Knutsson, 2003); in a study which assessed sleep complaints in shift workers, 35% reported sleep complaints with 80% of these meeting the criteria for a sleep disorder (Paim et al., 2008). It is stated that shiftwork sleep disorder (SWSD) is a quite common but under-acknowledged and, by consequence, under-treated, condition with a high risk of medical, social, economic and QoL consequences (Schwartz & Roth, 2006). Sufferers of SWSD have been found to be at an increased risk of experiencing gastrointestinal and cardiovascular disease, as well as excessive sleepiness or insomnia (Schwartz & Roth, 2006). Therefore, sleep disruption

is, arguably, a major contributor to the impact of shiftwork on physical health. Indeed, this is of particular importance in emergency service workers who have been identified as being at increased risk for the development of cardiovascular diseases as a result of acute and chronic stress (Hegg-Deloye et al., 2014).

Notably, whilst a number of the shiftwork studies outlined above focused specifically on those in high stress or high trauma occupations, such as paramedics or nurses (e.g. Sofianopoulus et al., 2012), others examined the impact of shiftwork on general workers and those in occupations not ordinarily exposed to high levels of stress and/or trauma exposure. Arguably, the potential negative impact of shiftwork is more significant in those in emergency service personnel as the effects are compounded by the high stress nature of the occupation. Importantly, Sofianopoulus et al. (2012) conducted a literature search on the impact of shiftwork on providers of pre-hospital emergency care and found that while the impact of shiftwork has been extensively researched in other health service provider occupations, the effect of shiftwork on paramedics remains under examined and there is a need for further research in this area.

In summary, based on the above literature on occupational stress, it is clear that emergency service personnel are exposed to a significant level of occupational stress due to the nature of their role with a subsequent potentially negative impact on health and well-being. Notably however, many emergency service personnel deliberately choose this kind of work and may be drawn to the high-adrenaline nature of the job, as well as the high level of task variety. Nonetheless, the impact of occupational stress is an important issue to be considered in the current study as research has shown that those who are retired have higher levels of subjective well-being than those working (when other factors such as income were controlled for), thereby suggesting that occupational

stress and the difficulty of combining work and family life play a significant part in negatively affecting the subjective well-being of those in employment (Watson, Pichler, & Wallace, 2010).

2.2 Impact of Trauma

Experiencing trauma is something which is almost unavoidable in life; be it the death of a loved one, natural disaster, witnessing an accident etc. Most adults will encounter one or more potentially traumatic events during their lives (Bonanno, 2005; Shakespeare-Finch, Smith, Gow, Embelton & Baird, 2003). The reaction to traumatic events may vary greatly from person to person (Shakespeare-Finch et al., 2003) and each individual is influenced by trauma in a different way (Pat-Horenczyk & Brom, 2007). There is a growing interest in traumatic events and their subsequent psychological effects, and research has shown the negative mental health effects of distressing events (Kazantzis, Flett, Long, MacDonald, Millar, & Clark, 2010). Klein and Alexander's (2009) review of the prevalence of trauma exposure in the community indicated that, despite variations across (the 16 included) studies, it was consistently reported that most people experience at least one traumatic event in their lifetime. The authors highlighted that, although only a minority of those exposed will develop PTSD, the lifetime prevalence rate should not be ignored. Importantly, PTSD is a syndrome comprising three symptom groups defined in terms of their connection to a specific traumatic event including: (1) re-experiencing the traumatic event; (2) avoidance of stimuli associated with the event and emotional numbing; and (3) increased arousal (Breslau, 2009). Interestingly, the lifetime prevalence of trauma exposure in Northern Ireland was reported to be 66.3% amongst a sample of 3100 adults (18-93 years), whilst the prevalence of PTSD was found to be only 8.5% (Ferry, Bolton, Bunting, McCann & Murphy, 2008). Arguably, however, the potential for comparison with the Republic of

Ireland is limited due to the increased level of trauma exposure in Northern Ireland as a result of ‘the Troubles’ which occurred only in Northern Ireland.

2.2.1 Potential negative impact

There is substantial evidence demonstrating the negative effects of trauma on mental health (Flett Kazantzis, Long, MacDonald & Millar, 2002). The symptoms and problems which someone may experience following trauma are quite diverse and range from limited to severe (Follette & Pistorello, 2007). Arguably, the effects of trauma can be cumulative and a person is not likely to “get used to” experiencing or witnessing trauma (Folette & Pistorello, 2007). While some experience some initial maladjustment in response to the trauma and go on to make a full recovery, others may experience recurring psychological difficulties, or a series of symptoms which worsen as time passes, resulting in long-lasting symptomatology (Folette & Pistorello, 2007). This is in line with revisions to DSM-5 which indicate that it is not necessary for an event to be experienced as threatening or fearful at the time, in order for post-trauma symptoms to subsequently develop.

Trauma may result in the experience of post-traumatic stress symptoms and reduced psychological well-being (Kazantzis et al., 2010). According to McNally (2003), there has been significant controversy surrounding research on PTSD due, in large part, to a lack of consensus on the risk factors of PTSD. It has been argued that both risk and resilience factors (e.g. features of the event, individual differences, and features of post-trauma environment) contribute to the likelihood that exposure to trauma will have long-term effects on mental health (King et al., 2004). Thus, risk factors tend to be associated with an increase in the likelihood of PTSD, whilst resilience factors are associated with a decrease (King et al., 2004).

Brewin, Andrews and Valentine (2000) conducted a meta-analysis of risk factors for PTSD, in which three categories of risk factors were determined including those which: (1) predicted PTSD in some populations (e.g. education and age at trauma); (2) predicted PTSD more consistently (e.g. previous trauma and general childhood adversity); and (3) had more universal predictive effects (e.g. psychiatric history and reported childhood abuse). The predictors of PTSD and its symptoms were further studied by Ozer, Best, Lipsey and Weiss (2003) through a meta-analysis in which seven predictors of PTSD were reported including: prior trauma; prior psychological adjustment; family history of psychopathology; perceived threat during the trauma; post-trauma social support; peri-traumatic emotional responses; and peri-traumatic dissociation. All of these factors yielded significant effect sizes, with the last of these having the largest effect size.

In other research, factors such as trauma severity, lack of social support, and additional life stress have been found to compound the effects of the traumatic event (Brewin et al., 2000; King et al., 2004). Some authors have also emphasised the importance of social support in the prevention of post-trauma distress. For example, King et al. (2004) reported that in the post-trauma environment, those who are provided with higher levels of social support are less likely to suffer from PTSD than those with low levels of social support. Similarly, Charuvastra and Cloitre (2008) stated that perceptions of social support before and after the traumatic event are also an important factor in the risk of developing PTSD. Furthermore, Sherbourne, Meredith, Rogers and Ware (1992) stated that provision of social support is beneficial for health over time regardless of age, with low levels of social support especially harmful for the physical functioning and health of older persons. Likewise, other researchers have argued that social support and support from colleagues are effective coping strategies in reducing distress and

increasing resiliency following a Critical Incident (e.g. Eriksson et al., 2004); a Critical Incident may be defined as “a major positive or negative event of great importance to the person involved” (Kontio, Lundgren-Laine, Kontio, Korvenranta & Salanterä, 2011, p.211).

The nature of the traumatic event has also been found to be important. For example, King et al. (2004) argued that traumas which are malicious, grotesque, or which involve injury, are more likely to lead to PTSD. Others have argued that research consistently shows that human-generated traumatic events lead to a greater risk of PTSD than exposure to other kinds of traumatic events (Charuvastra & Cloitre, 2008). While a significant amount of research has demonstrated that prior trauma can sensitise individuals to future trauma, other studies have shown that prior trauma may act as a buffer to the impact of any subsequent trauma (King et al., 2004).

Interest in the impact of stress and trauma on those who experience traumatic situations and events in the course of their day-to-day occupational duties, began as a result of the Vietnam war. Numerous authors reported on the harmful effects of the combat experience, trauma exposure, and participation in abusive violence (e.g. Bremner et al., 1992; Laufer, Gallops & Frey-Wouters, 1984; Marmar et al., 1994). More recently in the 1980s, Solomon and colleagues conducted a series of studies which showed, for example, that the increasing age of soldiers in the Israeli war, was associated with an increased risk of psychological injury (e.g. Solomon & Bennishty, 1986; Solomon, Noy & Bar-On, 1986 (a, b)). The authors attributed this increased risk of psychological injury to lower levels of education (Solomon, Noy & Bar-On, 1986). In sum, the risk factors which were found to be associated with psychological injury were: aged 26 or

over; reservist in the army; low education level; low combat suitability; and low military rank (Solomon, Noy, & Bar-On, 1986).

Interest in the impact of trauma exposure continued throughout the last 20 years with much of the work encompassing a number of different categories of trauma, populations, and life stages. For example, Krause, Shaw and Cairney (2004) examined the relationship between trauma exposure over the life course and physical health in old age. The authors linked trauma exposure with ill health in old age; with trauma occurring between the ages of 18-30 years and 31-64 years having the strongest relationship with health in old age (Krause et al., 2004), thereby highlighting the potential impact of lifetime trauma in older age. The effects of lifetime-accumulated trauma on mental health in later life in older adults (N=1216, aged 65-94 years) was also investigated by Dulin and Passmore (2010) in community based settings in New Zealand, with some similar findings to Krause and colleagues. It was found that accumulation of trauma predicts depression (as measured by the Geriatric Depression Scale-Short Form) and anxiety (as measured by the anxiety subscale of the Stanford Acute Stress Reaction Questionnaire) in older age. Traumatic experiences during young adulthood and middle age were more accurate predictors of anxiety and depression among older adults than trauma experienced in childhood or adolescence (Dulin & Passmore, 2010). Similar to Krause et al. (2004), the authors argued that accumulated lifetime trauma, as measured by the Traumatic Events Questionnaire, has detrimental effects on physical health in older adults, and that avoidance processes can promote and/or maintain a variety of mental illnesses.

By contrast, Ogle, Rubin and Siegler (2013) reported that older adults who had experienced their most distressing traumatic event during childhood exhibited more

severe PTSD symptoms and lower levels of subjective happiness when compared to those who experienced their most distressing trauma in adulthood. This highlights the enduring nature of the impact of trauma. The combined findings here on the impact of previously experienced trauma in older adults, highlight the enduring nature of traumatic events experienced early in life and emphasise the long-term consequences of trauma exposure (Ogle et al., 2013).

2.2.2 Potential positive outcomes

While trauma exposure is a normal part of life, the negative effects of sustained exposure have been well documented. Despite this, psychopathology only occurs in a minority of those exposed to traumatic events (Peterson, Park, Pole, D'Andrea & Seligman, 2008). It is also important to remember that negative outcomes represent only one possibility in a variety of post-trauma outcomes (Shakespeare-Finch et al., 2003), although most models of stress tend not to emphasise the positive effects of stress and trauma (Folkman & Moskowitz, 2000). Indeed, most people adjust to, and recover successfully from, trauma through the passage of time (King, Vogt & King, 2004). Positive outcomes of stressful events include new coping skills, perceived self growth, and a spiritual transformation (Folkman & Moskowitz, 2000). Historically, the idea that life crises or trauma can lead to positive change has emerged in the study of philosophy and religion, as well as ancient literature, although this concept has only been examined in social science since the mid 1990s (Prati & Pietrantonio, 2009).

More recent research on hardiness and resilience – undertaken as part of the ‘positive psychology’ movement - has also demonstrated that the most common reactions among adults to potentially traumatic events involves a relatively stable pattern of healthy functioning and a continuing capability for positive emotion and generative experiences (Bonanno, 2005). Resilience may be defined as a “dynamic process encompassing

positive adaptation within the context of significant adversity” (Luthar, Cicchetti & Becker, 2000, p.543); it has also been described as flourishing with high levels of mental health despite high levels of stress (Boshoff, Potgieter, van Rensburg & Ellis, 2014). However, resilience is not a unitary characteristic; while someone may display resiliency in respect to some stressors, they may respond differently to other stressors or outcomes (Peterson & Seligman, 2004). Indeed, resiliency is a very important concept in the field of occupational stress, as research has demonstrated that such positive psychological resources contribute significantly to job performance, job satisfaction, work happiness, and organisational commitment (Youssef & Luthans, 2007).

It has been further demonstrated that daily positive emotions can act as a moderator of stress reactivity, and can mediate stress recovery, whilst differences in psychological resilience have also been found to be associated with differential emotional responses to daily stress (Ong, Bergeman, Bisconti & Wallace, 2006). For instance, positive emotions can help highly resilient individuals to recover better from the stress of daily life (Ong et al., 2006). According to Kobasa, Maddi and Kahn (1982), hardiness, a related construct, involves commitment, control and challenge, which helps to reduce the potentially negative effects of stressful life events. In one study of resilience and its correlates by Campbell-Sills, Cohan and Stein (2006), resilience was found to be negatively associated with neuroticism, and positively related to extraversion and conscientiousness. Considerable differences in resiliency were accounted for by coping styles; task-orientated coping was positively related to resilience, and mediated the relationship between conscientiousness and resilience whilst emotion-oriented coping was associated with low resilience (Campbell-Sills et al., 2006). Researchers have attempted to establish the various aspects and components of resiliency, of which there are both environmental and internal determinants (Peterson & Seligman, 2004). For

example, Kumpfer (1999) argued that that internal components of resiliency included: spiritual/motivational factors (e.g. hope and optimism); cognitive competencies (e.g. interpersonal awareness and intelligence); behavioural/social competencies (e.g. humour and recognition of feelings); and physical well-being and physical competencies. Evidently therefore, a number of components of resiliency may be relevant both within and beyond the work environment.

Resiliency is closely related to hardiness, stress-resistance, and post-traumatic growth, and the emphasis on these concepts reflects the increased focus on positive psychology in recent decades. According to Flannery (2003), a reasonable mastery of daily events, caring attachments to others, and a meaningful purpose in life are the three basic capacities which lead to good physical and mental health and a feeling of well-being. Flannery (2003) used the term “stress-resistant persons” to refer to those individuals who seem better able to cope with the ups-and-downs of daily life and who are able to minimise the potential negative effects of life stress on health and well-being. Reasonable mastery relates to the ability of skills to shape and influence events in life so that the outcomes are beneficial to the individual (Flannery, 2003). In order to develop these reasonable mastery skills, stress-resistant individuals use personal control, basic health practices, and a sense of humour (Flannery, 2003).

Flannery (2003) further argued that the following characteristics are associated with stress-resistant individuals: taking personal control; being task involved; making wise lifestyle choices (e.g. reducing consumption of caffeine and nicotine, and increasing exercise and relaxation exercises); seeking social support; having a sense of humour; and having religious values or a sense of concern for others. Stress-resistant persons make commitments to others, establish social networks of friends, and are concerned

with the welfare of others, and concern for the welfare of others is often used by stress-resistant persons as a meaningful purpose in life (Flannery, 2003). Flannery (2003) argued that it is best to work on developing the characteristics of stress-resistance over time as there is no 'quick fix'. Similarly, Luthans, Vogelgesang and Lester (2006) highlighted the importance of developing 'psychological capital' in the form of resiliency and this might be considered to be especially the case when working in high stress or high trauma environments.

Changes in personality can occur as part of the adjustment process to new appraisals and when these changes incorporate a positive change in schema, this is referred to as post-traumatic growth (Joseph & Linley, 2008). Post-traumatic growth involves an increased development of psychological well-being and is a universal human tendency to pursue adjustment following changes in life, and not only in times of trauma (Joseph & Linley, 2008). Three broad areas of post-traumatic growth exist (Taku, Cann, Calhoun & Tedeschi, 2008; Tedeschi & Calhoun, 1996) including: changes in perception of self (resiliency, increased sense of personal strength, and developing new opportunities); changes in interpersonal relationships (greater compassion and an increased sense of closeness in relationships); and changes in philosophy of life (increased appreciation for each day). Cognitive appraisal plays an important part in post-trauma adjustment and growth (Joseph & Linley, 2008). Importantly, post-traumatic growth in emergency service personnel has been found to be associated with a number of factors including: gender (being female); attendance at Critical Incident Stress Debriefing; occupational support; occupational satisfaction; and personal characteristic resources (Sattler, Boyd & Kirsch, 2014).

The concept of post-traumatic growth remains controversial due to measurement difficulties and other difficulties (Peterson et al., 2008) including a lack of consensus in relation to the how it should be defined; studies of post-traumatic growth have demonstrated a broad variability in the nature of traumatic event studied, in the measurement of post-traumatic growth, and in the period of time since the traumatic event occurred (Pat-Horenczyk & Brom, 2007). There is also increasing contradictory evidence in relation to whether post-traumatic growth is associated with distress or with wellness (Pat-Horenczyk & Brom, 2007). It has been argued that it is not possible to understand post-traumatic growth without an understanding of post-traumatic stress, and vice versa (Joseph & Linley, 2008) because, importantly, positive affect and, therefore post-traumatic growth, can co-occur with distress (Folkman & Moskowitz, 2000). The literature in this area, however, appears to either favour investigating post-traumatic distress or post-traumatic growth in isolation, despite the potential for both to co-exist. Importantly, a focus on either distress or growth as a result of trauma exposure may explain why the evidence in this field is so mixed. Some major concerns have also emerged in other related areas including the nature of construct of resilience; variation in inter-domain functioning and risk experiences among ostensibly resilient children; instability in resilience; and theoretical concerns (Luthar et al., 2000). Nonetheless, post-traumatic growth and resiliency remain important aspects of trauma research.

Overall, the evidence suggests that some kind of trauma is experienced by most people during their lifetime. The study of trauma and its impact on health and well-being has consequently garnered a large following over the years, mostly due to the aftermath of World War II and the Vietnam war. It is clear that trauma may have a significant impact on the individual whilst the effects of trauma may also vary considerably from one person to the next, depending on a number of individual and situational factors.

Importantly, in some cases the impact of trauma involves a negative change in the form of distress and/or post-traumatic stress, whilst in other cases it may entail a positive change due to post-traumatic growth or resilience. Notably, the focus until recent decades, was on psychopathology rather than positive change as a result of exposure to trauma. Indeed, an expectation of positive change may explain, at least in part, why some individuals choose to work in a high trauma environment such as the emergency services, due to the scope for personal growth and meaning making.

2.3 Stress in the Emergency Services

One of the most distinctive characteristics of emergency service work is the reality of regular exposure to trauma; they see the devastation, smell the loss of life, and hear the screams and cries of victims and families (Eriksson, Foy & Larson, 2004). Emergency workers, including firefighters and paramedics, must cope with a range of work-related stressors including exposure to traumatic incidents (Beaton, Murphy, Johnson, Pike & Corneil, 1999), and they tend to be exposed to stress, trauma and adversity on a regular basis (Declercq, Meganck, Deheegher & van Hoorde, 2011; Jonsson, Segesten & Mattson, 2003; Kleim & Westphal, 2011). Similarly, Hegg-Deloye et al. (2014) argued that the everyday work burden of emergency personnel is characterised by both organisational and psychological challenges. Mental health disorders in emergency service personnel can lead to substantial personal and public costs, as well as negatively impacting work performance, and may compromise the quality of care provided to the public (Betlehem et al., 2014; Kleim & Westphal, 2011). Worryingly, emergency personnel are often insufficiently prepared for the emotional effects of dealing with traumatic incidents (Minnie, Goodman & Wallis, 2015). In recent years, there has been growing interest in, and concern about, the impact of work-related trauma amongst emergency services personnel, who are routinely exposed to potentially traumatic

incidents. This has encompassed research in a number of key areas, each of which is discussed further below and which include: physical health (including mortality and occupational injuries); mental health including PTSD, work-related stress and general psychopathology; and resiliency and acclimatisation.

2.3.1 Physical health

Sterud, Ekeberg, and Hem (2006, p.82), in a systematic review of 49 studies, found that ambulance workers “have a higher standardised mortality rate...and a higher standardised early retirement on medical grounds than the general working population.” Notably however, Wagner et al. (2006) reported that mortality rates decline in fire service personnel the later the year of employment; the authors also suggested that type of task is an important predictor of mortality. Thus, firefighters who spent more than half of their working time in administration had a reduced mortality rate when compared to those who spent the majority of their time ‘at the coalface.’). This is of great importance when considered in the context of a potential step-down facility in the lead up to retirement which may be, facilitated by providing the option for personnel to enter into more office-based positions in the later stages of their career.

There would appear to be a two-way relationship between health and stress in emergency service personnel. For example, research on ambulance and fire service personnel has demonstrated that major stress is experienced as a result of poor mental and physical health, with reported levels of physical and mental health of personnel significantly lower than the general population (Young & Cooper, 1997). The impact of overall stress in emergency service occupations was highlighted by Betlehem et al. (2014) who reported that ambulance personnel who felt more overall stress in their occupational role reported 2.1 times worse health and 1.9 times worse physical fitness than those with lower stress levels in their role. The most commonly reported physical

health symptoms were rheumatic pain in the neck, spine, and limbs (Betlehem et al., 2014), possibly attributable to the physical nature of the job. Ambulance personnel have also been shown to have a higher rate of musculoskeletal problems when compared to the general working population (Sterud et al., 2006). Research conducted in Ireland has found that ambulance personnel who had experienced Critical Incidents, reported, amongst other things, a wide range of physical and mental health problems, such as sleep difficulties, irrationality and angry outbursts (Gallagher & McGilloway, 2007). Importantly, sleep disorders and sleeping problems have also been identified across the literature as a common complaint amongst emergency personnel (Hegg-Deloye et al., 2014).

Work in the emergency services, by its nature, is quite physically challenging. Physical demands have been found to be a predictor of both emotional exhaustion and musculoskeletal pain while time pressure has also been found to be a predictor of emotional exhaustion (Sterud et al., 2011). The severity of challenging job-related tasks was also found to predict lower job satisfaction (Sterud et al., 2011), thereby emphasising the potentially significant impact of the demands placed upon emergency service personnel and further highlighting the challenging nature of the environment within which they work. Sterud et al. (2006) also reported that ambulance personnel, when compared to the general working population, have a higher rate of fatal accidents and of accidental injuries. Other research has also reported high rates of occupational injury among fire service personnel (Hill & Brunsden, 2009).

In an Irish context, the NASSS (2008) study showed that most Irish ambulance service personnel (93%) have been exposed to trauma, with the most commonly reported traumatic incident being a particularly disturbing suicide. Importantly, the subjective

impact of an event has been shown to have a significant effect on PTSD symptoms (Declercq et al., 2011). Other Irish research has found that the most distressing incidents for personnel to deal with were incidents involving children, suicides, and grotesque mutilation (Gallagher & McGilloway, 2007). In other Irish research on fire service personnel, several types of incidents were highlighted as having more of an impact on personnel than others including those: involving children; suicide; emotional connections; and incidents with a high level of media involvement or public scrutiny (Herbert, 2013). Likewise, the international literature has highlighted the particularly distressing nature of incidents involving: death or serious injury of children; people known to the caregiver; young people; and multiple deaths (Declercq et al., 2011; De Soir et al., 2012; Minnie et al., 2015).

2.3.2 Mental health

The need to confront traumatic events can result in a tremendous burden for emergency personnel (Eriksson et al., 2004). For example, it has been argued that firefighting is a high risk occupation in relation to trauma exposure (Wagner et al., 2010) and is, psychologically, a high risk occupation (Blaney, 2009). Mitani et al. (2006) also reported that burnout and stress are common in emergency service personnel and that PTSD is a source of considerable concern among fire service personnel. Almost 60% of the NASSS (2008) participants had attended an incident involving a member of their family, or a colleague within the service and worryingly, almost 10% had attended the suicide of a colleague. This finding is of particular importance in light of the significant negative impact of these kinds of incidents. Importantly, it is regarded as a natural reaction and behaviour when helpers experience a stress reaction as a result of helping or wanting to help a distressed person (Jonsson et al., 2003); this reaction is often

referred to as ‘compassion fatigue’ and illustrates the ‘cost’ of caring experienced by caring professionals such as emergency service personnel (Figley, 1995).

Ward et al. (2006), in a unique study which examined a number of categories of emergency service personnel (fire, ambulance, police, sea rescue, and defence), found that exposure to Critical Incidents was associated with: general psychopathology; PTSD symptomatology; and aggression between colleagues. Thus, Critical Incident exposure can be harmful, not only to the individual involved, but also to their colleagues. In one of the best known studies of the impact of accident and emergency work on mental health and well-being, it was found that mental health and well-being appear to be compromised by emergency service work (Alexander and Klein, 2001). The authors examined the prevalence of psychopathology amongst ambulance personnel in the UK and its relationship to exposure to Critical Incidents. Worryingly, they reported that approximately one third of those studied reported high levels of general psychopathology, burnout and post-traumatic symptoms. Similarly, the NASSS (2008) found that working in the ambulance service has adverse effects on mental health; 20% of experienced ambulance personnel had clinically significant levels of psychological distress and one third of experienced ambulance personnel were categorised as ‘cases’ on the General Health Questionnaire (GHQ-28) i.e. would benefit from formal mental health intervention).

The GHQ has been used by other authors in this area to examine psychological distress in emergency service personnel. For example, Gallagher and McGilloway (2009) found that the health of most ambulance personnel in their study had been affected by a Critical Incident whilst 41% of personnel studied were identified as ‘cases’ on the GHQ-12. Interestingly, some research in this area has also documented differences

within emergency service personnel groups. For example, Young and Cooper (1997) reported that ambulance personnel were found to be far more dissatisfied with their job than fire service personnel, although both occupational groups reported slightly higher levels of job stress than the normative population. Sources of job stress varied between the two occupations; whilst ambulance personnel reported greatest occupational stress from factors intrinsic to the job, career and achievement and the organisational structure and climate, fire personnel had most difficulties in relationships with others (Young & Cooper, 1997). Interestingly, in a study of a fire service where the staff also conducted ambulance duties, it was found that ambulance duties within the fire service had a higher level of trauma exposure due to relentless work pressures and stress, thereby leading to increased psychological distress (Herbert, 2013).

Emergency service personnel may also experience an increased risk of developing symptoms of post-traumatic stress as a result of incidents at work (Chamberlin & Green, 2010; Tehrani, 2004; Wagner & O'Neill, 2012). Despite this, it has been argued that research which examines the impact of trauma exposure on emergency personnel (specifically firefighters) has been somewhat ambiguous. Thus, while some studies suggest an increased risk of mental health problems, others report high resilience as a result of trauma exposure (Declercq et al., 2011; Meyer, Zimering, Daly, Knight, Kamholz & Gulliver, 2012). According to Meyer et al. (2012), this discrepancy in the literature may be due, at least in part, to considerable methodological differences across studies.

Sterud et al. (2006) in their systematic review, reported that PTSD caseness was greater than 20% in five of the seven included studies which reported this aspect of health in ambulance service personnel (Sterud et al., 2006). Notably however, PTSD caseness

here was measured using a number of different tools across studies. In another systematic review of physical and mental stress-related disorders in ambulance service personnel, Donnelly and Siebert (2009) also reported a rate of PTSD exceeding 20%, although the authors did not provide any information on how PTSD caseness was identified.

More recently, Berger et al. (2012) reviewed 28 studies involving a total of over 20,000 rescue workers; a rescue worker was defined here as any person who professionally or voluntarily conducts activities devoted to: the provision of out-of-hospital acute medical care; transportation to definitive care; and rescuing persons or animals from dangerous accidents, fires, bombings, floods, earthquakes, other disasters and life-threatening conditions. The authors found that the pooled prevalence of PTSD was 10% - much higher than in the general population. Interestingly, it was also found that PTSD prevalence was higher in ambulance personnel than either firefighters or police officers (Berger et al., 2012), and this is consistent with the findings above (Donnelly & Siebert, 2009; Sterud et al., 2006). However, the pooled prevalence of PTSD here was based on both professional and volunteer rescue workers. Arguably, the level of trauma exposure in volunteer workers is lower than that of professional rescue workers and therefore the study sample is somewhat heterogeneous, thereby increasing the possibility that the pooled prevalence rate would be greater if volunteer workers were excluded. Likewise, one third of a large Irish ambulance service sample reported significant symptoms of post-traumatic stress (NASSS, 2008). Conversely however, Meyer et al. (2012) reported quite a low rate (4.2%) of PTSD diagnosis in a fire service population, although importantly this relates to PTSD diagnosis rather than simply PTSD symptoms. Thus, the collective evidence point toward the potential detrimental impact of emergency service work on physical and mental health.

Interestingly, Ward et al. (2006) found that Critical Incident exposure and rates of general psychopathology were higher in South Africa than in the developed world. Other authors have also found differences in rates of PTSD symptomatology depending on geography. For example, Berger et al. (2012) found that rescue workers from Asia had a significantly higher prevalence of PTSD than those from Europe, although this was not as substantial as the prevalence within North America. In an earlier study, Berger et al. (2007) reported a PTSD rate of only 5.6% in ambulance personnel in Brazil.

While most emergency personnel experience only short-term stress reactions after exposure to Critical Incidents and trauma, others may take several months to recover whilst a small proportion may experience permanent impairment (Mitchell & Bray, 1990). Sometimes, a reaction to stress may occur days, weeks, months, or even years after the event (Mitchell & Bray, 1990). Delayed stress responses occur when reactions to Critical Incidents are delayed through, for example, the suppression of emotions, and it is often difficult to recognise delayed stress as the association with the original incident may not be clear (Mitchell & Bray, 1990). Interestingly, a systematic review of delayed-onset PTSD conducted by Andrews, Brewin, Philpott & Stewart (2007) reported that studies consistently demonstrate that delayed-onset PTSD in the absence of any prior symptoms was rare, whilst cases which represented exacerbations or reactivations of prior symptoms accounted for a significant proportion of PTSD cases in military and civilian populations. It is important to consider the impact of delayed stress responses in retired emergency personnel, as delayed stress is often more difficult to resolve than acute stress (Mitchell & Bray, 1990). Importantly, the diagnostic criteria for PTSD was revised in the latest edition of the Diagnostic and Statistical Manual of mental disorders to remove the requirement for fear, helplessness or horror to happen

immediately after the trauma (DSM-5; APA, 2013). This further highlights the significance of a delayed reaction to trauma exposure.

Whilst Jonsson et al. (2003) indicated that little is known about the variables associated with post-traumatic stress symptomatology in high risk occupational groups, some research has examined the factors associated with psychopathology amongst emergency service personnel. For example, in a study of Japanese firefighters conducted by Saijo, Ueno and Hashimoto (2008), the following factors were associated with depressive symptoms and/or job dissatisfaction: amount of workload; variance in workload; interpersonal conflict; social support from a supervisor; role conflict and ambiguity; and self esteem. Other factors which have been linked to traumatic stress in emergency personnel include longer job experience, age, and physical and psychological workload (Jonsson et al., 2003). The significance of workload and burnout are emphasised at other junctures in the literature; for example, burnout may be affected by PTSD-related acute stress, and general work-related chronic stress (Mitani et al., 2006). Saijo et al. (2008) also reported that insufficient nap time was associated with mental ill health. Similarly, Donnelly (2012) investigated work-related stress and post-traumatic stress in the emergency medical services (N=1633) and found that organisational and operational forms of chronic stress, Critical Incident Stress (the stress resulting from Critical Incidents), and alcohol use were all significant predictors of post-traumatic stress symptomatology (after controlling for demographic factors). This was particularly important in light of the high levels of drug and high-risk alcohol use (40%) that were seen amongst Emergency Medical Technicians (Donnelly & Siebert, 2009).

In relation to psychological distress more broadly, several factors have been found to be associated with burnout including: lower job satisfaction; longer time in ambulance

service; less recovery time between incidents; and more frequent exposure to incidents (Alexander & Klein, 2001). Alexander and Klein (2001) also found that burnout and GHQ 'caseness' (those who would benefit from formal mental health intervention) were more common in those who had experienced a particularly disturbing incident in the six months previous to the study. Notably, bullying has also been linked to psychopathology. For instance, in the NASSS (2008), those who had been bullied (i.e. 39% of the sample) were three times more likely to be categorised as 'cases' on the GHQ-28. The finding here that more than one third of an ambulance service population had been bullied at work is a source of some concern, particularly in light of the importance of social support (outlined further below).

Some studies have also looked at other personal traits and characteristics and their association with psychopathology in emergency service personnel. Individual factors can increase the likelihood of post-traumatic symptoms including pre-event and subsequent stressful life events, and demographic variables such as lower education (Eriksson et al., 2004). Sterud, Hem, Lau & Ekeberg (2011), found that neuroticism predicted emotional exhaustion, psychological distress, and musculoskeletal pain among ambulance service personnel. Interestingly, neuroticism has also been found to be a predictor of mental health symptomatology across a number of domains in fire service personnel (Wagner & O'Neill, 2012). Another factor found to mediate the relationship between trauma exposure and distress/post-trauma symptoms is attachment security. Halpern, Maunder, Schwartz and Gurevich (2012), for example, reported that fearful-avoidant insecure attachment in ambulance workers was associated with current symptoms of post-traumatic stress, depression, somatisation and burnout. This was, in part, explained by the association between this attachment style and maladaptive coping, reduced social support and slower recovery from social withdrawal and physical

arousal following trauma; however, this did not mediate the relationship between attachment insecurity and current symptomatology (Halpern et al., 2012).

Collegial relationships and social support have also been highlighted as helpful when managing stress and trauma, and preventing psychopathology. For example, Herbert (2013) reported a strong sense of teamwork amongst fire service personnel whereby support, camaraderie and effective team leadership were found to be important to the successful management of trauma. Important linkages have also been made between social support and both physical and mental health; for example, a lack of co-worker support has been found to predict psychological distress and musculoskeletal pain in ambulance service personnel (Sterud et al., 2011) whilst social support has also been found to mediate and moderate PTSD symptoms following trauma exposure (Donnelly & Siebert, 2009). In another study of fire service personnel (N=243), Mitani et al., (2006) found a relationship between burnout and both PTSD and job stressors and the impact of burnout was also reduced by the presence of social support. The authors argued for the urgent employment of anti-burnout coping strategies such as promoting social relationships. Notably, support at management level, as well as amongst colleagues, has also been emphasised as being of great importance; for example, a lack of support from those in leadership roles has been found to predict lower job satisfaction and emotional exhaustion (Sterud et al., 2011).

Research has commonly highlighted the presence of a macho attitude amongst emergency service personnel, and a stigmatisation of help seeking behaviour. For example, Hill and Brunsten (2009) found that, when fire service personnel are in a situation of extreme trauma and cannot use familiar coping strategies, they may engage in excessive avoidance; thus, the role of 'rescuer' can sometimes act as a barrier to

seeking formal support. The perceived stigma around mental health and the reporting of depression or other mental health problems has also been found in police officers (Feldman et al., 2011). This reluctance to disclose emotional problems may arise from a fear of re-assignment or change in duties by management (Feldman et al., 2011). These kinds of findings highlight a crucial need to protect against the effects of stress and trauma amongst emergency personnel by providing appropriate and destigmatising forms of support.

Two organisational risk factors have also been identified as important in the development of PTSD symptomatology - work strain and insufficient recovery time following a Critical Incident (Eriksson et al., 2004). Notably, routine work in police officers has been found to mediate the relationship between exposure to Critical Incidents and PTSD symptoms and between negative life events and PTSD symptoms (Maguen et al., 2009). Importantly, other aspects of the emergency service and the associated work environment, such as lack of appreciation and feelings of disappointment, anger and confusion, may also negatively impact staff (Mitchell, 2011). However, all stress reactions in emergency personnel can be significantly reduced or prevented if the correct steps are taken from the outset (Mitchell & Bray, 1990). Critical Incident Stress Management (CISM) is one example of an approach employed in many international emergency service organisations (including the services that are the focus of this study) to prevent and mitigate stress reactions. The core components of CISM include: pre-crisis preparation; demobilisation; defusing; Critical Incident Stress Debriefing; one-to-one crisis intervention/counselling; family crisis intervention; and follow-up and referral (Everly & Mitchell, 1997).

2.3.3 Resiliency and acclimatisation

Notably, resilience and acclimatisation to trauma exposure are often features of life in the emergency services. For example, Sterud, Hem, Ekeberg and Lau (2008) reported evidence that did not support the assumption that emergency service personnel, specifically ambulance personnel, have more anxiety and depression symptoms than the general working population, suggesting a potentially high level of resiliency in emergency service personnel. In addition, Herbert (2013) conducted a qualitative study of traumatic experiences and coping strategies amongst a small sample of Irish fire service personnel (N=6) and reported that the general consensus among participants was that most incidents encountered on a day-to-day basis do not affect staff. Participants agreed that increased exposure to trauma led to a better ability to manage and successfully overcome traumatic incidents (Herbert, 2013), thereby suggesting that there is an acclimatisation to trauma over time. Further research has suggested that this process of acclimatisation may be more successful in individuals who have high levels of optimism and feel a strong sense of accomplishment from their role (Gallagher and McGilloway, 2009).

Chamberlin and Green (2010) found that while older firefighters experienced more general distress, they did not experience more symptoms of post-traumatic stress. Also, Declercq et al. (2011) and Meyer et al. (2012) found no evidence that the frequency of exposure to Critical Incidents led to an increased likelihood of developing PTSD symptoms. This acclimatisation process, however, may vary from one individual to the next. For example, Alexander and Klein (2001) reported that 10 per cent of ambulance personnel felt that, although they coped well in the initial aftermath of a Critical Incident, it was more difficult for them to cope in the longer term. This suggests a need for more longitudinal studies in the field whilst also highlighting the importance of

studies conducted in the later years, once people have retired from the service (such as the study presented here). Overall, these findings suggest that only a minority of incidents result in distress and that there are generally high levels of resilience amongst emergency service personnel.

Other authors have studied trauma and the impact of Critical Incidents, specifically in those working within police services. For example, Yuan et al. (2011) argued that only a minority of police officers develop PTSD despite frequent exposure to potentially traumatic incidents; they found the following factors to be associated with lower PTSD symptoms: caucasian race; less previous trauma exposure; less Critical Incident exposure; greater self worth; greater social support; and better social adjustment. Interestingly, these reflect the factors associated with PTSD symptoms in ambulance and fire service populations. Dissociation has also been found to be positively associated with PTSD symptoms in police officers (Galatzer-Levy, Madan, Neylan, Henn-Hause & Marmar, 2011). Furthermore, Critical Incidents were reported to be positively associated with both PTSD symptoms and alcohol use, whilst coping was also negatively associated with PTSD symptoms and mediated the relationship between Critical Incidents and alcohol use (Ménard & Arter, 2013). Interestingly, a link between occupational stress and Critical Incident Stress and high risk alcohol use has also been found in the emergency medical services (Donnelly & Siebert, 2009). Additional work by Feldman, Grudzinskas, Gerhenson, Clayfield and Cody (2011) reported that suicide calls are amongst the highest anxiety and stress provoking incidents for police officers and that such calls lead to both personal and professional difficulties for police officers, as well as their departments, and the local community.

Overall, the available evidence indicates that exposure to Critical Incidents amongst emergency services personnel, is often associated with general psychopathology, PTSD symptoms, physical ill health and aggression between co-workers. However, emergency service personnel tend to have typically high levels of distress irrespective of the effect of Critical Incidents (Eriksson et al., 2004). Their generally high levels of resilience are an important buffer, though, given the normally large number of Critical Incidents to which they are exposed.

2.4 Summary

This chapter introduced the concept of occupational stress and examined the potential effects on employees and organisations. The impact of exposure to trauma in the general population was then discussed, as well as the role of resilience and post-traumatic growth in the face of trauma. The impact of trauma in emergency service personnel was explored thereafter in the context of a review of studies that have explored the impact on overall health and well-being of emergency service work and frequent exposure to trauma. Collectively, the findings from the national and international literature suggest high levels of occupational stress and trauma in this occupational group, although these appear to be influenced, to a greater or lesser extent, by factors such as resilience, hardiness, acclimatisation, age at time of exposure, and the nature of the incident.

CHAPTER THREE: LITERATURE REVIEW II

This second literature review chapter provides further background and context to the study in relation to the national and international literature and information around older people and ageing, retirement, and the potential long-term impact of stress and trauma. The chapter begins with a focus on currently employed emergency personnel and then goes on to describe and critically appraise studies of those who have retired from the emergency services, with a view to exploring the potential long-term impact of emergency service work and exposure to trauma over time.

3.1 Retirement and Older People

The number of those aged 65 and over in Ireland is estimated to double between 2016 and 2031 (Central Statistics Office, 2013). This pattern of population ageing is due to longer life expectancy and decreasing fertility (Kenny & Barrett, 2011). This has led to substantially longer periods of retirement for most; for example, between 1881 and 2001, the length of time in retirement increased by 13 years (Crafts, 2005). This was due, at least in part, to a lower age-specific labour force participation rate, with reduced mortality accounting for almost 10% of the 13 year increase (Crafts, 2005). Similarly, Hoyer and Roodin (2009) indicated that today's workforce will spend between 10% and 15% of their lives in retirement, whilst Siegrist et al. (2006) stated that persons over 60 will comprise almost one third of the population in several European countries in the coming decades. These kinds of changes have led to discussion and debate around raising the retirement age to enable individuals to work longer (Health and Retirement Study (HRS), 2007). Furthermore, retirement lifestyles are changing with an increasing number of older people interested in remaining busy with part-time work and other activities into old age (HRS, 2007). Thus, retirement as a life stage, has become

increasingly important as has the need to understand the predictors and moderators of well-being in retirement (Burr, Santo & Pushkar, 2011).

3.1.1 The concept of retirement

In order to understand the impact of retirement, it is important to first understand the concept of retirement. Atchley's (1983) theory of retirement, although it was developed in the 1980s, is still widely cited today and includes the following seven stages: remote; near; honeymoon; disenchantment; reorientation; stability; and termination. Not all people will go through all of these phases and the importance of each stage for any one person will vary depending on a number of subjective factors such as finances, pre-retirement expectations, and psychological preparedness (Atchley, 1983). In the 'remote' phase of retirement, people do nothing to prepare themselves for retirement and do not often think about retirement, whilst in the 'near' phase of retirement, workers sometimes partake in pre-retirement programmes and will begin to think more about retirement (Atchley, 1983). In the 'honeymoon' phase, people often feel euphoric as they feel they have the freedom to do many things they did not have time to do before (Atchley, 1983). Eventually, this phase gives way to a retirement routine followed by the 'disenchantment' phase which involves feelings of disappointment or depression (Atchley, 1983). A 'reorientation' phase of exploration, evaluation and decision making follows and subsequently, the stability phase occurs when a set of criteria for evaluating choices in retirement are established (Atchley, 1983). Interestingly, the stability phase may occur directly after the honeymoon phase for some people, but for most, the transition is slower and involves a progression through all phases (Atchley, 1983). The final 'termination' phase, involves a decreased importance placed on the retirement role and may also involve an increased dependency on others and a decline in physical and mental health (Atchley, 1983).

3.1.2 The transition to retirement

Retirement, whether a positive or negative experience, is a major life event for everyone. Hoyer & Roodin (2009) argued that only a small number of retirees report major difficulties with their transition to retirement. However, it is a unique transition involving changes in relationships, roles, income, daily routines, and health (Burr et al., 2011). Many believe that occupation defines a person's subjective identity and place in the world (Lazarus & Lazarus, 2006). Consequently, loss of this occupation can leave the individual with a sense of loss, boredom, and a feeling of uselessness (Lazarus & Lazarus, 2006), or a feeling that they have lost their reason for living (Westberg, 2011). Likewise, Brenner and Shelley (1998) stated that retirement, for many, is coupled with loss of status and role, income, friendship, and a meaningful existence, and they argued that the adjustment from a work-centred life can be very stressful. Work fulfils many purposes in life including: making money; occupying time; facilitating social activity; and fulfilling a 'calling' or desire for power or influence (Lazarus & Lazarus, 2006). For those who have been working to provide income for the running of the family home, a crisis may begin when retirement occurs, and this crisis is exacerbated when retirement is involuntary (Lazarus & Lazarus, 2006). Although the literature here provides important detail on the losses which can occur as a result of retirement, notably these may be seen in only a minority of cases, with most people adjusting to retirement relatively easily. It is, nonetheless, imperative to understand both the positive and negative impact of retirement. Notably, (Brenner & Shelley, 1998) have highlighted the importance of preparing for retirement in order to prevent minor losses from becoming significant problems for the retiree or their family. Equally, the potentially negative impact of involuntary retirement (as a result of ill health, disability, or an accident) must be recognised (Hoyer & Roodin, 2009).

The transition to retirement is often described as an interchange between changing environmental constraints and the personal strengths unique to each individual (Bye & Pushkar, 2009). It is frequently viewed as a developmental and psychosocial transformation and, arguably, this life stage provides an ideal lens for the study of differences in adults adapting to change (Bye & Pushkar, 2009). Retirement often involves an introduction to the realities of ageing with an increased recognition of the physical and psychological changes which occur over time and in later years (Burr et al., 2011). Notably, retirement may also be a form of grief; not all people look forward to retirement and many of these people leave their jobs with a heavy heart (Westberg, 2011). A ripple effect of retirement may also occur in the sense that a retirement can affect not only the individual who is retiring, but also their partner and family members. For example, a retiree may have anxieties about their autonomy and the need to cope with a new household situation, often on a restricted budget (Brenner & Shelley, 1998).

In addition, retirement can often have an impact upon the life of an individual before they have retired at all. For example, the intent to retire plays an important role in the retirement experience and the transition to retirement. Ekerdt, Kosloski and DeViney (2000) found that the less time that workers foresee themselves as remaining active in the workforce, the more they will think and talk about retirement and the more difficult they will find it to fulfil their occupational role. A survey conducted on health, ageing and retirement across 10 European countries found that a lower quality of work was strongly associated with an intent to retire early (Siegrist, Wahrendorf, von dem Knesebeck, Jorges & Borsch-Supan, 2006). Other important factors associated with intent to retire early, include poorer well-being (Siegrist et al., 2006) and an insufficient 'fit' between a continuation of the work and personal and life goals (Brougham & Walsh, 2007). Interestingly therefore, an intent to retire may have a significant impact

upon an individual and the quality of their work, with important links to well-being. It also appears that individual expectations can play an important role in successful retirement (Hoyer & Roodin, 2009). Arguably, therefore, retirement should be studied as a process that begins before a person leaves the workforce.

As with an adjustment to change for many life events, the way in which an individual deals with retirement depends largely upon their coping skills (Lazarus & Lazarus, 2006). Importantly, retirement is not a uniform transition and those who have an abundance of resources are less likely to experience negative changes in satisfaction as a result of retirement. For instance, Pinguart and Schindler (2007) demonstrated that satisfaction in retirement varies; thus, for some, satisfaction declines in retirement, but then continues in a stable pattern whilst for others, it may increase initially immediately following retirement but then decline steadily thereafter.

3.1.3 Retirement and health

Some have suggested that retirement leads to a better life and this must also be considered when discussing the impact of retirement (Lazarus & Lazarus, 2006). In the majority of cases, it has been suggested that health declines in older age, and retirement is a time during which individuals re-evaluate their social rank (Alfonsi, Conway & Pushkar, 2011). Westerlund et al. (2010), for example, reported that the cumulative prevalence of several illnesses increased with age (e.g. respiratory disease, diabetes, coronary heart disease and stroke), with this trend continuing in retirement. Retirement was also found to be associated with deterioration in both mental and physical fatigue, as well as a substantial increase in symptoms of depression (Westerlund et al., 2010). Likewise, Dave, Rashad and Spasojevic (2007) found that retirement leads to increased difficulties in mobility and daily activities, increased ill health, and a decline in mental

health as a result of lifestyle changes associated with retirement, such as a decrease in physical activity and social interactions.

It has been stated, however, that these negative health effects can be mitigated if the retiree: is married; has access to social support; continues to partake in physical activity in retirement; and continues to work on a part-time basis when retired (Dave et al., 2007). As with employed life therefore, the importance of social support is again evident. Interestingly, Palmore, Fillenbaum and George (1984) studied the consequences of retirement where pre-retirement characteristics were controlled for, and their results demonstrated that retirement caused few health differences. This underlines the importance of controlling for pre-retirement characteristics when investigating retirement and suggests that these characteristics are more strongly associated with poor health in retirement than the experience of retirement itself.

At the same time, however, Bound and Waidmann (2007) found no evidence of the negative health effects of retirement and indeed, they reported some evidence to suggest that there may be a positive effect, at least for men. Similarly, Neuman (2008) argued that retirement preserves the health of both men and women although this preservation may be more perceived than real. The findings of these, albeit smaller number of, studies argue against the presumption that retirement harms health (Neuman, 2008), although they did not take into account the impact of occupation on health in older age; this is particularly relevant in the case of emergency service personnel who have typically spent their entire careers in a high-adrenaline, physically challenging and often stressful environment.

Physical activity as an important factor in overall health and well-being. Bye and Pushkar (2009) argued that when a decline in activity occurs in retirement, this is often

accompanied by a decline in physical and psychological health. Therefore, the importance of physical activity in old age and retirement cannot be overstated (Bye & Pushkar, 2009). According to Slingerland et al. (2007), retirement can be an opportunity for increased physical activity and, by consequence, increased physical health. However, this study also found that physical activity decreases in relation to work-related transportation were not countered by an increase in sporting activity or a leisure time physical activity.

In another interesting study of activity levels in retirement, it was found that changes in activity levels predict changes in positive and negative affect across time (Pushkar et al., 2010). Higher positive affect was predicted by increased activity, ability, ease, and future intentions (Pushkar et al., 2010). Maintaining the same level of activity usually resulted in a maintained level of positive affect (Pushkar et al., 2010). According to the same authors, meaningful activities can provide psychological benefits, including a sense of control, happiness, and life satisfaction. Greater engagement in activities was found to predict emotional, cognitive and social competence and a larger social network, whilst overall activity levels were also linked to mortality, with those who had lower levels of activity, more likely to die at an early age (Pushkar et al., 2010). This is an important finding, particularly in light of the importance of social support, and in the context of the current study, evidence to suggest high mortality rates in emergency service retirees in other countries (e.g. Wagner et al., 2006). Hoyer and Roodin (2009) also reported a direct link between satisfaction in retirement and the number of activities in which the retired person participates; this has led to the development of the 'busy ethic' theory which proposes that the more similar retirement is to working life, the less adjustment is required, and the more successful retired life will be (Hoyer & Roodin, 2009).

Despite the benefits of engagement in activities during retirement, research has shown that only a small amount of retired individuals are likely to increase or change their activity patterns (Pushkar et al., 2010). In fact, when retirement occurs, there is generally a decrease in meaningful activity and an increase in levels of passive activities (e.g. watching television or reading) as it is often difficult to find sufficiently satisfying and important replacements for work-related activities (Bye & Pushkar, 2009). In one study which assessed the short-term effect of retirement on health behaviours and mental health, it was found that retired members of a health maintenance organisation were more likely to have lower stress levels and to take part in regular exercise more frequently when compared to non-retired members of the organisation (Midanik, Soghikian, Ransom, & Tekawa, 1995). No differences were found, though, between the two groups with regard to: mental health status; coping; depression; smoking; and alcohol consumption (Midanik et al., 1995). This further highlights the importance of changing negative behaviours in retirement, such as high levels of alcohol consumption or smoking and/or promoting healthy and positive behaviours during employment.

Research on retirement has repeatedly demonstrated the importance of other factors aside from health, such as finance, values, and family (Burr et al., 2011; Hoyer & Roodin, 2009). For example, in a study of retired older adults (N=341; Alfonsi et al., 2011), it was found that: those with lower pre-retirement salaries had lower levels of subjective social status in retirement; those with higher levels of education reported greater subjective social status; and more illness was associated with lower subjective social status. In another longitudinal study of retirement and experiences of retirement (N=433; Burr, 2009), it was found that gender, financial status, and health affect emotions, but that the impact of value orientations on well-being were far stronger. Unsurprisingly, a greater openness to change was found to enhance positive emotion

and protect against negative emotion in the same sample (Burr, 2009). Stronger self-transcendence (i.e. seeing yourself as an integral part of the universe) and conservation (i.e. security, tradition and conformity) values were linked to higher levels of positive emotions (Burr, 2009). By contrast, greater self-enhancement values were linked to higher levels of negative emotions (Burr, 2009). Arguably therefore, it would be beneficial for values such as openness to change to be fostered and promoted within the work environment in order to improve the transition to retirement and the overall QoL of retirees.

In a large-scale American study on retirement and health (N=20,000), the key findings were as follows: those with a higher socioeconomic status had better health; health decreased with age, although most participants were in good health; health had an important influence on ability to work; lifestyle choices influenced health and well-being; rates of depression rose with age; and those aged 55 to 64 were less healthy than their British counterparts (HRS, 2007). These findings are consistent with those outlined above, further emphasising the importance of health and finance in relation to QoL in retirement. Most (61%) retirees reported that they found retirement ‘very satisfying’ with only 7% unsatisfied (HRS, 2007). The structure and availability of pensions often had a strong influence on the decision to retire; eligibility for social security benefits begins at age 62 in the US and labour force participation declines significantly thereafter (HRS, 2007). This again emphasises the importance of financial factors, both before and after retirement. In addition, the nature of work changed with increasing age, with part-time work becoming more popular (HRS, 2007). Married participants were also more likely to be in the labour force than their unmarried counterparts whilst people were less likely to retire if their spouse was still working than if their spouse had already retired

(HRS, 2007). A substantial decrease in wages was found with increasing age (HRS, 2007).

When reasons for retirement were examined in the HRS, more than one third stated that spending more time with family and friends was an important reason for retirement, whilst a quarter stated that they wanted to do other things; poor health was also cited as an important factor in the decision to retire (HRS, 2007). The HRS (2007) found that the decision to retire was more strongly influenced by health than financial status. The study found a strong link between expected and actual age of retirement, thereby demonstrating that serious consideration had been given to retirement whilst still in employment. A large number of those aged 50-55 expected to be working after the age of 65 (HRS, 2007), reflecting the increasing age profile of the workforce. While unphased or 'sudden' retirement was the most common form of retirement, three out of four participants expressed a preference for phased retirement and a gradual reduction in working hours (HRS, 2007). Interestingly, and in line with other research in this area, volunteer work was found to be associated with good health (HRS, 2007). The HRS, therefore, highlighted important factors associated with well-being and QoL in retirement, and provided important information around the retirement experience in the US population.

3.1.4 The Irish context

While it is useful to look at retirement in an international context, it is also important to understand retirement in a national context as the current study was conducted in Ireland. Fahey and Russell (2001)'s study of retirement in Ireland showed considerable variation in retirement age with an average retirement age of 59 years; only 18% of the sample (n=817) had retired at age 65 (Fahey & Russell, 2001). This is an important finding in light of the usual mandatory age of retirement in Ireland of 65 years,

demonstrating that age is not necessarily the most accurate assessment of a desire or requirement to retire. Among those yet to retire, almost one third of the sample had not yet decided when they would retire or had no plan to retire (Fahey & Russell, 2001). The most common reason for retirement, accounting for 29% of early retirements, was illness or disability and the second most common reason (27%), was a financial incentive (Fahey & Russell, 2001). The demanding or stressful nature of the occupational role was another reason for retirement, which was identified by 13% of respondents while 8% had retired due to business closure or involuntary retirement (Fahey & Russell, 2001). The potential impact of a demanding or stressful occupational role identified here is important in the context of the current study given that emergency service occupations have been identified as physically challenging and emotionally demanding (as outlined in Chapter Two).

Attitudes towards retirement among retired participants were mostly positive; 70% reported that they enjoyed life more since retirement and 77% reported that they had more opportunity to do the activities they really wanted to do since retirement (Fahey & Russell, 2001). Despite this, 55% stated that they missed the social contact associated with work and employment (Fahey & Russell, 2001). Participants still in employment reported an anticipation of both positive and negative effects of retirement; most (68%) believed that retirement would provide an opportunity to engage in desirable activities, whilst over half (57%) anticipated that they would miss social contact with colleagues (Fahey & Russell, 2001). Therefore, attitudes to retirement were relatively similar among retirees and those who had yet to retire. One quarter of retirees stated that if their employer had been more flexible, they would have continued working for longer and there was a widespread preference among participants for gradual retirement or a 'wind down' from working life prior to retirement (Fahey & Russell, 2001). Such a 'wind

down' period could mitigate against the potential negative impact of retirement and a sudden life change.

It is important to also briefly examine the literature around older persons in Ireland more broadly to establish influential factors and determinants of QoL in this population. Hickey et al. (2010) assessed QoL and its determinants among a random sample of community-dwelling older people in Ireland and found that, in general, QoL was very high. Higher QoL was linked to higher social class, better health (self-rated), less functional impairments and lower levels of loneliness and depression (Hickey et al., 2010). Notably, a number of these factors associated with QoL overlap with those in the Irish study of retirement, and other studies outlined previously. Hickey et al. also found that participants who had more positive perceptions of, and beliefs about, ageing were more likely to have a higher QoL, thereby highlighting once again, the important influence of attitudes on positive affect. The following areas (in order of importance) were identified as being important to older people: relationship with family; health; relationship with others; religion/spirituality; and the health of someone close (Hickey et al., 2010).

The Irish Longitudinal Study on Ageing (TILDA) is the most comprehensive longitudinal study of adults and ageing in Ireland (Kenny & Barrett, 2011). It was reported that, in general, those aged 50 and over experienced a high QoL and made a significant contribution to their families and communities (Kenny & Barrett, 2011). The majority (85%) of older people reported that they enjoy the things they do, and 81% reported often looking forward to each day (Kenny & Barrett, 2011). More than 80% of participants demonstrated a positive attitude when they reported that they felt life is full of opportunities (Kenny & Barrett, 2011). Older people were more likely

than their younger counterparts to report better life satisfaction and this study showed that QoL peaks around 65-67 years, and declines rapidly after the age of 80 (McCrorry, Leahy & McGarrigle, 2014). An overall decline in QoL occurred for all age groups between wave 1 and 2 of the study (McCrorry et al., 2014). Most participants felt younger than their actual age and maintained a sense of confidence and purpose (McGee et al., 2011).

As in previous work, the TILDA study also identified a number of factors that influence QoL in older persons including: health; socio-economic status; financial security; education; and social integration (McGee et al., 2011). For example, those with higher levels of wealth experienced better QoL; QoL increased consistently with wealth, and those who rated their wealth as poor or fair had the lowest QoL (McGee et al., 2011). Interestingly, women were found to experience a somewhat better QoL than their male counterparts (McGee et al., 2011). It was also found that QoL was better for those living with a spouse, than for those living alone or living with others (McCrorry et al., 2014). Importantly, 44% rated their health as either 'excellent' or 'very good', and this increased between wave 1 and 2 of the study (Finucane, Feeney, Nolan & O'Regan, 2014). The proportion of older Irish adults with problematic alcohol use was 16%, with a marked decline in the prevalence of problematic alcohol use around retirement age (age 65), and with a significantly higher level of alcohol problems in men when compared to women (Funicane et al., 2014). These findings on QoL are of particular importance in the context of the current study. Interestingly, the finding that problematic alcohol use reduced with age is in contrast to the findings of Midanik et al. reported earlier. This difference may be explained, at least in part, by cross cultural differences.

3.2 Emergency Service Retirees

A question that remains largely unanswered, concerns the longer term residual impact of emergency services work on retired personnel including, in particular, those who previously worked in the ambulance and fire services. There is very little research on retired emergency services personnel internationally and no studies within the Republic of Ireland, thereby demonstrating a significant gap in the literature. The existing (relevant) studies on retired emergency personnel (including reference to retired police officers and military veterans, where relevant) are summarised below.

A number of studies of emergency service retirees have investigated early retirement. In a study of early retirements amongst ambulance personnel in the UK, the most common reasons were related to musculoskeletal, psychiatric or cardiovascular disorders (Pattani, Constantinovici & Williams, 2001). Rodgers (1998a) reported that the largest proportion of early retirements in the Northern Ireland ambulance service took place as a result of mental ill health, approximately two-thirds (67%) of which were related to alcohol problems. In contrast to Rodgers' findings, Ide (1998) found that physical ill health (i.e. musculoskeletal disorders) accounted for most of the retirements from the fire service, although none of the 17 deaths reported (five myocardial infarction, three cancer, two road traffic accidents, and two suicides) were linked to work-related causes. These contrast somewhat with the determinants of early retirement in general population studies which appear to relate more to financial rewards, increased wealth, ill health, poor quality of work, and having a partner still at work (Marmot & Stafford, 2010; Siegrist et al., 2006).

The health implications and long-term impact of emergency service work have been highlighted in the literature. For example, Rodgers (1998b) reported that ambulance

personnel had higher rates of early retirement than other groups (manual, nursing, and non-manual groups). This finding is of critical importance as research has shown that mortality rates are higher in emergency service personnel (firefighters) who retire early (Wagner et al., 2006). Rodgers (1998a, 1998b) also suggested that ambulance staff have high morbidity due to the physically demanding nature of their work and are, therefore, in need of preventative and health promotion activities, further emphasising the impact of emergency service work on health and well-being (as outlined in Chapter Two).

Mortality and retirement were studied in the fire service by Ide (1998) who reported a standardised mortality rate amongst 887 retired firefighters of 26. A large proportion of these retirements were related to ill-health, with the most common including: musculoskeletal (40%); ocular (12%); 'others' (12%); injuries (10%); heart disease (10%); and mental disorders (9%). It is important to note that more than 60% of these retirements had occurred after 20 or more years of service (Ide, 1998), thereby indicating the accumulation of physical health ailments over time. The author highlighted the harmful effects of ill health retirement such as premature loss of experienced staff and reduced contributions to the pension fund (Ide, 1998).

In a follow up study, the same author (Ide, 2000) investigated the results of routine medical examinations of full-time firefighters who had retired early as a result of ill health and who had retired after completing maximum service. A statistically significant difference was found between the ages of those retiring for two different reasons; the mean ages for those taking ill health retirement and those retiring after maximum service were 48 and 54 years respectively (Ide, 2000). As in the case of their routine medical examinations (i.e. which were assessed before retirement), the maximum service retirees were more likely to be non-smokers, have normal lung

function, abnormal chest xrays and near vision (Ide, 2000). The results of this study by Ide (2000) suggested that routine medical examinations are not an effective means of identifying those at risk of ill health retirement.

A small pool of research has also examined the long-term mental health implications of emergency service work. It has been reported that military veterans are at no greater risk in the longer term, of adverse mental, physical or behavioural health than general population controls (Woodhead et al., 2011) and that the majority have high levels of well-being after leaving the service (Iversen & Greenberg, 2009). Interestingly, despite the media focus on PTSD amongst veterans, the most common disorders in this population are depression, alcohol abuse and anxiety disorders, although these occur in the minority (Iversen & Greenberg, 2009). Levels of depression and PTSD among retired firefighters who had worked at 'ground zero' (9/11) were reported by Chiu et al. (2011A, 2011B). They found that 6% of retired firefighters were diagnosed with PTSD after the initial aftermath using the Diagnostic Interview Schedule (Chiu et al., 2011), but that between four to six years later, 23% and 22% of the retirees screened positive for elevated levels of depression and PTSD respectively, thereby indicating an increase in trauma symptomatology over time.

In a qualitative study of the transition of military personnel to civilian life, Brunger, Serrato and Ogden (2012) identified one of the primary themes as the loss that was experienced after life in the military. For example, all participants highlighted the loss of camaraderie and community spirit. For some, this included an overwhelming feeling of isolation whilst others experienced the loss of a unified bond. These findings are particularly relevant in the context of the current study due to similarity in change of status and identity between the current study population and ex-military personnel.

Black, McCabe and McConnell (2013) found a considerable level of psychopathology among retired police officers who were active during ‘the troubles’ in Northern Ireland. For example, 27% obtained clinically significant scores on the post-traumatic stress measure, half were found to have some form of depression, and 41% were identified as ‘cases’ on the GHQ (Black et al., 2013), demonstrating the long-term impact of trauma exposure in this population. In another American study, Brandl and Smith (2013) reported that retired police officers die significantly younger than other retired employees, and have significantly shorter retirements preceding death when compared to other employees. Again, this demonstrates the potentially negative impact on mortality and retirement of working in a ‘high risk’ occupation.

Finally, other research has explored the impact of ‘forced’ retirement among emergency service personnel. For instance, a study of fire service personnel, Antonellis (2007) reported that this occurs when the decision to retire is made by someone other than the retiree; the difference between this and a normal retirement lies in who makes the decision to terminate the working relationship. When fire service personnel are forced to retire, they are faced with some additional challenges due to lack of preparation (Antonellis, 2007). This supports Atchley’s (1983) argument that the ‘honeymoon’ stage of retirement can be less positive for those who are forced to retire or who retire under negative circumstances. Thus, an individual who is forced to retire may feel that they are no longer part of the service and may, over time, begin to feel less and less connected with the workforce as well as feeling a loss of identity (Antonellis, 2007). This, in turn, can lead to depression, alcoholism, gambling, or other addictive behaviours (Antonellis, 2007).

3.3 Summary

In summary, retirement is becoming an increasingly lengthy and important life stage due to the changing demographics throughout the world and attendant changes in lifestyle, health and well-being. The potential challenges of retirement for the general population, as well as emergency service personnel specifically were outlined, as well as a number of determinants of, and factors associated with QoL in retirement. A need for significantly more research on emergency service retirees is highlighted.

CHAPTER FOUR: METHODOLOGY

This chapter is divided into the following sections: (1) a description of the epistemological framework and the overall study design; (2) detailed methodological information for each stage of the study; and (3) a discussion of more general methodological issues relevant to the study.

4.1 Epistemological Framework

The current study employed a mixed methods approach located within a pragmatic framework. While traditionally, psychological research has utilised either quantitative or qualitative methods, in recent years a larger number of mixed method researchers are emerging and, as a result, this approach is becoming increasingly popular (Biesta, 2010; Bryman, 2008; Creswell, 2009; O’Cathain, Murphy & Nicholl, 2007; Onwuegbuzie & Leech, 2006). This has arisen, in part, due to the criticism that has been levelled at both quantitative and qualitative research methods when used on their own (Creswell, 2009). Mixed methods research focuses on collecting, analysing and mixing quantitative and qualitative data in a single study or series of studies (Creswell & Plano Clark, 2007). It capitalises on the respective strengths of quantitative and qualitative research and attempts to minimise the combined weaknesses (Bryman, 2008; and Creswell & Plano Clark, 2007), by advocating the use of whatever methodological tools are required to address the research questions (Teddlie & Tashakkori, 2009).

The complementary nature of quantitative and qualitative methods, as employed in mixed methods studies, is highly beneficial in gathering a wider range of evidence to expand and strengthen our understanding of a phenomenon (Lieber & Weisner, 2010) and provide the best chance of answering specific research questions (Johnson & Onwuegbuzie, 2004). This approach also enhances the scope and analytic power of a

study (Sandelowski, 2000). Mixed methods research is popular in the social and health sciences because the problems addressed by researchers in these fields are complex and often the use of either quantitative or qualitative research alone is insufficient in addressing this complexity (Creswell, 2009). However, mixed methods research is not without its problems; for example, some argue that, because the epistemological positions of quantitative and qualitative methods are so irreconcilably different, it is not possible to integrate the two research methods in a mixed methods design (Bryman, 2008; and Smith, 1983). However, the growing willingness of researchers to think of research methods in a way that is unencumbered by deep epistemological and philosophical underpinnings is allowing for a greater acceptance of mixed method designs (Bryman, 2008).

Mixed methodologists work primarily within the pragmatist paradigm (Johnson & Onwuegbuzie, 2004; Teddlie & Tashakkori, 2009). While most philosophical viewpoints promote either quantitative or qualitative methods solely and argue that these methods are incompatible (e.g. Guba, 1987; Sale et al., 2002), pragmatism proposes that a combination of these methods can be successful in addressing research questions and that these methods can successfully complement each other. Importantly, Bryman (2006, p118) comments that “*issues to do with the adequacy of particular methods for answering research questions are the crucial arbiter of which methodological approach should be adopted rather than a commitment to a paradigm and the philosophical doctrine on which it is supposedly based.*” Although it is argued that there are many variations within pragmatism as a philosophical system (Morgan, 2007), a number of influential and important characteristics of pragmatism are outlined in Box 4.1.

Box 4.1: Some general characteristics of pragmatism (adapted from Johnson & Onwuegbuzie, 2004, and Robson, 2011)

- Promotes action over philosophising and for this reason may be seen as an anti-philosophy.
- Aims to find a middle ground to the philosophical dualisms between dogmatism (those who lay down principles as incontrovertibly true) and scepticism (questioning attitude towards knowledge) through the rejection of traditional dualisms (e.g. rationalism vs empiricism) and a preference for more “commonsense” versions of philosophical dualisms; a pragmatic method.
- Recognises the importance of the social and psychological world as well as the natural or physical world and places great importance on the influence of the inner world of human experience.
- Knowledge is seen as being constructed as well as based on the reality of the world.
- Promotes pluralism and eclecticism whereby different theories and perspectives are useful, and observation, experience and experiments are all useful means of gaining an understanding of the social world.
- Promotes a practical empiricism as the means of determining what works, and promotes theory which informs effective practice.
- Believes that current truth and knowledge should be viewed as provisional and may change over time; fallibilism is endorsed.
- Endorses practical theory which informs effective practice.
- In general, rejects reductionism which reduces culture, thoughts and beliefs to simple neurobiological processes.

Pragmatism focuses on “what works” in terms of the research question under investigation, rejects the theory that quantitative or qualitative methods must be used in a stand-alone way, and posits that the researcher plays a significant role in interpreting the results (Teddlie & Tashakkori, 2009). While the qualitative and quantitative approaches use inductive and deductive reasoning respectively, the pragmatic approach uses abductive reasoning; that is, reasoning which moves back and forth between induction and deduction (Morgan, 2007).

4.1.1 Study design

A comparative, cross-sectional, sequential mixed methods study design was utilised in order to address the study objectives. The study comprised three separate but related stages (as outlined in Figure 4.1):

- 1) A series of one-to-one interviews with key informants from the ambulance and fire services
- 2) A questionnaire-based survey of retired ambulance and fire service personnel and a comparison group of retired non-emergency service personnel
- 3) A series of in-depth interviews with retired emergency service personnel

Data collection and analysis were conducted in a sequential manner. The methodology for each of these three stages is further discussed below.

4.2 Method: Stage One

Stage one of the research process involved semi-structured interviews with key informants from the ambulance and fire services to identify their attitudes and views on appropriate practices and procedures to support retired personnel.

4.2.1 Participants and settings

Overall, a total of 14 interviews were conducted with key informants of the ambulance service (n=8) and fire service (n=6). Participants were predominantly currently employed within their organisation and occupied a variety of roles within each organisation, from senior management level to staff representative. Participants were also selected, where relevant, to represent a mix of geographical backgrounds. They were recruited through personal contact with informants and senior personnel in each of the emergency organisations.

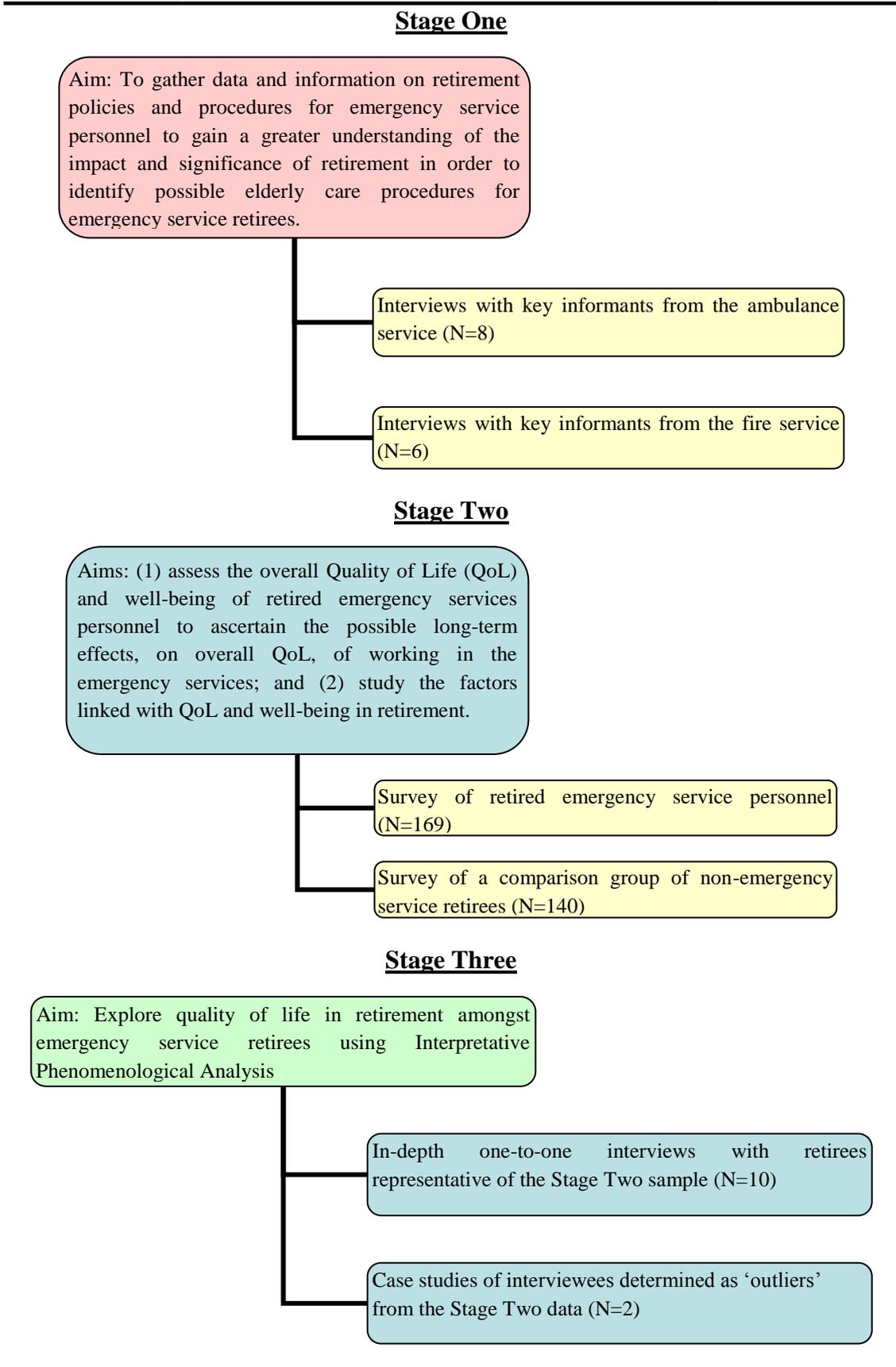


Figure 4.1: Overview of Key Stages of Study

4.2.1.1 Key informants – NAS

Two categories of key informants from the ambulance service were selected and invited to participate in the study: those in a senior or middle management position within the ambulance service (referred to in results as AM); and those in a senior position within ambulance representative associations (referred to in results as AR). These groupings were selected in order to present a balance of views. Participants were also selected to represent different geographical areas and were therefore distributed across the three regions of the service: North Leinster; South; and West.

4.2.1.2 Key informants – DFB

As with the ambulance service sample, two categories of fire service key informants were selected and invited to participate in the study: those in a senior or middle management position within the service (referred to in results as FM) and those in a senior position within a staff representative body (referred to in results as FR), one of whom was a retiree of the organisation with a high level of involvement in the retired members association. The primary aim of selecting these groups was to provide a balance of views on the topic. As the work of this service is concentrated within Dublin city and county, it was not necessary to sample additional participants for purposes of geographical spread.

4.2.2 Measures

Interviews were considered to be the most appropriate data collection technique as the objective of this stage of the research was largely exploratory (as is common in real world research (Gray, 2009)). The interview schedule was semi-structured to allow the researcher to ‘probe’ for more detailed responses and to clarify information provided by interviewees (Gray, 2009). This was devised, following a review of the literature as well as extensive consultation between the supervisor and researcher, in line with the central

research questions of the study. Topics included: time and experience in the emergency services; retirement procedures in the organisation; supports for retired personnel; interviewees' future retirement; contact with retired personnel; and possible improvements to the retirement transition.

At the time of interview, each participant was asked to complete a short demographic information sheet (see Appendix Five) which was used to elicit the following: age; job title; years in current position; total number of years working in the service; region or station; and county working in. It was necessary to include this demographic information sheet so that comparisons could be made based on demographic information at the analysis stage.

4.2.3 Procedure

Each participant was sent a research pack containing the following items: a cover letter inviting them to participate in the research (see Appendix One); an information sheet (see Appendix Two); a consent form (see Appendix Three); a reply slip to acknowledge intent to participate (see Appendix Four); a list of support contacts; and a stamped addressed envelope. In brief, the information sheet provided information on the following: the purpose of the study; the voluntary nature of participation and the option to withdraw at any stage of the study; the research process; how the results of the study will be used; and whom to contact if they had any questions. The consent form followed on from the information sheet and participants were required to confirm that they understood the information sheet, and that they read the support contact information enclosed in the research pack.

Participants were requested to complete the consent form and reply slip and to return these to the researcher, identifying their intent to participate in the research. Those who

returned this information were then contacted by telephone to organise a suitable time and place for interview. Interviews were conducted using a combination of face-to-face and telephone interviews whereby the interview method chosen was dependent upon the participant's geographical location and their own preferences. Where interviews were conducted face-to-face, these were undertaken, where possible, in the participant's place of work. Interviews were recorded (with consent), transcribed verbatim, edited for purposes of clarity only, and subjected to a standard thematic analysis in order to identify and explore key themes and issues relevant to the research questions.

4.2.4 Analysis

Preparation of the data for analysis involved transcribing the data and editing transcriptions for the purposes of clarity. In thematic analysis, the identification of themes can be theory led, in which themes have been decided beforehand; or inductively led, in which the themes emerge through the data (Hayes, 2000); these are also described as a priori and emergent themes respectively (Teddlie & Tashakkori, 2009). A combination of theory led and inductive thematic analysis was selected for use in this stage of analysis. The analysis involved carefully reading through each interview transcript and noting any items of interest or pieces of information which seemed to be relevant to the study or to the main areas of interest discussed in each interview. These pieces of data were then sorted and organised, in which similar topics were placed together representing themes. Each theme was then examined individually and a provisional name and definition was given to each theme. Each theme was then further explored by re-reading interview transcripts and identifying information relevant to the theme being explored. A definitive label was then assigned to each theme and a more concrete definition was also assigned. Relevant illustrative data were linked to

each theme. A small number of quotations were selected for illustrative purposes for each theme for use in reporting of findings.

4.3 Method: Stage Two

Stage Two of the study involved a multi-questionnaire postal survey of three participant groups, incorporated to allow for useful and meaningful comparisons across and within-groups.

4.3.1 Participants and settings

Participants in Stage Two of the study were from both emergency service and non-emergency service backgrounds. Opportunity sampling was used in this stage of the study whereby available members of the population were invited to complete the study (Hayes, 2000). The gender breakdown for participant subgroups is provided below in Table 4.1. As expected, each of the participant subgroups was predominantly male. The emergency services are male-dominated occupations and for this reason, it was crucial that the comparison group selected was also predominantly male. Further information is provided below.

Table 4.1: Gender Breakdown of Stage Two Participant Subgroups

Subgroup	Males - N(%)	Females - N(%)
Ambulance Service Retirees	50 (91)	5 (9)
Fire Service Retirees	114 (100)	0 (0)
Non-Emergency Service Retirees	134 (96)	5 (4)

4.3.1.1 Emergency service retirees

Both the ambulance and fire services were involved in this stage of the study. Access to emergency service retirees (N=565) was obtained with the assistance of senior personnel in these organisations. Due to strict data protection restrictions, it was not possible to directly access the list of contact details of retirees without first seeking the

consent of each individual retiree. Thus, for each emergency organisation, an initial letter was developed by the researcher in collaboration with senior personnel in the organisation. This letter was designed to inform retirees that a study of QoL in retirement was taking place with researchers seeking the release of contact details in order to contact them about their possible participation in the study. This letter included a reply slip which was to be completed and returned if the retiree consented to the release of their contact details to the researcher, and a stamped addressed envelope to return the reply slip to the emergency organisation. Once all reply slips had been returned to the organisation, contact details of those retirees whom had returned their consent form were released to the researcher. In this way, 38% (213/565) of the population agreed to be contacted. There was a 79% response rate (to the study questionnaire, n=169/213; 114 fire service and 55 ambulance service) amongst those emergency service retirees who agreed to have their contact details released to the research team and this constituted a 30% response rate overall (169/565).

4.3.1.2 Non-emergency service retirees

The comparison group employed in this study was a non-emergency service population, which was selected because of its similarity to emergency retirees in terms of its predominantly male profile and its relative accessibility. The group comprised staff who had retired from the Electricity Supply Board (ESB; public sector). This group have a strong support mechanism in place for retired personnel with a national retired staff association as well as district associations for retired personnel, many of which hold several social events and/or meetings per year. Notably, this support system was similar to that in place in the fire service sample who were included in this study, although no such supports were available for ambulance service personnel.

Several districts of the ESB retired members association were selected for inclusion in this study including: Ferbane; Dundalk; Lanesborough; Limerick; Ballina; and Waterford. Email contact was also made with a number of other district associations, but representatives of these district associations did not respond so, for this reason, were not included in the study. The districts utilised in this study were considered to be geographically representative of the national association. Access to this group (N=507) was secured with the assistance of district leaders who work as part of the retired members associations and personal contact was made with the leaders of these district associations. Due to data protection agreements signed by district leaders, contact details of association members could not be provided to the researcher. Therefore, questionnaire packs were sent on behalf of the researcher by each district leader. These were distributed through a combination of face-to-face interaction and postal distribution. Where postal distribution was used, questionnaire packs were sent to members' home address. There was a 28% response rate amongst this group (n=140/507).

4.3.2 Measures

A questionnaire method of data collection was selected for this stage of the study for a number of reasons including: the relatively low cost of this type of study design for larger populations; quick inflow of data; completion of the survey by participants at a time and place that are convenient to them; lack of interviewer bias; and retention of participant anonymity (Gray, 2009). In this stage of the research, several measures were administered to each subgroup in order to elicit information on: demographics; retirement status; occupational history; overall QoL (including physical and mental health); possible post-traumatic symptoms; and social support. Participants were asked to complete a Background Questionnaire as well as several brief, psychometrically

robust questionnaires which included: the WHOQOL-BREF; the CAGE; Duke UNC Functional Social Support Questionnaire; the Post-Traumatic Symptom Scale-Self Report Version; and the Life Experiences Survey.

4.3.2.1 Background Questionnaire

The Background Questionnaire was devised specifically for the purposes of this study and elicited information on the following: demographics; children and grandchildren; education; resiliency; retirement; previous occupation; retirement organisations and support; part-time and voluntary work; and income. As part of an investigation of the long-term impact of trauma, respondents were asked about the most difficult incident which they had dealt with personally as part of their professional or personal experience. The design of the questionnaire involved a number of key stages as outlined by Hayes (2000) including: devising the aims of the questionnaire; selecting question styles; designing the questions; and piloting and subsequently revising the questionnaire (See Section 4.5.1).

4.3.2.2 WHOQOL-BREF

The World Health Organisation (WHO), in collaboration with 15 centres worldwide, developed two instruments to measure QoL for use in a variety of cultural settings; the WHOQOL-100 and the WHOQOL-BREF (WHO, 1997). Both the WHOQOL-100 and the WHOQOL-BREF have been carefully tested to measure their test-retest reliability, content validity, and discriminate validity, with correlation between domain scores on these tools reaching 0.9 (WHO, 1997). The World Health Organisation Quality of Life BREF (WHOQOL-BREF) is an abridged version of the WHOQOL-100 (WHO, 1997) and is composed of 26 items which assess QoL and well-being. The WHOQOL-BREF is designed for use in large studies and clinical and audit work where it is not feasible to use the longer version of the WHOQOL (WHO, 1997), such as in the current study.

Given that QoL is a subjective experience, it is arguably best assessed by the individual (Skevington, 1999) and thus the WHOQOL-BREF is an effective means of assessing QoL. The WHOQOL was developed for use in a number of participant populations including: those with chronic illness; healthy individuals; caregivers; and those living in stressful situations (Skevington, 1999). This tool was particularly suitable for use in the current study as it is a generic measure of QoL and can be used widely across different pathologies and populations to allow comparisons between-groups (De Maeyer et al., 2010). It involves a subjective assessment designed for adults with a reading age of over 8 years, but can also be completed with interviewer assistance (Skevington, 1999). This tool comprises four domains relating to physical well-being, psychological well-being, social relationships and environmental functioning (De Maeyer et al., 2010).

There have been some criticisms of this tool; for example, some authors argue that there is a high degree of overlap between the WHOQOL-BREF and the Beck Depression Inventory with a high correlation between the physical and psychological QoL scores and depressive symptomatology (Aigner et al., 2006). The WHOQOL-BREF has been found to demonstrate suitable psychometric performance in a sample of older adults, demonstrating that it is a useful alternative in the assessment of QoL in this population (Chachamovich et al., 2007). The WHOQOL-OLD is an add-on module for the WHOQOL or WHOQOL-BREF designed specifically for use with older adults (Power et al., 2005; and Hickey et al., 2010). However, in the current study, based on a thorough examination of the WHOQOL-BREF and the literature around this tool, and because a number of other psychometric tools were used within the questionnaire, it was not considered necessary to use the WHOQOL-OLD. Furthermore, the retirement age of fire service personnel in the study was 55 years so it was deemed that a measure specifically for older people (age 60 years or more) may not be required.

In the WHOQOL-BREF, four domain scores can be obtained as well as two individual scores for perceptions of QoL and health. These domain scores indicate an individual's perception of QoL in each particular domain. Domain scores are scaled positively in that higher scores indicate better QoL. The domain score is calculated by finding the mean score of items within the domain. Mean scores are multiplied by four in order to make them comparable to scores used in the WHOQOL-100. Where an item is missing, the mean of other items in the domain is substituted. The domain score was not calculated where more than two items were missing from the domain, with the exception of domain three where the domain should only be calculated if 1 or less items are missing.

4.3.2.3 CAGE

Alcohol use and dependence was investigated because amongst older adults, alcohol use is common and is linked to a wide range of health and social problems (St John et al., 2010). Indeed, alcohol abuse amongst the older population has been labelled as “the invisible epidemic” (Sorocco & Ferrell, 2006). To date, there is limited research on alcohol use among older adults (St John et al., 2010).

The CAGE is a commonly used tool with four items used to measure alcohol dependence and is often used in the diagnosis of alcoholism (Ewing, 1984). It is quick to administer (Bowman & Gerber, 2006) and contains questions focused on Cutting down, Annoyance by criticism, Guilty feeling, and Eye openers (Ewing, 1984). This tool has high test-retest reliability across various populations and has ample correlations with similar screening tools (Dhalla & Kopec, 2007) and has been recommended for use with older adults (Sorocco & Ferrell, 2006).

4.3.2.4 Duke UNC Functional Social Support Questionnaire

Research has demonstrated important links between social support and physical health (Cornwell & Waite, 2009; Uchino, 2009), mortality (Holt-Lunstad, Smith & Layton, 2010), and depression (Grav, Hellzèn, Romild & Stordal, 2012). Lower levels of social support are associated with living alone, poorer subjective health, increased morbidity, mental health disorder, and poorer family functioning (Bellon Saameno, Delgado Sanchez, Luna del Castilla & Lardilli, 1996). Hence, social support was selected as a factor to be examined in Stage Two.

The Duke UNC Functional Social Support questionnaire examines the effects of social support on health, and is designed to measure the individual's perception of the amount and type of personal social support available to them (Broadhead, Gehlbach, DeGruy & Kaplan, 1988). This questionnaire is a self-report, multidimensional social support questionnaire which originally began as a 14-item tool, but following further testing and refinement, was abbreviated to eight items (Broadhead et al., 1988). Bellon Saameno et al. (1996) tested the reliability and validity of the new eight-item measure (N=656) and found that factor analysis yielded two factors - confidant support and affective support - each of which makes up one scale on the measure (Broadhead et al., 1988). Respondents are asked to rate how each of the eight statements relate to their situation. Items are scored on a five point scale ranging from 1 (much less than I would like) to 5 (as much as I would like), with higher scores reflecting higher perceived social support.

4.3.2.5 Post-Traumatic Symptom Scale Self-Report Version

The presence of symptoms of post-traumatic stress was an important factor in this study. Evidence has demonstrated that brief screening tools are a viable way of uncovering PTSD and PTSD symptomatology (Brewin et al., 2002). The Post-Traumatic Symptom Scale Self-Report version (PSS-SR) used in this study examines

the three clusters of PTSD (re-experiencing, arousal and avoidance) in a 17-item tool. This tool is used to diagnose and assess the severity of PTSD (Foa et al., 1993). The tool comes in two forms; an interview form and self-report form with both forms originally tested for consistency, reliability and validity with rape and non-sexual assault victims and found to have satisfactory internal consistency, high test-retest reliability, and good concurrent validity (Foa et al., 1993).

Participants are asked to rate how often they have experienced each symptom in the past month, thereby identifying current PTSD symptoms. Responses are as follows: 'not at all'; 'once per week or less'; '2-4 times a week'; and '5 or more times a week'. The identification of PTSD cases is then conducted using symptom counts which establishes the presence of the disorder by counting the number of clinically significant symptoms endorsed. Using this method, one or more re-experiencing symptoms, three or more avoidance symptoms and two or more arousal symptoms are clinically significant (i.e. demonstrate full PTSD symptomatology). When just two of these three conditions are fulfilled, this is categorised as 'partial PTSD' symptomatology. The identification of PTSD cases was not validated in any way.

4.3.2.6 Life Experiences Survey

Psychologists have attempted to measure social readjustment and the impact of life events and experiences for many years. According to Weiten et al. (2009), the development of the Life Experiences Survey (LES), which was used in this study, was based, in part, on Holmes and Rahe's (1967) Social Readjustment Rating Scale which was designed to measure change related stress experienced by people. The LES was developed by Sarason, Johnson and Siegel (1978) to address the limitations of previous life stress measures and to allow for discrete assessment of positive and negative life experiences combined with subjective ratings of the impact of the experience. This tool

has become a widely used measure of stress in contemporary research (Weiten et al., 2009). Despite some early criticism (often in relation to the reliability and validity of such tools), inventories of life events have remained popular (Dohrenwend, 2006). Negative life change scores have been found to correlate significantly with stress-related and self-rated depression measures (Sarason et al., 1978) and a number of studies have documented that life events are related to a variety of physical and psychological problems (Dohrenwend, 2006). Thus, the LES was considered to be a useful tool for use in this study.

The LES, in its original form, contains 57 self-report items (Sarason et al., 1978). The final 10 items are designed largely for use in academic environments (Sarason et al., 1978) so for the purposes of this study, these items were omitted. Respondents were asked to rate each life event experienced on a seven point scale ranging from -3 (extremely negative) to +3 (extremely positive). The LES allows for the computation of positive and negative change as well as total change scores (Weiten et al., 2009). It takes into account the individual differences in appraisal of stress and allows events to be rated with personally assigned weightings of the impact of the event (Weiten et al., 2009). However, it is urged that scores be interpreted with caution (Weiten et al., 2009) and some believe that summary scores are more reliable than scores on individual questions (Bailey et al., 1984). Test-retest correlations for the instrument are moderate (Sarason, Johnson, & Siegel, 1978) but little information is available on its psychometric properties.

4.3.3 Procedure

Participants were provided with the following materials in their questionnaire pack: a cover letter from the researcher (see Appendix Six); an information sheet (see Appendix Seven); a consent form (see Appendix Eight); the questionnaire booklet (see Appendix

Nine); support contact information; and a stamped addressed envelope in which to return the consent form and questionnaire. The cover letter was designed to introduce participants to the study and invite and encourage participation. This letter outlined the following information: the purpose of the study; the steps involved in participation and time commitment involved; assurance of confidentiality; and contact details of principal researcher. The information sheet provided participants with information on, for example: the purpose of the study; who the research was being conducted by; approval for the study; and information on participating in, and withdrawing from, the study. The consent form included in the questionnaire pack was designed to seek informed consent from participants to participate in the study. This consent form contained six statements which participants had to endorse before including their signature at the end of the consent form. The questionnaire pack also included a support contact information sheet which encouraged participants to seek support if they felt they had a problem with anything in the questionnaire or were finding it difficult to cope with anything in life. A number of support details and sources of interest for retired people were outlined within this support contact information sheet.

A number of steps - widely documented in the literature (e.g. Edwards et al., 2010; Sahlqvist et al., 2011) - were taken as part of Stage Two in order to improve survey response rates (see Box 4.2).

4.3.4 Analysis

The data from Stage Two questionnaires were entered onto IBM SPSS Statistics 22 and all data were screened and cleaned prior to analysis. Data were then analysed using parametric and non-parametric (where applicable) methods to examine differences between and within-groups, as well as significant relationships between variables.

Box 4.2: Steps taken to improve Stage Two response rate

- Inclusion of a cover letter which outlined the importance of the research and provided a guarantee of confidentiality. Where possible, cover letters were personalised by addressing the letter to the individual.
- Inclusion of a stamped addressed envelope in which to return the questionnaire and consent form.
- Where possible, reminder letters were sent to non-responders approximately two weeks after they had been sent the original questionnaire pack. This reminder letter again highlighted the importance of the study and encouraged a response.
- Use of clear instructions and an attractive layout within the questionnaire and other information included in the questionnaire pack.
- Use of short questionnaires, where possible.
- Use of mainly closed ended questions so participants were not deterred by “having to write a lot”.

4.4 Method: Stage Three

A number of qualitative interviews were conducted as part of Stage Three of the study. This involved a series of one-to-one interviews with a smaller sub-sample of emergency services participants. The data from these interviews supplemented the findings from Stages One and Two, and assessed the experiences of the emergency service retiree population in relation to their QoL in, and transition to, retirement.

4.4.1 Interpretative Phenomenological Analysis

Interpretative Phenomenological Analysis (IPA) was utilised in this stage of the research. Other methods of analysis such as grounded theory were explored but IPA was considered the most appropriate method for this study because it is particularly suitable for smaller number of participants whilst its phenomenological focus also allows a detailed exploration of participants’ personal lives (Smith, 2004). IPA is phenomenological in nature because it explores experience in its own terms (Smith et al., 2009). Indeed, this analytical technique has rapidly developed into a popular approach to qualitative inquiry (Smith et al., 2009). The cornerstones of IPA are

phenomenology, hermeneutics and idiography (Smith & Eatough, 2007; Smith et al., 2009); thus the approach is not new in the sense that it draws on concepts which have much longer histories (Smith et al., 2009).

IPA involves detailed examination of individual lived experience and how individuals interpret and make sense of that experience (Eatough & Smith, 2008) and it aims to investigate, in detail, the individual personal and lived experience (Smith & Eatough, 2007; Smith & Osborn, 2008). IPA is committed to the examination of how individuals make sense of their major life experiences and is often used to look in detail at how someone makes sense of a major transition in their life (Smith et al., 2009); and was thus useful here, in this stage of the research, to examine how participants make sense of the life experience of retirement from the emergency services and transitioning from working life to retirement. Although IPA is arguably still establishing itself, the number of studies conducted using IPA have increased since it was first used in the 1990s and IPA is now well established in health psychology, in particular (Eatough & Smith, 2008).

Interviews are by far the most common methods of collecting data in IPA (Eatough & Smith, 2008; Smith & Eatough, 2007; Smith & Osborn, 2008; Smith et al., 2009). A challenge in using this approach is achieving a balance between employing a semi-structured interview schedule and more spontaneous probing (Eatough & Smith, 2008). IPA interviews are characterised by the inductive nature of open questions and the participant-led nature of the interview (Eatough & Smith, 2008). IPA involves a two stage interpretation process in which the participant is trying to make sense of their world and the researcher is trying to explore and clarify how this sense making is taking place (Smith & Eatough, 2007; Smith & Osborn, 2008). The participant's mental and

emotional state is interpreted by the researcher based on what they say (Smith & Eatough, 2007). The researcher should be able to learn about important generic themes in the analysis as well as being informed about the world of each participant (Smith & Eatough, 2007).

4.4.2 Participants and settings

All emergency service retirees who completed Stage Two of the research were requested to complete a reply slip (to be returned to the researcher) if they wished to participate in a further stage of the research. Following receipt of completed reply slips from the retired emergency services sample (n=142/169), purposive sampling was used to select participants whom the researcher felt would significantly contribute further to the study and who were relevant to the research questions. Purposive sampling is recommended in IPA to find a homogenous and carefully defined sample for which the research questions will be significant and meaningful (Smith & Eatough, 2007; Smith & Osborn, 2008; Smith et al., 2009). Participants were selected to 'represent' a perspective, rather than the population (Smith et al., 2009). Stage Two findings were used in sample identification; participants were selected based on the data collected from the Stage Two questionnaire and were selected as they were representative of this sample (N=10). Further information on the criteria used for selection of the primary sample for Stage Three is provided below in Table 4.2. Two further participants with poor QoL ratings were also selected for use as case studies to attempt to identify factors that might contribute to reduced QoL in retirement. Further demographic information on each of these case study participants is provided in Chapter Eight.

Table 4.2: Criteria Used in Selection of Stage Three Participants

Category	Criteria Required for Selection
Gender	Male
Age	Those within one SD average age of Stage Two sample
Marital Status	Married
Children	At least one child
Part-time work	No current participation in part-time work
QoL and health	Very good or good/satisfied or very satisfied
Overall QoL	Scored above 60 for all WHOQOL-BREF items
PTSD symptomatology	Did not display symptoms of full PTSD symptomatology

Twelve participants were invited to participate in this stage of the research (6 from an ambulance service background, 6 from a fire service background, 5 homogenous (similar, and representative of Stage Two population) and one outlier in each case). Participants were initially contacted by phone to be invited to partake in this stage of the study and to arrange a suitable time for interview. A small sample size was used here because recommended sample sizes for IPA studies are six to ten (Smith & Eatough, 2007; Smith & Osborn, 2008; Smith, 2004; Smith et al., 2009). The aim of the use of small sample sizes in IPA studies is to reveal something of the experience of each individual participant (Smith et al., 2009).

4.4.3 Measures

Given that IPA was used in this stage of the research, it was necessary to devise an interview schedule which was extremely broad such that the subject matter was determined by participants. Interviews were interviewee led and the topics discussed and deemed to be of importance varied from one interviewee to the next.

4.4.4 Procedure

Interviews were conducted, insofar as possible, in participants' homes or other suitable (and quiet) locations. In IPA studies, interviews last on average, one hour, and are often intense and involved (Smith & Osborn, 2008). In the current study, interviews lasted approximately one hour on average (range from 46 min to 1 hour 45 min). Each interview began with the open ended question "could you tell me about your retirement" with follow up questions based on participants' responses. Where participants were not forthcoming about their experiences, more probing questions were used, as recommended by IPA researchers (Smith & Eatough, 2007). This permitted pre-determined questions to be used as a prompt, coupled with flexibility on the part of the researcher to adapt to the participant's account.

Great care was taken to ensure that questions asked were neutral and open, and did not lead the participant as this is particularly important in IPA (Smith & Osborn, 2008). Questions were designed to be free of double negatives, technical jargon, and leading content or assumptions. As recommended in IPA studies, the researcher used a set of questions as a guide to the interview schedule and interesting areas which arose were also probed; thus, the participant was an active agent in shaping the interview schedule by allowing them maximum opportunity to 'tell their story' (Smith & Eatough, 2007; Smith & Osborn, 2008). This method facilitated the collection of richer data as there was greater flexibility and rapport (Smith & Osborn, 2008). This was facilitated by a number of researcher characteristics including: open-mindedness; flexibility; patience; empathy; and the willingness to enter and respond to the participant's world (Smith et al., 2009). Respondents were also given sufficient time to answer questions and only one question was asked at a time with minimal probes.

4.4.5 Analysis

The interview data were analysed using IPA. Transcripts were re-read a number of times and were used to record analytic comments and emerging themes along with summative descriptions of the participants' account as well as interpretative statement, as recommended by Smith and Osborn (2008) and outlined by Smith, Joseph and Das Nair (2011). When emergent themes were established, connections between these themes were further studied (Smith & Osborn, 2008). When each transcription was analysed, a table of superordinate themes was developed according to how commonly they occurred within the data and the richness of the passages highlighting the themes (Smith & Osborn, 2008). In the write up of themes, each theme was explained and illustrated whilst verbatim extracts from the transcripts were entwined within the narrative argument to support each case (Smith & Osborn, 2008). Similarities and differences between individual cases were also explored (Smith et al., 2009).

4.5 Other Methodological Issues

This section addresses other general methodological issues relevant to the study including: a pilot study; ethical considerations; and reliability and validity issues.

4.5.1 Pilot study

A pilot study of informal interviews and questionnaire completion was conducted with a small sample of participant subgroups: retired ambulance service personnel (N=2); retired fire service personnel (N=2); and retired personnel from a non-emergency service background (N=2). The feedback received was overwhelmingly positive and any recommendations received (e.g. clarity of questions), were taken into consideration and the procedure and/or questionnaire were altered as appropriate. Changes made as a

result of the outcome of the pilot study included: increasing the text size in the questionnaire; and allowing more space for additional comments.

4.5.2 Ethical considerations

Ethical issues are a key component of real world research (Robson, 2011), and must be considered from an early stage in the research design process so that they can be anticipated and actively addressed as they occur (Creswell, 2009). Ethical research practice is a dynamic process which should be monitored throughout the course of data collection and analysis (Smith et al., 2009). The current study was conducted in accordance with the ethical Code of Conduct of the Psychological Society of Ireland (2011) and the British Psychological Society (2009). It received ethical approval from the Social Research Ethics Sub-Committee of Maynooth University in 2011.

All participants were informed, both verbally and in writing where possible, of the purpose and nature of the study. They were also assured that their data would be treated in confidence and that they were free to withdraw from the study and/or withdraw their data at any time without explanation. All participants provided written informed consent and this was an important component of the ethical procedure of the study. Consent forms, signed by participants, provide an acknowledgement that participants' rights will be protecting during data collection (Creswell, 2009) and dissemination. Through informed consent, participants demonstrate explicit understanding of the risks involved in participation in the study (Teddlie & Tashakkori, 2009). Another ethical procedure which arose as part of data collection involved securing the consent of individuals who occupied positions of authority in each relevant organisation to provide access to study participants. While this consent was not necessarily required for purposes of the study, this procedure ensured that the study was conducted to the highest ethical standard and that all stakeholders were appropriately informed about the research process.

An important aspect of ethical review is the level of risk a study poses to participants' psychological, physical or social well-being (Teddlie & Tashakkori, 2009). In the current study, there was a minimal level of risk posed to participants' well-being and this was managed through the procedures outlined below. It is important in any research study that participants are not put at risk and that respect is shown to vulnerable populations (Creswell, 2009). The study population in stages two and three of this study were identified as a vulnerable population and, therefore, due care and attention was paid to the needs and wishes of participants; for example, the language used was simplified and printed in a larger font (where applicable). In Stage Two of the research, assistance was offered in the form of telephone help and support. In addition, at all times the researcher acted in an empathic and caring manner towards participants. It is important for researchers to evaluate the extent to which talking about sensitive issues might constitute 'harm' for the participant group and it has been highlighted that where interviews may be upsetting, access to relevant support should be provided (Smith et al., 2009). As there was in depth exploration of some potentially sensitive issues in Stage Three, the researcher remained alert to any signs of distress and where these were evident, or perceived to be evident, participants were provided with supplementary support contact information.

Stage One and Stage Two data was also screened on an ongoing basis as it was collected, for any cases that might raise particular concerns (e.g. serious depression or other mental health issues). Where participants were identified as being in need of additional support, they were sent a letter from the researcher with additional information on support services available to them. This support information supplemented the support contact information sheet provided to all participants as part of the research process.

Finally, a number of measures were undertaken to protect the welfare of the researcher. The majority of Stage Three interviews, for example, took place in participants' homes and, thus, the researcher followed the procedures and guidelines outlined in the Department of Psychology's '*Guidance for Safe Working Practice in Psychological Research*' (See Appendix Ten). More specifically, the researcher contacted the supervisor directly before and after each interview. In addition, the researcher received regular supervision and support from her supervisor. Fortunately, no potentially harmful situations occurred and the researcher did not experience any undue stress from the interviewing process.

4.5.3 Reliability and validity

A number of procedures were employed in order to enhance the reliability and validity of the research. For example, in Stage One, this included: triangulating data from a number of sources; using a maximum variation purposive sampling method to obtain a diverse sample of participants; using audio-taped and verbatim transcription; providing a detailed description of participants and settings; and seeking respondent validation.

There was some variability in the reliability and validity of the questionnaires administered in Stage Two of the study. For example, while most measures utilised within this stage of the study have well-reported reliability and validity (as outlined above), limited information was available on the reliability and validity of the Life Experiences Survey. Where possible, tools selected for this stage of the study were high in reliability and validity. Two common threats to the validity of postal surveys are the extent to which respondents complete questionnaires accurately and the issue of non-response (Gray, 2009). A limitation of the study design here is that a number of errors were made by a large proportion of Stage Two participants when completing the Life Experiences Survey, despite minimal problems with this measure during the pilot period,

which compromised the validity of the findings. Examples of completion errors encountered included: selecting the perceived impact each life experience would have on them if it occurred; rating events which had occurred more than 12 months previously; and leaving the tool entirely blank. As a result, this tool was excluded from analysis of Stage Two findings. Efforts were made to discourage non-response by highlighting the importance of the study within questionnaire pack materials, and using reminder letters (where possible). The questionnaire findings were also supported and amplified checked by the Stage Three interviews, a common method used by researchers (Gray, 2009).

Due to time and resource limitations, it was not possible to conduct inter-rater comparison of themes generated during Stages One and Three of the research process. However, in order to address this, the researcher conducted an audit trail of coding in order to enhance transparency. The researcher also discussed the themes and any deviant cases, with her supervisor. Indeed, this latter strategy is more commonly utilised within qualitative studies whereas inter-rater comparison has rarely been used as a verification tool (Teddlie & Tashakkori, 2009). The reliability and validity of the qualitative analysis of Stages One and Three of the study were also checked by presenting verbatim extracts or illustrative quotes within the Results chapters. The presentations of findings at a series of conferences, at also helped in the assessment of the reliability and validity of the study findings (see Appendix 11), through endorsement of findings by conference attendees.

4.6 Conclusion

In summary, this chapter outlined the epistemological framework of the study, as well as the main methodological and ethical considerations relevant to the conduct of the three stages of this study. A detailed methodological overview of each of the three key stages

of the study was also provided. The results from each stage are presented in the chapters that follow.

CHAPTER FIVE: RESULTS STAGE ONE

This chapter presents results from Stage One of the study. This stage involved interviews with key informants from both the ambulance and fire services. The demographic profile of Stage One participants is outlined in the previous chapter. Five (anticipated) key themes were identified from the analysis, all of which are described below (see Table 5.1).

Table 5.1: Key themes and illustrative quotes

Theme	Illustrative quotation
Retirement age and related factors	<i>“You have to be fairly physically fit and you have to be young and it’s not doing anything physically for people in their late fifties and certainly not in their sixties if they’re trying to do that sort of work. To me, I think that it’s reducing their possibilities of having a long and healthy retirement. There should be a proper physical assessment of people at 60 if they want to stay on until 65.”</i>
Availability of supports for retirees	<i>“It would be nice to see an organisation where, even if it only organised a get together once a year for the retired staff rather than this just, isolation.”</i>
Improving the transition to retirement	<i>“I do honestly think that if we took a structured approach to retirement. So looking at people in their mid fifties onwards, if they’re going to retire at 65, and thinking about what jobs could they successfully and happily do beyond the 65, even if it was reduced hours. A small number of them might be suitable for office jobs or whatever, which would keep that expertise in house and avoid this sudden big bang at 65 where they’re just cast out.”</i>
Nature, and extent of, current contact with retirees	<i>“I think they do genuinely feel a wee bit isolated because there’s no formal process for them still having a contact with something that was a significant part of the lifestyle. They were defined by what they did and they don’t see themselves as having the same value, maybe, in society.”</i>
Facing your own retirement	<i>“Sometimes I think God, you know, wouldn’t it be great now, and times I think God, work on as long as you can, you know, because there is a social aspect to work as well. And how would I say it? I like work. Sometimes you give out about it, but there is a huge social aspect to it as well.”</i>

5.1 Retirement Age and Related Factors

The importance of retirement as a life stage and a key transition toward a significant life change emerged clearly from the findings with descriptions such as “*huge life change*” (AM02), and a “*cultural shock*” (AR01). It was indicated that retirement can cause distress if personnel are not sufficiently prepared and interviewees referred to financial issues, and especially within the context of current economic constraints; in other words, recessionary factors and financial cutbacks have led to a “*fear factor*” (FM02) for staff approaching retirement due to issues surrounding, for example, taxation of pension payments and other entitlements (e.g. lump sum payable on retirement), as well as incentives for early retirement of public sector employees. Two interviewees felt that staff were also thinking more about their retirement (short, medium and longer term) because of the current financial situation:

I think maybe the only reason that people are beginning to think more and more about retirement now is because of the current economic climate because its being pushed on them and they're thinking now 'what if I don't go now, will my lump sum be taxed?' (AM02)

Thus, financial issues were an important consideration for retirees and also for those considering retirement.

Notably, there is a difference in retirement age between the ambulance and fire service that were included in this study. Whilst ambulance personnel ordinarily retire at age 65, the fire service has a retirement age of 55 years (with the option to extend this by up to 10 years). Hence, retirement age is discussed separately for each emergency service.

Ambulance Service: Some minor discrepancies existed amongst participants in relation to their perceptions and views around the retirement age in their service; for example, some (n=3) outlined that the retirement age is 65 for all staff, two stated that personnel can retire any time after age 60, whilst one indicated that retirement age is 60 for

officers and 65 for operational staff. This demonstrated some disparity in knowledge and/or information available to personnel surrounding retirement age. The option to apply for a one year extension to retirement age was also mentioned by two interviewees. The physically demanding nature of frontline ambulance service work was highlighted in relation to difficulties staff may have remaining in this role until 65. Furthermore, one participant expressed a concern that many people have to retire before they reach 65 because of this, whilst another expressed a concern as to whether they will be in their current occupational role at retirement age as they did not feel that their current job is suitable for someone aged 65.

The difference between the retirement age in the ambulance service and other emergency services was raised by two participants, with a view that 65 is an unsuitable retirement age for operational (i.e. those working 'on the ground', and not in office based positions) staff (n=4);

I don't think it's a job for someone at 65 to be running out on an emergency ambulance, having to go up four flights of stairs. I don't think it's fair on the individual to be putting them under that pressure when you're seeing other services retiring earlier. (AR02)

Conversely, it was suggested by others (n=3) that staff should be allowed to contribute to the service after retirement age if they wish. However, it was felt that this contribution post-65 should be on a voluntary basis (i.e. not mandatory). For example, one interviewee outlined:

In the past 12 months I've had four people come to me asking me is there any hope at all that I could keep them on and nearly pleading to me personally, could I not keep them on or have a word with somebody to keep them on for so many hours a week, post 65, because they just did not want to stop. They really wanted to stay on for another bit. (AM02)

Fire Service: Again, there was some variation here around retirement age by rank/role. For instance, one interviewee indicated that retirement age differs by role; for example, firefighters must retire at 55 while district officers recruited after 2004 must work until 65. Two interviewees indicated that, generally, retirement is at 55 years of age after 30 years service whilst there were mixed views on the suitability of 55 as a retirement age:

...[55 is] generally a young age to be retiring so there's a long time between 55 and the normal retirement age and not everybody would be interested in going out to do a different job. (FR01)

The 55 age limit, I feel, is correct. I don't think it should be increased because of the shiftwork involved, it's a long shift; I know that as I get older it's getting harder to do the shift. I know I would be more tired after a busy night than I would have when I was a young guy. (FM04)

One interviewee reported that the retirement age of 55 was a major incentive in joining the job, whilst others highlighted that staff are more cognisant of retirement than those within other organisations because of the reduced retirement age. Ambulance work within the service was also mentioned as a more difficult, physically demanding aspect of the job despite the provision of supports such as stretcher lifts. The physical health implications of the job were also highlighted and included reference to back problems, which may have longer term effects into retirement; the need for a physical assessment for all personnel over age 60 was also indicated as something the service might wish to consider as a means of monitoring the physical health of older personnel:

You have to be fairly physically fit and you have to be young and it's not doing anything physically for people in their late fifties and certainly not in their sixties if they're trying to do that sort of work. To me, I think that it's reducing their possibilities of having a long retirement and healthy retirement. There should be a proper physical assessment of people at 60 if they want to stay on until 65. (FR02)

Notably however, the introduction of such an assessment may mitigate against employees if they are not deemed physically fit for the job, and may result in negative 'knock-on' effects within the organisation more generally.

5.2 The Availability of Supports for Retirees

As indicated earlier, retirement as a major life change was highlighted by a large proportion of interviewees but, importantly, those who were currently employed within their service (n=13) were not aware of any formal supports (e.g. counselling, advice service) provided by their organisation, thereby demonstrating a clear gap in this respect in both organisations. However, only two people indicated that such supports would be very beneficial, although difficulties in relation to obtaining financial support for such provision were also highlighted; the current financial climate was a recurring concern here.

Reassuringly however, a number of participants highlighted the benefits of hosting regular social gatherings for retirees. Notably, there was a Retired Members Association in place for the fire service in this study and, according to interviewees; this provides considerable support for retirees by hosting monthly meetings, as well as organising day trips, short trips around the country and longer holidays abroad. There were approximately 130 members of this association (of a total of approximately 350 retirees) at the time of the study:

“If you want to stay connected with the social club, they have a very active retirement section there and they go on holidays every year; they organise great trips and all that, and things to get together.” (FM02)

However, there was a general consensus amongst the fire service participants (n=4) that the active involvement of retirees in this organisation varies greatly. There was no similar type of retired members association in place for ambulance service retirees at the time of the study despite a number of attempts over the years, although it was noted that a retirement association was in place for members of the parent organisation (i.e. the Irish Health Service Executive) of the ambulance service. Significantly, interviewees felt that a retirement association specifically for ambulance personnel would be

beneficial: *“It would be nice to see an organisation where, even if it only organised a get together once a year for the retired staff rather than this just, isolation.”* (AM01)

However, a number of (ambulance) interviewees (n=3) referred to informal associations or supports in place for retirees, such as a golf association and annual mass. No such supports were mentioned by other ambulance interviewees, though, thereby demonstrating considerable variation in this respect across regions. Several participants also alluded to a need for more direct one-to-one support for retirees *“because it’s such a big change going from being on call, to 12 hour shifts, to nothing”* (AM02). These included suggestions to provide a counselling/guidance service and a retirement coaching service to help personnel decide the most appropriate time to retire:

My partner, it was a lot of turmoil on him whether to go or not to go. But it was a big, big decision and it caused him a lot of strife and maybe, if there had been supports there for him and I mean support even in a coaching type way, you know, for to help him make his decision around that. I’m sure it’s the same for a lot of people. Maybe if some kind of process where they could talk to somebody, you know, and I suppose in a coaching, not to make up their mind for them, just to help them. (AM04)

The difficulty that retirees experienced in retaining formal links with the ambulance service was also highlighted (n=3), and this was explained, in part, by the geographical spread of the service. Interestingly, it was also suggested here (n=2) that retirees may not wish to have any organisational contact post-retirement.

5.3 Improving the Transition to Retirement

The key theme which emerged in relation to improving the transition to retirement related to the implementation of a more structured approach which was discussed and/or suggested by a large number of interviewees, either directly or indirectly. This incorporated a number of central elements including: (a) the provision of information to personnel in pre-retirement years; (b) making available a ‘step-down’ facility for staff; and (c) using a sliding scale of hours in pre-retirement years.

The importance of the first of these was evident from the number of interviewees who emphasised the need to increase awareness and to provide information on retirement at an earlier stage through, for example, pre-retirement seminars which would take place between three and four years in advance of retirement. In this way, those in advance of retirement could think about retirement in a more constructive way. This is inextricably linked to the provision of a pre-retirement course, discussed further below. A more specific suggestion in this respect included an information leaflet developed specifically for retirees (and which would include Frequently Asked Questions as well as information on funeral entitlements, and a pension calculation formula). It was highlighted that difficulties often arise in calculating pension entitlements and a fixed formula would, therefore, be highly beneficial if included in an information package:

Personally I would like to see a booklet that's readily available that someone can pick up and all the answers to your questions, that you would envisage, that a pensioner would want to ask would be in this booklet. And then even the calculation; how they're actually doing the calculation, things like that. And then, after the fire brigade, what is available for you...At least a booklet or something that when you're retired to say 'this is what you're entitled to, God forbid, if you did die, your family can contact this number'. (FM02)

The importance of a structured approach to retirement planning was also mentioned as was the need to inform staff about the financial implications of retirement “*because a lot of people find that very difficult to actually get what it actually is they're entitled to; it is complicated*” (AM05).

Secondly, a step down facility or sliding scale, within a structured approach to retirement, was suggested by more than half of the sample (n=7) to facilitate a smoother progression to retirement:

How you can just switch off and walk away from all that at the end? (AR01)

I just find that it's too much of a shock for them to just have to stop like that. It can't be good for them, you know. I think they do need some kind of an ease down. There should be some kind of a step down. (AM02)

Suggestions for more senior personnel to change their work role closer to retirement rather than remaining at the coalface of frontline work, were also proposed (n=4). Some suggestions included moving to the Patient Transfer Service (an inter-facility transfer service designed to increase the number of frontline vehicles available for emergencies) or transferring to a teaching or office based position or other less stressful and physically demanding role. For example, one interviewee outlined:

I do honestly think that if we took a structured approach to retirement. So looking at people in their mid fifties onwards, if they're going to retire at 65, and thinking about what jobs could they successfully and happily do beyond the 65, even if it was reduced hours. A small number of them might be suitable for office jobs or whatever, which would keep that expertise in house and avoid this sudden big bang at 65 where they're just cast out. (AM01)

The notion of a sliding scale of hours was viewed positively by many participants. However, it is important that the possibility of implementing such a system is considered in light of the financial consequences (e.g. pension contributions).

It was suggested by a large proportion of participants (n=5) that management should implement a formal system of recognition for employees in order to improve the transition to retirement as this was highlighted as a current gap in the service: “*When your day comes up, you're just a number.*” (FM02). A lack of recognition from senior management was also highlighted (n=3). The importance of acknowledging retirees, both pre- and post-retirement was highlighted by several participants:

I think it would be nice to have some bit of acknowledgement there. (AM02)

With people retiring, that we could have maybe the person would go up and see the Chief Fire Officer when he is retiring so the Chief Fire Officer would actually shake their hand, a couple of words... For senior managers, we could make more of an effort that maybe they see the Chief on the day they're retiring. That style of thing could improve I think. There's always room for improvement. (FM01)

When I had made my decision to retire I thought that there would have been more support and that I would have got more acknowledgement. (FM04)

Such acknowledgement could be provided in the form of formal contact from management in the lead-up to retirement, or through the provision of further support for retirees. Half of the ambulance service interviewees also alluded to several recent ‘long service’ awards made to a number of retirees which were viewed very positively and it was felt it would be beneficial to make such awards on a regular basis.

It was suggested that a text messaging system for all staff, including retirees, be implemented. Importantly, a small number (n=2) of interviewees suggested that retirees need to be better informed about funeral entitlements for ex-service personnel. Although many retirees are involved with the Retired Members Association and remain “*in the loop*” (AR02) with what is happening within the service, those who are not involved with this association may benefit from the implementation of a text messaging system. Such a system could operate on an automated basis whereby regular updates on developments within the service, as well as information and support contact details for retirees, could be circulated via text message.

The need to promote appropriate health and well-being prior to retirement was also suggested by a number of interviewees as “*it’s too late when you’re 65 to try start being healthy*” (AM03). The importance of health for all personnel was also heavily emphasised (n=6) and it was felt that staff should be encouraged to engage in a healthy diet and lifestyle throughout their career; two interviewees specifically suggested the use of health screenings to ensure that staff are afforded the opportunity to retire in good health:

The operational side of it is a physical job. Plus the fact that we’re working in fire situations where you’ve huge heat and pressure on yourself to do the work. It’s not doing anything physically for people in their late fifties and certainly not in their sixties if they’re trying to do that sort of work. To me, I think that it’s reducing their possibilities of having a long and healthy retirement. There should be a proper physical assessment of people at 60 if they want to stay on until 65. (FR02)

This is clearly an important consideration and not least because it was indicated by half of the ambulance service interviewees that there are high mortality rates amongst ambulance retirees; one interviewee alluded specifically to a rapid deterioration in retirees' health during retirement whilst the large number of ill health retirements in the ambulance service in recent years, was also noted: *"They'd have retired and half of them have been sick relatively soon after retiring. Life expectancy within the paramedic is not as high as other areas within the social structure."* (AR02)

Formal pre-retirement preparation

All interviewees were aware of a pre-retirement course, although there was some variation in their knowledge of these provided. Courses provided information on: a positive approach to retirement; financial planning; personal taxation; social welfare entitlements; legal issues; and organisation pension scheme (personal correspondence with fire service, 2012). Three (ambulance) participants highlighted a lack of information in relation to pre-retirement courses across a number of areas. For example, whilst some (n=3) reported that the course is run specifically for emergency service personnel, others (n=6) stated it is a generic course run by the larger parent organisation(s) (i.e. the Irish Health Service Executive, and Dublin City Council). The utility of a pre-retirement course specifically for emergency personnel was identified: *"Definitely I think that a general pre-retirement course is not enough for somebody going from frontline ambulance duty; you're coming from a very high octane, very adrenaline driven job to nothing."*(AM02)

A number of interviewees (n=6), from both services, spoke positively about the pre-retirement course and/or outlined that they had received positive feedback about the course. There was a lack of clarity, though, in relation to the duration of the course as some indicated that it had been shortened in recent years. Some suggestions were made

in relation to the future development of courses. It was noted (n=3) that information on courses should be disseminated at an earlier stage in employees' careers rather than in the final weeks of employment including at induction or mid-way through their career. Importantly, it was also highlighted (n=3) that access to courses may prove difficult, and that sometimes staff are not 'released' to attend courses:

I know there is the retirement courses available, but the problem with us in the fire brigade is we can't get on the courses. Because if it's on when we're on duty, where other departments would be just let go on, we can't. [A colleague] wanted to go on one of the courses but he was actually working the night before. He couldn't be given the night off to actually go the next morning. (FM02)

5.4 Nature, and Extent of, Current Contact with Retirees

There was a general consensus amongst participants that retirement may bring isolation for some retirees who "*do genuinely feel a wee bit isolated because there's no formal process for them still having a contact with something that was a significant part of the lifestyle*" (AM01). Nonetheless, it is reassuring to note that all interviewees reported that they had, at least some, contact with other staff who had retired from the service, mainly on an informal basis. The close relationship which often exists between former work colleagues was highlighted by two participants and in particular, the relationship and camaraderie between crews. Thus, staff from both services often stay in contact with retirees as they have developed career-long friendships.

No formal systems were in place (e.g. regular communication from the organisation), though, for personnel to remain in contact with retirees. Such systems could potentially provide a buffer against any negative impact of retirement, and provide an additional source of social support for retirees, particularly for those living alone. Informal contact with retirees included: meeting with friends who have retired from the service (n=3); social functions (e.g. Christmas parties; n=3); contact through retired officers club (a social organisation for retired members of the fire service; n=2); social contact through

organised activities (e.g. bowls club; n=1); “*bumping into*” (FM03) retirees locally (n=1); and attending funerals of personnel (current or retired; n=1). The representative of the fire service Retired Members Association was the only individual who had regular ongoing contact with retirees. However, contact with retirees varied according to role; thus, one senior manager stated that he had had contact with personnel prior to retirement when providing retirement and financial advice.

Several interviewees (n=3) commented that retirees appear to be enjoying retirement, although it was reported that they may “*put on a bravado*” (AM02) when they meet former colleagues. Possible reasons why retirees may have limited contact with the organisation following retirement included: that idea that some retirees “*decide to cut all ties once they retire*” (FM03); the organisation not being proactive in maintaining contact with retirees; and a loss of “*momentum*” (AM05) in the motivation to maintain contact between retirees and the organisation over time.

5.5 Facing Your Own Retirement

Retirement “looms as a social fact for many workers in industrialized countries” (Kosloski, Ginsburg & Backman, 1984, p331) and for this reason, participants’ thoughts on their own retirement were also explored. Only those interviewees still working within the service (n=13) were asked about this. For most (7/13), financial security was highlighted as an important aspect when considering retirement and was clearly a significant source of anxiety for all personnel:

The last while I’ve been thinking on it financially, you know. I need to set myself up for retirement, which probably hasn’t occurred to me before or maybe that’s just because I’m at that age now, I’m in my late 40s. (AM04)

All five fire interviewees indicated that they had considered their own retirement to a greater or lesser extent, although one suggested that it is important not to focus on

retirement prior to retiring as often staff can “*retire before they retire*” (FR01) when this occurs. Likewise, one ambulance participant commented:

I just keep going and hope for the best. I've never actually looked that far ahead. I'm very poor actually on pension entitlements and all of that stuff. I've never checked any of that out because I have a few years to go yet, another 10 years maybe. (AM05)

Two others referred to what they considered to be very positive aspects of retirement in terms of having much more free time to pursue other things, feeling “*that my time will be my own*” and “*not having to go to a calendar and saying 'no, I'm rostered on duty, I can't do that.'*” (FM04). Notably, the need to follow a roster is a unique aspect of emergency services work so it is perhaps no surprise that participants alluded to the anticipated freedom, in retirement, from this aspect of their employment whilst also realising how much their work and family lives were constrained by shiftwork. Thus, it would appear that retirement is something which some participants, in many ways, were looking forward to, although by contrast, others expressed an attachment and positivity to their working life/occupational role which might make retirement a less positive experience for them. Thus, some mixed views in relation to retirement were in evidence: For instance, one participant stated: “*Half of you is looking forward to retirement and the other half isn't*” (AR01) whilst another said: “*I thought about it and then I didn't think about it because I enjoy what I do*” (AM06).

The potential impact of leaving a job which has been the centre of an employee's life for a significant period of time was also mentioned, as was the loss of social contact on retirement:

I'd be reluctant to leave the service. I have to say I will because I joined it as a fairly young man and it's been a significant part of life. (AM01)

Sometimes I think God, you know, wouldn't it be great now, and times I think God, work on as long as you can, you know, because there is a social aspect to work as well. And how would I say it? I like work. Sometimes you give out about it, but there is a huge social aspect to it as well. (AM04)

The importance of good health in retirement was further highlighted by interviewees. For example, one person outlined that they were looking forward to their retirement, but that this was contingent on good health: *“I’m beginning to realise how important your health is to you and I suppose that comes to us all.”* (AM02)

One fire service interviewee, aged 61, had stayed in the service beyond official retirement age (55 years), despite financial loss, mainly because he was not looking forward to retirement as he had few interests outside his job. This highlights the importance for those approaching retirement of cultivating other interests that perhaps they can pursue into retirement.

5.6 Results Summary

The first key theme here was retirement age and related factors. This encompassed a number of important issues including: the importance of retirement as a key transition; financial issues as a critical consideration; disparity in knowledge around retirement procedures; and the demanding nature of the job (with resultant health implications). The second theme was the availability of supports for retirees. It emerged that there were no formal supports available for retirees, although some informal supports were in place, albeit not consistently throughout the country (in the case of ambulance service). A need for support and guidance for retirees was highlighted. The third theme here was improving the transition to retirement. This involved the implementation of a structured approach to retirement incorporating the following key elements: improved information in pre-retirement years; step-down facility; and sliding scale of hours. Incorporated in this theme also was the importance of recognition for retirees, as well as the importance of promoting health and well-being throughout the career of emergency service personnel to ensure maximised QoL in retirement and also because of the current high

mortality rate among retirees referred to by interviewees. The fourth theme related to the nature and extent of current contact with retirees. It was emphasised that retirement may bring isolation for retirees and it emerged that all interviewees had at least some level of contact with retirees, primarily on an informal basis, something that was attributed to the close staff relationships. It was outlined that no formal system for retaining contact with retirees is in place. The fifth and final theme was ‘facing your own retirement’ which encompassed a range of concepts and concerns including: the importance of financial security; finance as a source of anxiety; looking forward to retirement; attachment to, and positivity for, the job; loss of social contact as a result of retirement; job as centre of life; importance of good health; and importance of cultivating interests prior to retirement.

CHAPTER SIX: RESULTS STAGE TWO

This chapter outlines the results from Stage Two of the study. This stage involved the distribution of questionnaires to retired ambulance service, fire service, and non-emergency service personnel. The results are presented in a number of different domains.

6.1 Participant Profile

A total of 565 emergency service retirees were contacted to request that their contact details be passed to the researcher, only 38% (213/565) of whom indicated their agreement. Reassuringly however, there was a 79% response rate ($n=169/213$; 114 fire service and 55 ambulance service) amongst those who took part in the survey. By contrast, only 28% of the comparison group returned completed questionnaires (140/507). The overall response rate across both groups was 43%, due mainly to the high level of non-response in the non-emergency comparison group. All but 3% of respondents in the total sample were male (97% male, 299/309) with a similar gender breakdown in both groups, and a mean overall age of approximately 68 years ($M=67.80$, $SD=7.59$, $Range=41$). The mean age for the emergency sample ($M=65.17$) was marginally lower than the non-emergency sample ($M=70.95$), but not statistically significantly so. Most respondents were married (85%, 261/308); the remainder were widowed (7.1%, 22/308), divorced/separated (5.5%, 17/308), single (1.3%, 4/308) or cohabiting (1.3%, 4/308). There was a similar profile with respect to marital status across groups.

Respondents had three children on average ($N=263$, $Min=0$, $Max=11$, $SD=1.79$), with only 6% (16/263) reporting that they had no children. Those who reported having children were asked how much time they spent with their children. Most (67%,

193/288) reported spending as much time as they would like with their children while more than one fifth (23%, 66/288) reporting spending *almost* as much time as they would like with their children and a smaller proportion (10%, 29/288) reported not spending as much time as they would like. The average number of grandchildren was four (N=267, Min=0, Max=19, SD=3.75), with a substantial proportion (27%, 72/267) having no grandchildren. Those who reported having grandchildren were asked how much time they spent with their grandchildren; over half (56%, 127/228) reported spending as much time as they would like with their grandchildren whilst 24% (54/228) reported spending almost as much time as they would like with their grandchildren; approximately one fifth (21%, 47/228) reported not spending as much time as they would like with their grandchildren.

There was some variation in the highest level of education achieved by respondents. The largest proportion (40%, 121/305) had achieved Group/Inter/Junior Certificate² as their highest level of education whilst almost one quarter (23%, 69/305) had completed primary level education only. Almost one fifth of respondents (respectively) had completed University/Regional College or equivalent (19%, 59/305) or had completed Leaving Certificate³ level education (18%, 56/305). The highest level of education achieved was comparable for the emergency and non-emergency samples. All but three respondents across both samples reported that they were receiving a regular income (pension or otherwise, 99%) and, reassuringly, almost three-quarters (72%, 218/303) believed that their income was sufficient to meet their needs. A greater proportion of non-emergency respondents (77%, 106/137) when compared to emergency retirees (67%, 112/166) felt their income was sufficient to meet their needs.

² Examinations mid-way through second level education

³ Examinations at end of second level education

6.2 Retirement Background

Emergency service participants were retired, on average, 7 years ($N=162$, $M=7.35$, $Min=0.14$, $Max=26.81$, $SD=6.19$), while non-emergency participants were retired for an average of 12 years ($N=135$, $M=11.92$, $Min=0.53$, $Max=30.98$, $SD=7.01$). The number of years in previous occupation (prior to retirement) ranged from 5 to 49 years ($N=304$, $M=34.0$, $SD=7.41$). The average number of years for the emergency sample was 31 ($N=166$, $Min=6.0$, $Max=48.0$, $SD=6.78$), whilst the average number of years for the non-emergency sample was marginally higher at 37 years ($N=138$, $Min=5.0$, $Max=49.0$, $SD=6.89$). The relationship between total QoL scores and total number of years in previous occupation in emergency retirees was investigated using Pearson product-moment correlation coefficient. Preliminary analyses were performed to ensure no violation of the assumptions of normality, linearity and homoscedasticity. There was a weak positive correlation between the two variables ($r= .19$, $N=164$, $p= .017$). Interestingly, there was also a weak positive correlation between total QoL score and total number of years in previous occupation for non-emergency retirees ($r= .19$, $N=135$, $p= .027$).

The relationship between total number of years in previous occupation for emergency retirees and total PTSD symptomatology was assessed using Pearson product-moment correlation coefficient. Again, preliminary analyses were performed to ensure no violation of the assumptions of normality, linearity and homoscedasticity. There was a weak negative correlation between the two variables ($r= -.150$, $N=166$, $p= .053$) with more years in the emergency services associated with fewer PTSD symptoms, although this difference did not reach statistical significance.

There were mixed views as to whether the move to retirement was sudden or phased/gradual with almost two-thirds of respondent (62%, 188/303) reporting the latter. A larger proportion of non-emergency retirees (71%, 99/139) when compared to their emergency service counterparts (54%, 89/164) stated that their move to retirement was phased/gradual. Importantly, QoL was significantly lower for those emergency retirees who reported a sudden ($M= 408.85$, $SD= 92.36$) versus more phased/gradual move ($M= 466.91$, $SD= 73.81$); $t(136)= -4.35$, $p<.001$, with a large difference in mean scores (mean difference= 58.05 , 95% CI: -84.44 to -31.66 , $\eta^2= 0.1$).

Notably, some respondents outlined more than one reason for retirement, highlighting the complex nature of the decision to retire (Table 6.1). A statistically significant difference in QoL scores for the categories of reason for retirement was found using a one-way between-groups ANOVA ($F(2, 20)= 5.5$, $p<.005$), however the effect size ($d=0.15$) was quite small. Post-hoc comparisons indicated that the mean QoL score for 'medical reasons' ($M= 397.67$, $SD= 89.81$) was significantly lower than a number of other categories including 'organisational changes' ($M=462.51$, $SD= 71.00$), 'reached retirement age' ($M= 468.29$, $SD= 67.30$), 'financial reasons' ($M= 477.64$, $SD= 62.93$), and 'right time to retire/wanted to retire' ($M=479.83$, $SD=76.22$).

The majority of the emergency sample reported completing shiftwork on a regular basis in their occupation (93%, 156/167) compared to approximately one fifth of the non-emergency sample (22%, 31/139). Satisfaction in their job ranged from low to high with 81% (136/167) of the emergency sample and 76% (106/139) of the non-emergency sample rating their job satisfaction as high. A significantly smaller proportion of both the emergency (17% 29/167) and non-emergency samples (22%, 31/139) rated their job satisfaction as moderate, whilst only 1% of each group provided a low rating. Hence, it

Table 6.1: Reasons for Retirement

Reason for Retirement	Emergency Retirees (N=165) N (% of sample)	Non-Emergency Retirees (N=139) N (% of sample)
Reached retirement age	81 (49)	32 (23)
Medical reasons	42 (26)	16 (12)
Financial reasons	10 (6)	28 (20)
Unhappy in job	9 (6)	9 (7)
Right time to retire/wanted to retire	4 (2)	18 (13)
Family or personal reasons	4 (2)	7 (5)
Organisational changes	2 (1)	22 (16)
Wanted change	1 (1)	1 (1)
Multiple factors (listed above)	10 (6)	5 (4)
Other reason not listed above	2 (1)	1 (1)

is reasonable to conclude that the majority of all participants experienced positive job satisfaction in their previous occupation.

Notably, at the time of the study, there was a national retirement association in place for the non-emergency sample studied here (with smaller retirement associations by district throughout the country), as well as for the fire service retirees; however, no such association exists for the ambulance service retirees. Interest and attendance at retirement associations and groups is presented in Figure 6.1.

There were some mixed views in relation to supports in place for retirees provided by organisations to which emergency sample respondents had belonged; while more than one third (37%, 56/152) reported that there are supports in place (no detail of supports provided), a large proportion of respondents (47%, 72/152) reported that no supports are available. A further 10 (7%) indicated that informal supports were organised by staff (e.g. annual Christmas parties or retired staff meetings), whilst 6% (9/152) stated that there was a Retired Members Association for their organisation but this was for fire service staff only.

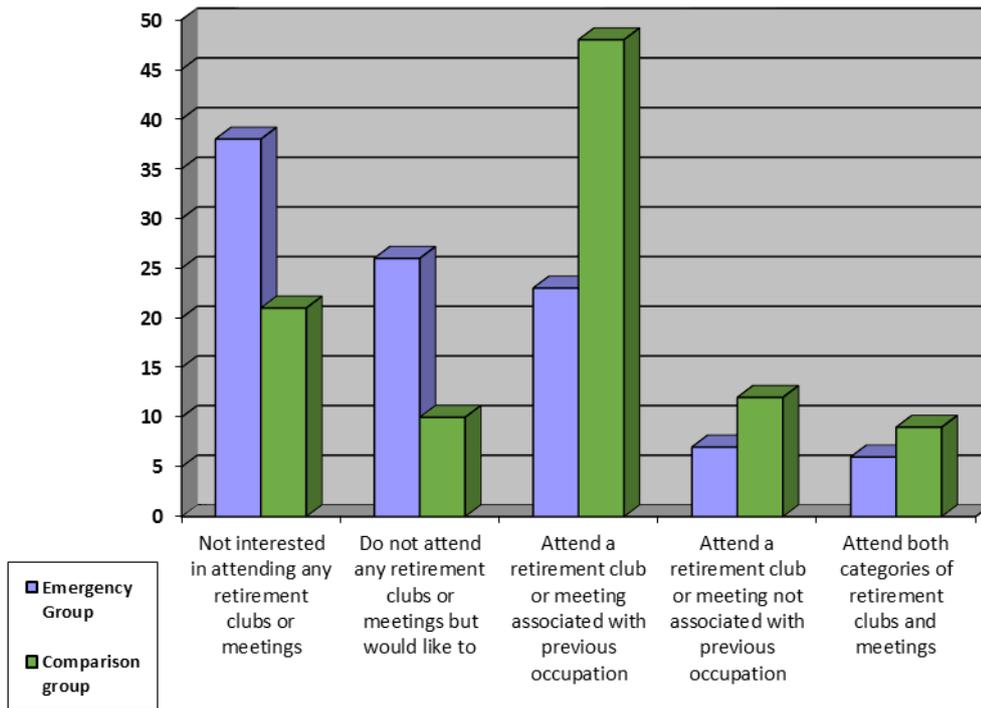


Figure 6.1: Interest in, and attendance at, retirement clubs and meetings (%)

In the non-emergency sample, there was also some variability in responses to this question, although two-thirds of respondents (84/128) reported that formal supports were in place (with five specifically mentioning the retired members association) whilst a further 5% (6/128) indicated that informal supports were available. Five additional respondents (4%) were unsure as to whether such supports were available.

6.3 Quality of Life

The findings pertaining to QoL during the previous four weeks for both the emergency and comparison groups are presented in Figure 6.2. Importantly, the mean QoL score in the emergency sample was significantly lower than the test norm score ($M=4.17$, $SD=0.86$ versus $M=4.3$, $SD=0.9$; $t(165)= -1.97$, $p= .05$). By contrast, the non-emergency sample reported ‘normal’ scores ($M=4.35$, $SD=0.72$) on this dimension.

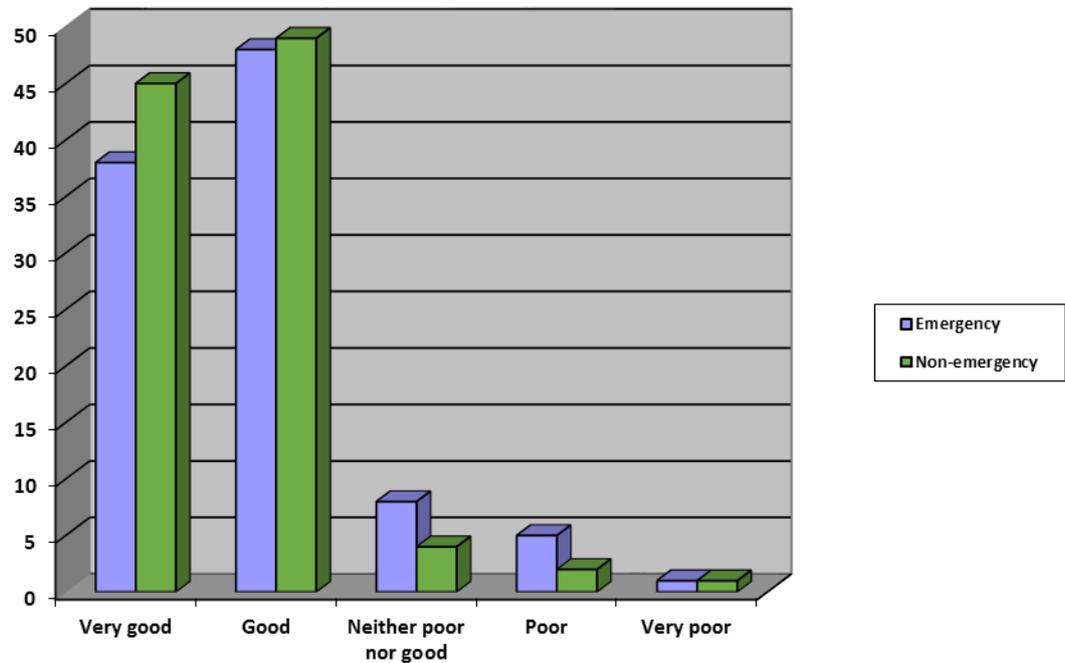


Figure 6.2: QoL for previous four weeks in emergency and comparison groups

With regard to satisfaction with health, the mean scores of the emergency (3.76 (SD=1.1) and norm groups (M=3.6, SD=0.9) were comparable ($p > .05$), although the comparison group obtained significantly higher (above-norm) scores on this dimension (M=4.04, SD=0.81); $t(138) = 6.34, p < .001$). The responses to satisfaction with health are presented in Figure 6.3.

As part of the psychological domain, participants were asked about negative feelings such as blue mood, despair, anxiety or depression (see Figure 6.4). An independent samples t-test demonstrated a significant difference in levels of negative feelings for emergency (M=1.99, SD= 0.75) and non-emergency retirees (M=1.77, SD= 0.67); $t(305) = 2.66, p = .008$. The magnitude of the difference in means (mean difference= 0.22, 95% CI: 0.06 to 0.38) was small (eta squared= .023). The scores for each QoL domain (indicating significant differences between-groups), are shown in Figure 6.5.

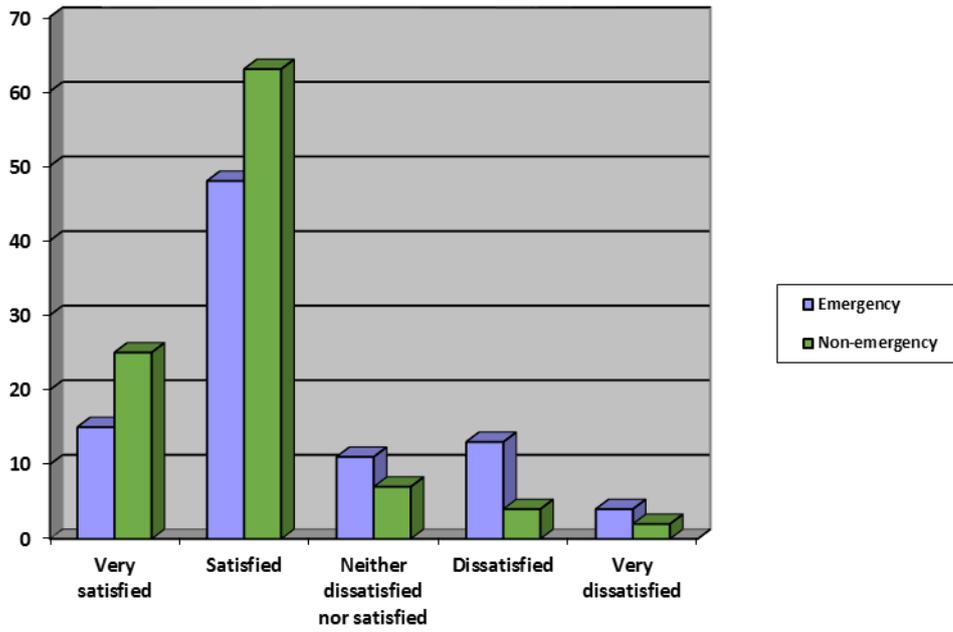


Figure 6.3: Satisfaction with health for previous four weeks in emergency and comparison groups

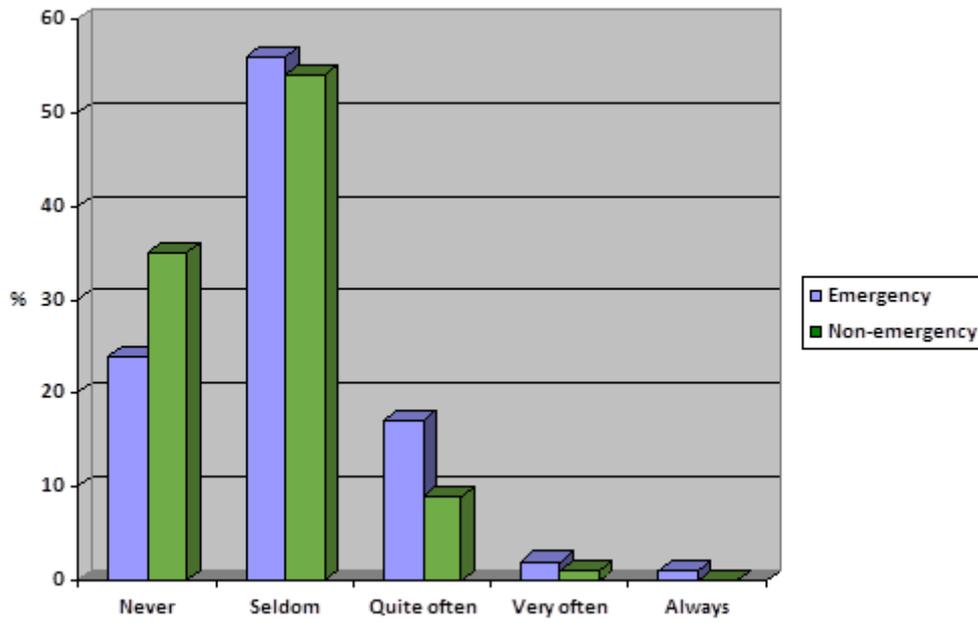


Figure 6.4: Experience of negative feelings

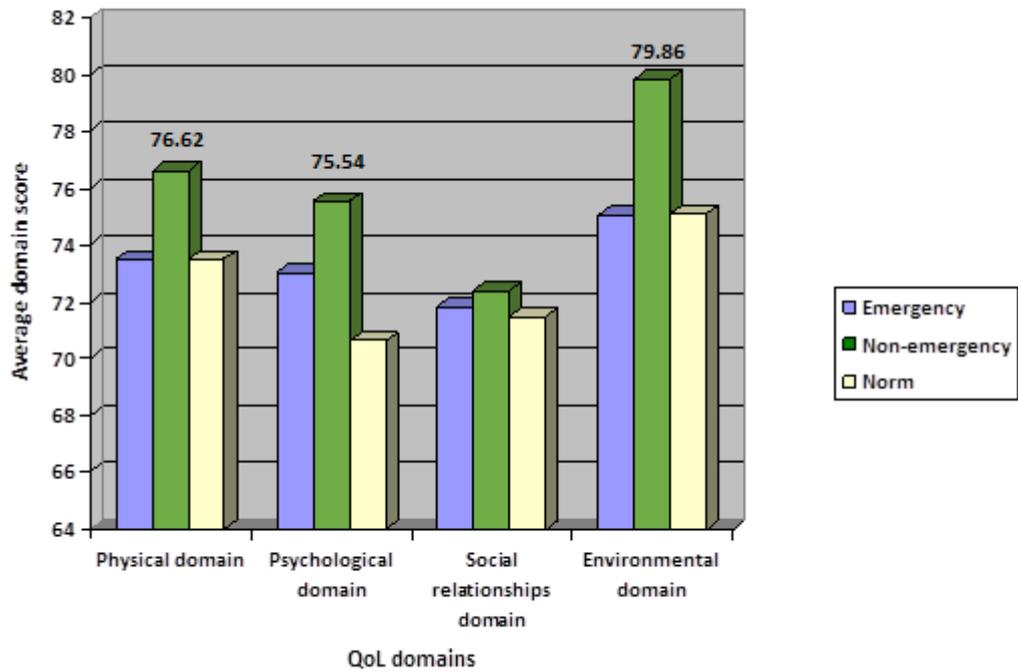


Figure 6.5: QoL Domain Scores: comparisons with norm group (norm data from Hawthorne, Herrman & Murphy, 2006), with significant differences from norm scores indicated using data values*

*Higher values indicate higher QoL scores

There was a significant difference in total QoL scores for non-emergency ($M=464.0$, $SD=68.11$) versus emergency ($M=441.52$, $SD=87.95$) participants ($t(300)= -2.51$, $p=0.013$, $\eta^2= 0.02$). The relationship between age and total QoL score was investigated using Pearson product-moment correlation coefficient and there was a weak positive correlation between age and total QoL score ($r= .113$, $N= 299$, $p= .051$). Regression analysis demonstrated that total PSS-SR scores predicted 16.56% of the variance in total QoL score ($\beta= -.421$, $p<.0005$). QoL scores differed significantly based on level of resiliency according to a one-way between-groups (Group 1: ‘very resilient’, Group 2: ‘somewhat resilient’ and Group 3: ‘not at all resilient’) ANOVA; $F(2,297)= 18.56$, $p<.0005$, with higher QoL associated with a higher level of resiliency, although the effect size ($d=.01$) was small.

6.4 Emergency Services Group: Experience of Traumatic Events

When asked to recount the incident which they had found most difficult to deal with personally⁴, most emergency respondents outlined incidents related to their professional life (60%, 102/169). A further 17% (29/169) recounted an incident pertaining to their personal lives while 4% (7/169) outlined numerous incidents related to both their personal and professional lives. Incidents related to personal life (n=29) included: death of a loved one (n=12); personal illness or injury (n=8); marital breakdown or family problems (n=3); and illness or injury of a loved one (n=2). A further four respondents indicated that the death of a loved one was one of several difficult experiences which they had experienced and one respondent highlighted that marital breakdown was also one of a number of difficult incidents that they had encountered.

Traumatic incidents had taken place, on average, 19 years previously (N=112, M= 18.60, Min= 0.75, Max= 46, SD=12.12). Interestingly, one in 10 (17/169) noted that there was no incident which they found particularly difficult to deal with in either their professional or personal life. Reasons for this included: acknowledging dealing with numerous difficult incidents but having no problem in this area (n=6); reporting that they never had a situation which was difficult to deal with (n=4); not recalling any particularly difficult incident (n=2); having no problem in dealing with difficult incidents as it was part of the job (n=2); or stating that there was “too many to worry about” (n=1). Interestingly, all but one of those who felt unaffected by trauma rated themselves as ‘very resilient’ (94%, 16/17). A selection of comments from those who felt that they had not been affected by trauma is provided below in Box 6.1.

⁴ 14 respondents (8%, 14/169) did not respond to this question; however eight of these individuals did complete the PSS-SR which would indicate they have experienced a difficult incident

Box 6.1: Selection of Comments from Respondents Unaffected by Trauma

“Had a few bad experiences during my time as a firefighter but I don’t feel I have had long-term effects from same. From time to time, will remember the event, [area] bombings and large fire in [area] in 1972, but don’t relive the events.” (very resilient)

“I have been at a lot of bad incidents in my time but I have never been affected by them and I never dwelt on any of them thank God.” (very resilient)

“Dealing with traumatic incidents were part of my job; what I was trained for. Many years of experience handling incidents made me immune.” (somewhat resilient)

“Trauma was an everyday occurrence in the fire brigade- you just deal with it.” (very resilient)

“Too many to worry about.” (very resilient)

“There are many, many issues I have had to deal with, and did deal with them.” (very resilient)

A large proportion of respondents reported that the single most difficult incident for them was related to their professional experience. While most of these incidents were in relation to Critical Incidents specifically, many others were not. A number of respondents here (n=15) reported an event or issue which was related to interpersonal or industrial difficulties including four who alluded to the challenge of a work-related injury. A further two respondents outlined bullying as the most difficult incident with which they had to deal, one of which lead to the participant’s decision to retire which they had later regretted.

Importantly, a significant proportion of respondents (n=12) referred to a major fire which had occurred 31 years previously, as the most difficult incident with which they had to deal⁵. For example, one respondent stated that they *“found it very hard after the initial fire to deal with such a high level of death at such a young age”* and that it *“left mental scars for months.”* A number of difficult incidents described here were characterised by recurring themes involving: children (n=23); particularly unusual or

⁵Three of these also outlined one or more other difficult incidents

horrific incidents (n=8); incidents with particular significance to respondent (e.g. known victim (n=7), including two respondents who responded to an incident involving a family member); incidents involving young people (including suicide, n=4); bombings (n=3); and incidents where the respondent felt helpless (n=2). Some participants had experienced incidents involving more than one of the above (see Box 6.2). Incidents involving children or young people, those which were particularly unusual or horrific, and bombings, were themes which also arose in the descriptions of those who had experienced multiple incidents.

Box 6.2: Traumatic Incidents: selection of illustrative quotes

Incidents involving children

“Double murder by burning. Mother and baby badly burnt. As I rescued the baby, the baby exploded in my arms.”

“A cot death. I became quite insular and my wife said my personality had changed...The incident is still very clearly embedded in my mind. I was young at my job and was devastated at the loss of such a young life.”

“House fire. Having to put 3 small children into one body bag as we had not enough to use.”

“A child’s death on the road. I have attended many traumatic situations on the road but a child’s death particularly this one, still haunts my memory and everyday thoughts. I can’t get her out of my mind.”

Unusual or horrific incidents

“I watched a man fall to his death from four storey window. I decided it was time for me to retire after this.”

“Motor cyclist accident. Two separate motor cyclists travelling together. Car collided with first bike which impacted on second bike. Injuries included decapitation. Multiple body parts at scene had to remain at scene for a number of hours.”

Incidents with particular significance

“Taking a baby to hospital who had died in a fire...What made this worse was that she was the same age as my son and was wearing the same baby-grow clothes.”

“I had to bring a colleague of mine whom I had spoke to about two hours previous in the ambulance dead after he had been in a crash. I never forget it and when I passed the spot of the crash it would come back to me.”

“A death in my family. My sister and me were very close. I really missed her when she died. It was an ambulance call and I was on duty.”

6.5 Comparison Group: Experience of Trauma

More than half of the non-emergency respondents (in contrast to the above) reported difficult incidents related to their personal life, such as death of a loved one (54%, 75/140). A further 12% (17/140) recounted an incident related to their professional life⁶ (Table 6.2). As with the emergency retiree group, these incidents had taken place, on average, 19 years previously (N=87, M= 19.41, Min= 0.25, Max= 70, SD=15.52). Interestingly, one third of this sample (46/140) noted no specific incident which they found particularly difficult to deal with in either their professional or personal life.

Table 6.2: Categories of Difficult Incidents Experienced by Comparison Group

Personal Incidents¹	N
Death of a loved one	26
Illness of injury of a loved one	11
Personal illness or injury	9
Family problem	4
Alcoholism (self or spouse)	3
Professional Incidents²	N
Near miss accident	4
Difficulties with management	3
Interpersonal difficulties	3
Being passed over for promotion	2

¹The top five categories are shown here with other categories including: marital breakdown (n=1); sexual abuse as a child (n=1); house burglary (n=1); finance related (n=1); and other personal issues not categorised by the above e.g. 'problems with inheritance' (n=14).

²The top four categories are shown here with other categories including: injury at work (n=1); fatal accident at work (n=1); relocated for work (n=1); death of a colleague (n=1); dismissing a staff member (n=1); and an incident where a staff member was involved in a road accident where a child died (n=1).

6.6 Potential Impact of Trauma

A significant difference in levels of PTSD symptomatology (full or partial) across groups was evident (χ^2 (1, N=309)= 10.42, p=.001, phi= .19). Importantly, 30% of emergency retirees (50/169) displayed 'full' (11%, 18/169) or 'partial' (19%, 32/169)

⁶ A further two individuals provided no details.

PTSD symptoms compared to 14% of non-emergency retirees (6%, 8/140 and 8%, 11/140). A moderate negative correlation was found between age and total PTSD symptoms ($r = -.31$, $N=304$, $p < .0005$) whilst length of time in retirement and total PTSD symptoms were also negatively correlated, albeit only weakly ($r = -.19$, $N=297$, $p = .001$). Likewise, there was a weak negative correlation between the length of time since the traumatic incident and total PTSD symptoms ($r = -.23$, $N=199$, $p = .001$).

With regard to specific symptoms, a significant difference was found with respect to re-experiencing symptoms for all those emergency ($M=1.63$, $SD=1.66$) versus non-emergency ($M=1.14$, $SD=1.50$) retirees who had reported experiencing a difficult incident ($t(231)=2.29$, $p=.02$, $\eta^2 = .02$). For example, the former typically reported feeling very “emotionally upset” when they recalled the incident (46%, 77/169) or experiencing unwelcome “upsetting thoughts or images about the incident” (40%, 67/169). Likewise, arousal scores were significantly higher, albeit not to a large extent, amongst the emergency ($M=1.48$, $SD=1.74$) versus non-emergency ($M=0.80$, $SD=1.30$) retirees who had experienced a difficult incident ($t(229)= 3.18$, $p=0.002$, $\eta^2 = .04$). There was no significant difference in avoidance scores for the two groups.

6.7 Social Support

High levels of social support were seen across all participants in relation to: having people who care about what happens them; getting love and affection; and getting help when sick in bed. Moderate levels of social support were seen across all participants in relation to: getting chances to talk to someone about problems at work or with my housework; and getting chances to talk about money matters. Lower levels of social support were seen across all participants with regard to receiving invitations to go out and do things with other people and obtaining useful advice about important things in

life. The total score for social support was not significantly different across groups. There was a moderate, positive correlation between the total social support and total QoL score ($r = .47$, $N=273$, $p < .0005$) but a strong, negative correlation between the total social support and PTSD symptomatology ($r = -.51$, $N=278$, $p < .0005$).

6.8 Other Findings

Participation in part-time work was marginally higher for emergency (23%, 38/166) than non-emergency retirees (16%, 22/137), although this fell short of significance. This may be explained, in part, by the earlier retirement age of fire service retirees (retirement age of 55 years for fire service retirees included in this study). Interestingly, the most commonly reported form of part-time work in which this group was involved, were forms of work associated with their earlier career, such as delivering occupational first aid, although importantly, these roles did not ordinarily include exposure to Critical Incidents. Those who participated in part-time work reported significantly higher levels of QoL ($M=474.63$, $SD=76.02$) when compared to those who did not ($M=445.74$, $SD=80.67$) ($t(296) = 2.51$, $p = .013$, $\eta^2 = 0.02$). A significantly higher proportion of non-emergency retirees (51%, 71/139) participated in voluntary work when compared to emergency retirees (32%, 54/167) ($\chi^2(1, N=303) = 10.27$, $p = .001$, $\phi = -.19$). Those engaged in voluntary work also reported significantly higher levels of QoL ($M=469.17$, $SD=67.96$) than those not engaged in such work ($M=439.92$, $SD=85.74$; $t(292) = 3.29$, $p = .001$, $\eta^2 = 0.03$).

Interestingly, a significantly larger proportion of the emergency group (72%, 118/166) rated themselves as very resilient when compared to their non-emergency counterparts (60%, 83/139) ($\chi^2(2, N=305) = 10.18$, $p = .006$, $\phi = .18$). More than one quarter of the former (28%, 47/166) rated themselves as 'somewhat resilient' compared to 34%

(47/139) of the non-emergency sample, and only 1%, (1/166) of the emergency sample felt that they were not a resilient person compared to 7% (9/139) of non-emergency retirees.

Table 6.3: Levels of smoking and alcohol consumption

	Emergency group – N (%)	Comparison group – N (%)
Smoke – yes	14 (8)	9 (7)
Smoke – no	123 (92)	129 (93)
Consume alcohol – yes	119 (71)	95 (69)
Consume alcohol – no	48 (29)	43 (31)

Levels of smoking and alcohol consumption are presented in Table 6.3. Those who reported consuming alcohol (hereafter referred to as drinkers) also completed the CAGE. The breakdown of CAGE responses for both groups of ‘drinkers’ is presented in Figure 6.6.

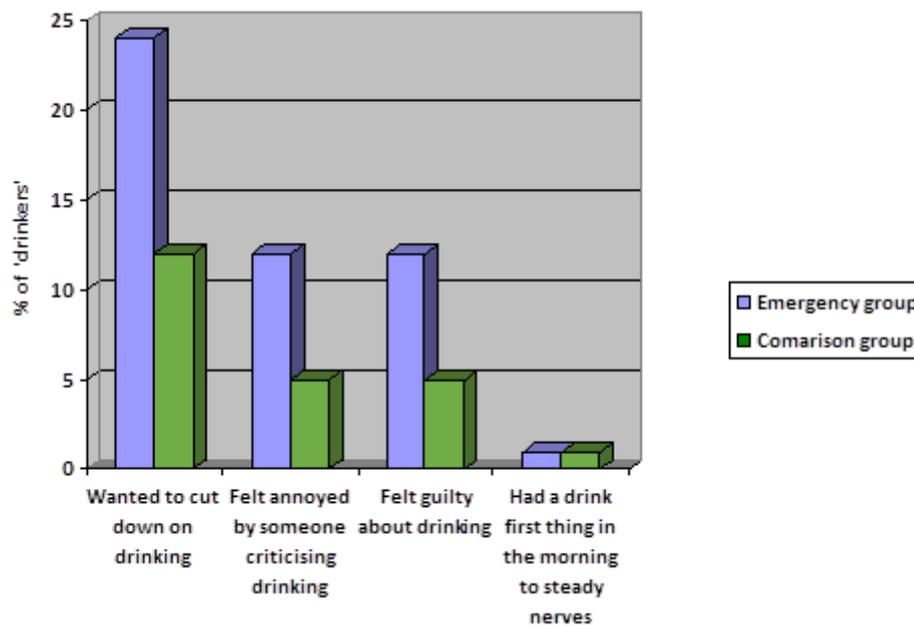


Figure 6.6: CAGE responses for emergency (N=119) and non-emergency ‘drinkers’ (N=95)

Most respondents (94%) did not display levels of problem drinking (using a cut-off score of two on the CAGE). An independent samples t-test reported a significant

difference in QoL scores for those who demonstrated levels of problem drinking (M=392.26, SD=92.25) and those who did not (M=453.99, SD=79.19); $t(295)= 2.29$, $p=.023$). However, the magnitude of the difference in means (mean difference= 61.73, 95% CI: 8.72 to 114.74) was relatively small (eta squared= 0.02).

6.9 Summary of Key Findings

Quality of Life

- The overall QoL of the emergency group was significantly lower than their comparison group counterparts and also significantly lower than a normative sample.
- QoL scores were significantly higher in those who reported greater perceived resiliency; a significantly larger proportion of the emergency group rated themselves as very resilient when compared to the comparison group.
- Levels of satisfaction with health were significantly lower in the emergency group.
- QoL was associated with age but only weakly so.
- Those who participated in part-time work had better QoL than those who did not; likewise, those engaged in voluntary work reported significantly higher levels of QoL.
- Functional social support was positively associated with QoL.

Experience of Trauma

- One in 10 emergency retirees noted that there was no incident which they found particularly difficult to deal with, compared to one third of non-emergency retirees.
- Difficult incidents experienced had taken place, on average, 19 years previously.

- A large proportion of emergency respondents reported that the most difficult incident with which they had to deal was related to their professional experience with incidents characterised by several recurring themes involving: children and young people; particularly unusual or horrific incidents; incidents of particular significance to the respondent; bombings; and incidents where the respondent felt helpless.
- Levels of PTSD symptomatology were significantly higher in the emergency retirees than in the comparison group; more than twice as many of the former reported 'full' or 'partial' PTSD symptoms.
- PTSD symptoms were associated with a number of factors including: an emergency background; younger age; less time in retirement; a shorter length of time since the traumatic incident; lower levels of social support.

CHAPTER SEVEN: RESULTS STAGE THREE

This chapter outlines the results from Stage Three of the study. As described in Chapter Four, this stage involved a small number of in-depth qualitative interviews with emergency service retirees which were designed to supplement and amplify the findings generated from Stages One and Two and, in particular, to explore the experiences of participants at different stages of retirement and the factors influencing their transition to retirement. A further two case-studies are presented and explored in the chapter that follows.

7.1 Participant Profile

All interview participants were male with a mean overall age of 67 years ($SD= 4.47$, Range= 17), and all were aged within one SD of the average age of the Stage Two sample. All participants were married, with at least one child ($M= 3.11$, $SD= 0.87$, Range= 2), and were retired for 5.87 years, on average. At the time of the study, none of the sample was participating in part-time work and none displayed symptoms of full PTSD symptomatology. All demonstrated good QoL, with scores above 60 for all WHOQOL-BREF items, representing a typical and high functioning group.

7.2 Key Themes

The interview served as a process of reflection for interviewees whereby they were encouraged to explore their own experiences through questions and probes from the interviewer. An overview of the emergent themes, and associated sub-themes, from the IPA is provided below in Table 7.1. Each theme is then discussed, in turn, below.

Table 7.1: Emergent themes and sub-themes from the IPA

Key Theme	Sub-theme(s)
Retirement as a major life change	‘Crisis’ period Adjustment period Ripple effect of retirement Finances Importance of family
Impact of working role	Family Health and well-being Moving on from the job Positivity and sense of freedom
Prior commitment to the job	Commitment to the role Enjoyment of the job
Health and ageing	Importance of health Awareness of ageing
Trauma	Personal experience of trauma Impact of trauma Trauma management
Insular nature of emergency services	Unique nature of role Stress of role

7.2.1 Retirement as a major life change/transition

Retirement as a major life event was a key theme identified from the analysis of all interview transcripts, and described quite effectively as jumping “a hurdle” by one interviewee (**61 year-old retired from fire service 3 years**). Importantly, all but two of the interviewees (n=8) felt that it was ‘time to retire’ thereby indicating a feeling of control over their retirement decision and, indeed, this appears to have been an important factor in their acceptance of retirement and their generally high levels of satisfaction with this period following their career where they felt they had control in their work. Despite this, and somewhat paradoxically, four interviewees expressed a desire to have remained in the job longer and a reluctance to retire, although this may be that they were looking back on their career with ‘rose-tinted glasses’ (though this was

not directly stated). This suggests some unwillingness perhaps to accept retirement as the next life stage. Notably, two of these interviewees felt that they were different to others in how they viewed their retirement; whilst they felt that others would look forward to retirement, they were reluctant to retire. Another two interviewees reported that they had experienced mixed emotions about retiring and leaving their job, whilst two others expressed a sense of relief.

The multidimensional nature of the decision to retire was evident and a number of factors had been considered in the retirement decision including finance, overall health and well-being, consideration of the experiences of others, and changes within the organisation. In relation to pre-retirement courses, two interviewees outlined that they had completed these, although four others expressed dissatisfaction that they were not supported to attend such a course. These findings suggest that pre-retirement information was generally important to the group. Interestingly, four participants indicated that they had either retired prior to (n=2) or after retirement age (n=2). The findings suggest that for the group as a whole, retirement was a significant period of transition which required considerable adjustment and, for most (n=7) had led to a short period of crisis whereby they had struggled with the many changes to their lifestyle as a result of retiring from the emergency services. This may be summed up by one interviewee who described this period as a *“wrench”* (**67 year-old retired from ambulance service 4 years**). Others referred to feeling surplus to requirements and no longer feeling needed (n=2); arguably, this might have an even greater impact on those whose career had focused on helping others. Feelings of being lost or in limbo once retired, and left to ‘sink or swim’ were also apparent (n=3). Other major losses described by participants included: support and friendship; identity; responsibility; control; and excitement.

Struggling with perceptions was also common (n=4). For instance, two interviewees had difficulty in being perceived as a retiree by others, one of whom had strong negative associations with retirement and who became very emotional at this juncture in the interview; he was clearly mourning the loss of his previous life. [The interviewer managed this display of emotion by providing the interviewee with assurances that he did not have to continue, and should take his time.] Likewise, two others struggled with the discrepancy between their expectations of retirement and the reality, which appeared to be a major factor in leading to a feeling of crisis and despair; another had turned to alcohol in an attempt to manage this crisis.

The drastic changes that accompanied retirement and the need for a subsequent period of adjustment were clear from all of the interviews. Eventually, the majority of the men made the transition from an initial crisis stage to a stage involving migration and changing of life goals, commitments, roles, plans and experiences. Six of the interviewees alluded to changes such as changes in responsibility, status, and power, and a shift in priorities and lifestyle. Others coped better with this period of adjustment mainly because they tried to keep busy and fill the extra time that they found themselves with. The efforts to remain occupied and busy appear to have been a legacy of their work, and seemed to help the retirees avoid over-thinking things or focusing on any negative aspects of retirement. For example, one interviewee when speaking about retirement stated: *“I’m a fairly active fellow...I fill my time. I find it busy...Having friends is important to everybody. It’s nothing to do with retirement. I mean you have to go somewhere.”* **(70 year-old retired from fire service 11 years)**

Notably, most of the sample (n=6) indicated that they were very busy and that their time was filled in their retirement, although two of this group felt that their life was too busy

and expressed a desire for a slower pace of life. As stated above, this preference for being active and busy in retirement may reflect a preference for retaining the feeling of commitment and activity of their former employment. On a related point, hobbies, holidays and family were also highlighted as an important aspect of retirement and some of the interviewees also emphasised the changes in their activities and interests which had occurred during this period of adjustment and transition. There was a sense, in some cases, that these activities served as a replacement for work activities. The importance of support and information for retirees, both pre- and post-retirement, (e.g. pre-retirement courses) was emphasised as an important factor in the successful adjustment to retirement as was the suggestion for some kind of ‘wind-down’ period prior to retirement. Almost half of the group (n=4) alluded to the importance of a shift in thinking in retirement, whereby the focus must be on positivity and looking forward; that is, seeing retirement as the beginning of a new chapter rather than the end of life:

Don't let retirement be something, let it be another adventure and a new step in life, let it be the beginning of a new experience and don't look at it as the end of your working career and you're now in the scrapheap. (66 year-old retired from ambulance service 1 year)

Perhaps unsurprisingly, in light of the above, most of the group highlighted the importance of planning for retirement so that they could feel better prepared for the period of adjustment required. At the time of the interview, it seemed that four of the participants had not yet fully accepted, and made a successful transition to, their retirement. This suggests that the processes required to make that transition from the initial crisis stage of retirement through to the acceptance stage can be lengthy and complex. One interviewee tellingly referred to his previous working life and commitment to his job as “*That's in a box; that's over there.*” (67 year-old retired from ambulance service 4 years)

The ripple effect of retirement for the whole family was also discussed by half of the group. A change in domestic life as a result of retirement was identified by all but one of these interviewees, where the husband commonly took on more domestic duties once retired. One interviewee became quite emotional when discussing this shift in domestic responsibilities (notably, this was the same interviewee who became emotional at another juncture in the interview, as above) and indeed, this was perceived as negative for two of the men who felt that they were 'getting under their wife's feet', or the change in domestic life was a source of conflict in the marital relationship (explored further in Section 7.2.2). It was evident here that the role change involved in retirement commonly had a knock-on effect for the family, and, in particular, the spouse whereby her life was also greatly changed through her husband's retirement. Conversely, another interviewee described his retirement as "*our time*" (**63 year-old retired from ambulance service 1 year**) - a time for him and his wife, thereby differentiating between his working life where his focus was more often on his job than on his wife. Interestingly, one interviewee spoke in quite critical terms about how he was treated as a "*mantel of stupidity*" (**67 year-old retired from ambulance service 4 years**) by his family since retiring, thereby demonstrating the potentially negative perceptions of retirement and older people held by some. The perception of who and what a retiree is, therefore, is not only important for the individual themselves, but also for their family and wider social network.

Finances were also identified by the entire group as a significant factor in the retirement process, and the importance of financial security in retirement was recognised by all but one of the interviewees. For example, one interviewee stated "*...quality of life; I'm grand because I have a few bob, I have a good pension*" (**70 year-old retired from fire service 7 years**) whilst another said "*...if you feel financially secure, it does allow you*

to enjoy retirement” (67 year-old retired from ambulance service 4 years). It is not surprising, therefore, that this as well as family circumstances (e.g. number of dependent children) was also a critical factor in the retirement decision made by all but three of the interviewees: *“I was lucky in that my children were all finished their education, so they were all self-sufficient; they didn’t need me or any financial help that might cause me to defer my retirement.” (70 year-old retired from fire service 11 years)*

The importance of family emerged as an important sub-theme here, in managing the major life change of retirement and three interviewees linked family with happiness, well-being and/or quality of life. For example, one stated: *“I think if your family life is happy enough, you’re half way there.” (63 year-old retired from fire service 9 years)*

Grandchildren were highlighted as being particularly important to all but three of the group and it was clear that they enjoyed the time spent with their grandchildren. In two cases, it emerged that grandchildren served as a reminder of their youth and allowed the interviewees to re-live their experiences of raising their children and giving them another chance or “starting again” at rearing children:

I was lucky in the sense that the year I retired, I had a granddaughter, and then a year or 2 after that I had another...I spent a lot of time with the grandchildren. And spending time with them helped. Their innocence contrasted so much to the experiences [of the job]. It was beneficial for me but I enjoyed being with them too. We have a fairly full life around the grandchildren. It’s great to be conscious of the fact that you’ve got another shot at bringing up this special little person. I find it very enjoyable... The grandchildren; they’re the most perfect, perfectly innocent thing on the earth if you put it that way. I just love being with them. (67 year-old retired from fire service 12 years)

The innocence mentioned above appears to serve as a perfect foil for the harsh realities of emergency services work. Clearly, in some cases, retirement had brought about positive changes in the grandfather-grandchild relationship due to the greater amount of time available to spend nurturing this relationship. Overall, the findings point toward

the large amount of time that has been spent by interviewees outside of the home and away from their families during their career and the impact of this on the relationship with their children and grandchildren. Arguably, this is the case for most retired people but importantly, the shiftwork nature of the emergency services, as well as the high level of commitment given to the job may have been a compounding factor in this group.

Half of the interviewees highlighted the spousal relationship and the importance of support from their spouses to be of particular importance in their life and a vital contribution to their happiness. The importance of family support was also mentioned and is eloquently described by one interviewee below:

I say I'm a loner and I probably am but I still need that family unit round me, and I'd be lost without that. I would definitely be lost without it. They're my bulwark against the world. I lean on them, they give me strength to enjoy what I want to do...They're my armour against the world. They're the ones I can rely on; no matter what comes they are there for me, as I am for them. (67 year-old retired from ambulance service 4 years)

7.2.2 Potential impact of the working role

All but one of the interviewees reported that their work in the emergency services had had a profound impact on their family life. For example, one interviewee stated “*I've spent an awful lot of time, sometimes to the detriment of the family I have to say, doing things for the [organisation]*” (67 year-old retired from fire service 12 years), while another said: “*I don't know whether I paid a high price, too high a price, within my personal life, to get a financial reward at the end of it*” (67 year-old retired from ambulance service 4 years). Both of these comments reflect the fact that family life had been sacrificed for ‘the job’. The impact of their work on their spousal relationship was also alluded to:

I think retirement for me has been more stressful than working life. You're encroaching upon a woman's territory. She's been used to having the house her

way, likes things a certain way. She has her own life planned out. And all of a sudden, this lad who she's been married to, something like a stranger coming in encroaching upon her territory, following her 24/7 (67 year-old retired from ambulance service 4 years).

Use of the word 'stranger' here emphasises the distance placed between husband and wife during working life and the impact which this had on the spousal relationship. This also alludes to the separation of husband and wife in working life and the detachment which can be felt by the husband towards the home and domestic life. Further comments were made about the time constraints placed on family life, and a feeling of never being at home. Two interviewees reported sharing their experiences with the family and it is likely that these also impacted negatively on the family as a whole: "*I was the one that went to work but I brought home the stories and the experiences and everybody lived them; we all lived those experiences.*" (61 year-old retired from fire service 3 years). This may not, however, be a typical occurrence as the importance of not bringing work home was emphasised elsewhere (see Section 7.2.5).

The impact of the job on health and well-being also emerged from the analysis with an acknowledgement from three interviewees that the job had an overwhelmingly negative impact on their physical health (e.g. hip pain, asthma, arthritis) as well as on their colleagues: "*The amount of guys that I saw staying there till they were 65; they came out and within 2 years they were dead, others were feckin' on crutches, on sticks with arthritis.*" (63 year-old retired from fire service 9 years) It was also acknowledged that the job became more difficult with age and was more physically demanding in later years. It was apparent from a number of interviews (n=6) that it was generally difficult for these men to simply forget about the job once retired and to move on with a 'clean' break. For example, six of the group openly stated that they missed the job as well as the relationship which they had with their colleagues. In some cases, they retained a

strong interest in the job through other family members working in the same role or by discussing in detail, changes to the organisation since they had retired.

Whilst most of the group (n=6) expressed mixed emotions in relation to retaining some kind of link with the organisation in retirement, almost all expressed a desire to do so, to a greater or lesser degree. Therefore, it was clear that, overall, they had positive views of their previous working role, at least in terms of their strong relationships with former colleagues. Notably, these connections were of two types – either a direct link with the organisation itself and those still employed within it, or sustained contact with other retirees of the organisation. Indeed, all but three of the interviewees indicated that they had contact with other retirees of the organisation, and some explained that this was due to the strong collegial relationships that they had developed whilst still employed. Furthermore, most expressed a strong reluctance to cut their ties with the organisation, perhaps reflecting how the extent to which their strong sense of identity and worth are tied in with the organisation. The remaining minority of interviewees expressed more conflicting views in relation to their desire as shown by one who commented: *“I never joined it (retired members association) because I didn’t know what retirement held for me and I didn’t want to be seen as someone still trying to hold on to [the organisation].”* **(61 year-old retired from fire service 3 years)** Other reasons for a desire to remain more detached from the organisation included: a desire to escape from the past; a feeling that the retired members association in place for fire service retirees revolved heavily around alcohol; and a concern that meeting former colleagues might lead to stress.

Notably, despite some ambivalent views about certain aspects of retirement and an experience of retirement as a stressful transition for some, all interviewees expressed

overwhelmingly positive views about the greater freedom that retirement had brought and this emerged as an important sub-theme from the analysis. For example, one interviewee indicated that he was “...*absolutely loving it...There’s no better way to describe it than just ‘I’m loving it’.*” **(61 year-old retired from fire service 3 years)**

All but one referred to this new-found sense of freedom and especially with regard to how they were free to spend their time in whatever way they chose; this was conveyed as a very important and enjoyable experience (see Box 7.1). For instance, participants referred variously to: a sense of ‘owning’ their time; freedom from the worry, rush, rules and responsibility of work; freedom to take holidays when they please; not having to follow the rota; having more time for themselves and their family; greater scope and freedom to socialise and to engage in hobbies; and escaping shiftwork. This sense of freedom contrasts sharply with a life-long ‘high-octane’ shiftwork-based occupation.

Box 7.1: Selection of illustrative quotes relating to the freedom of retirement

“The other satisfying thing is to be able to just see a holiday, book a holiday and be gone the next day without having to go through work to get time off and pay it back and all the rest. I can get up in the morning and just go to the park. I don’t have to think ‘Am I in work today?’ I go for a swim when I want to, which I couldn’t do. Everything had to be planned.” **(61 year-old retired from fire service 3 years)**

“The good thing about retirement is that you don’t have the worry of the job.” **(67 year-old retired from ambulance service 3 years)**

“It’s a gift to be able to not work weekends, not work bank holidays; to be able to plan anything without even, just saying, ‘yeah I will go’, without even having to think about it.” **(63 year-old retired from fire service 9 years)**

Indeed, a generally positive mental attitude amongst virtually all of the interviewees was apparent throughout and it would seem that this positive life view/mental attitude is associated with high QoL in retirement from the emergency services. This positivity included such things as: seizing the day; turning negative experiences into positive ones; seeking out positivity; focusing on the future; not taking things too seriously; and

a determination to enjoy retirement. A small number of interviewees (n=3) also demonstrated a sense of spirituality which led them to focus on the ‘positives’ in life:

Any difficulties I've had or still have with retirement, I still believe in my heart and soul that it's going to come right. Somebody somewhere, the man above, that's part of his plan. That's my belief; that's the way I am. (67 year-old retired from ambulance service 4 years)

7.2.3 Prior commitment to the job

A high level of prior commitment to their job and working role was another common theme across all interviews (see Box 7.2). Indeed, the analysis revealed a passionate enthusiasm and dedication amongst participants for their work in the emergency services, along with a high level of enjoyment of the job. For example, one interviewee commented:

I never went to work unhappy saying 'I wish I hadn't to go in here', like lots of people do in their job. I always went in as happy as could be. It never got me down going to work; never, never, never. And I often stayed down far longer than I needed to. I liked the job. (68 year-old retired from ambulance service 3 years)

It was also evident, from all but one of the interviewees, that they had dedicated a substantial proportion of their lives to, and had enjoyed many aspects of, their work, as illustrated by the following quote: “*It's more than an outside job, it's more a way of life.*” (70 year-old retired from fire service 7 years) By contrast, however, the remaining interviewee alluded to the fact that he felt there was no escape from the job and that this had affected his spousal relationship:

The wife always felt that my life belonged to the ambulance service, and she and the family took second place. Now they didn't but I can well understand how she would think that; the hours I was working. The ambulance service is 24 hour; you could be called out at any time to do anything. (67 year-old retired from ambulance service 4 years)

This illustrates a delicate balance between committing to the job and committing to wife and family. Notably, when one interviewee was talking about how he managed stress in

his life, he used the past tense despite using the present tense throughout the remainder of the conversation when referring to other aspects of his life. This suggests a feeling on his part, that, to some extent at least, his life was ‘over’ since retiring, or that the most significant or worthwhile part of life was over.

Box 7.2: Selection of illustrative quotes relating to the time and commitment dedicated to the job/work role

“I [would have] consider[ed] myself a child going in. I was 20... I was boy and man in the fire brigade...I never worked a day in my life, as my father used to say. If you enjoy your work, you’ll never work a day in your life.” (61 year-old retired from fire service 3 years)

“There are people who are in the brigade whom I grew up with.” (70 year-old retired from fire service 11 years)

“When you work for the [Health Service], almost in any capacity and particularly the ambulance, it involved night duty, weekends, shiftwork, late finishes and a lot of overtime, being called in to do emergency runs. It meant that in my working life you could never commit yourself to anything. There was no such thing as saying ‘there’s a meeting every Monday, I’ll be there’.” (66 year-old retired from ambulance service 1 year)

“The wife hated the ambulance service with a passion. She actually hated it, because I think to her, always thinking all my energies and everything was devoted towards the ambulance service. Now I also loved my family but she couldn’t get her head around the fact that I was fully, fully and maybe too much committed to the job.” (67 year-old retired from ambulance service 4 years)

The importance of job satisfaction and its link to health and well-being were also highlighted (n=4). Specific aspects of the job which were identified on a recurring basis as rewarding included: collegial relationships (n=9); helping others (n=5); the variety of work which the job entailed (n=4); and the ‘high adrenaline’ nature of the job (n=2) (see Box 7.3). It is worth noting that one interviewee, when speaking about the time which he spent in the job, referred to how he had “*served in [the organisation] for 29 years.*” (61 year-old retired from fire service 3 years) Use of the word ‘served’ here is interesting as it suggests that the interviewee felt he was working for, and helping others, throughout his career.

Box 7.3: Illustrative quotes relating to enjoyment of the job

Collegial relationships

“I’ve met some fantastic, brilliant people in my life. I couldn’t have dreamt of working with the people I’ve worked with because they were just all magnificent.” (61 year-old retired from fire service 3 years)

“These people that we would have retired all together, would have been good friends in work... They were colleagues that you worked with, you knew their wives, you knew their children; you knew everything about them.” (63 year-old retired from ambulance service 1 year)

Helping others

“Even in your own life, if you call the fire brigade, there is nobody else. The fire brigade is your last line of help so if we can’t help you there’s nobody going to help you and the fire brigade never let anybody down. They were always there. So from that point of view I find it a very, very positive experience. I’m so happy I got the opportunity to experience it.” (61 year-old retired from fire service 3 years)

“I liked the job and it was very rewarding dealing with people all the time and when you see somebody after having a bad accident or something and see them well again, you get great satisfaction out of it.” (68 year-old retired from ambulance service 3 years)

Variety of work

“I loved the job and there was always something going on. There was always something to be done and no two days was the same. There was always a variety.” (70 year-old retired from fire service 7 years)

“That’s why I liked the job so much, because no two days were ever the same. You went into work and you could have a lovely handy day and nothing much would happen. You could go in the next day and you’d have the most interesting day...You wouldn’t mind going to work because you would say ‘it’s not going to be the same as yesterday.’” (68 year-old retired from ambulance service 3 years)

High adrenaline nature of job

“There was the buzz of going out on, I know it might sound a bit macabre but you were attending serious situations, accidents, maybe even maternity runs, transferring critically ill patients. And you were all the time on a sort of an adrenaline rush.” (66 year-old retired from ambulance service 1 year)

7.2.4 Health and ageing

As might be expected, health and ageing were important concerns amongst interviewees and this was identified as a key theme in the analysis. The importance of good health was emphasised by all interviewees in relation to their QoL in retirement. Two interviewees also alluded to the importance of their family’s health as well as their own.

The importance of physical fitness and activity in maintaining health was highlighted by half of the group. For example, one interviewee stated that: *“exercise is a great way of avoiding things like depression; and all the whilst you’re exercising, you’ve no time to allow things to get in on you.”* **(67 year-old retired from ambulance service 4 years)**

The importance of mental health specifically was also raised by four interviewees; *“one’s independence depends on one’s physical condition and mental condition.”* **(70 year-old retired from fire service 11 years)** The focus on mental health here is an acknowledgement, at least in part, of the potential impact of stressful and traumatic incidents on *both* physical and mental health. In line with this, a small number of interviewees emphasised the importance of monitoring and maintaining health, both prior to and during retirement: *“It’s a hyped up job. It can affect your health and if you’re unlucky enough not to recognise it affecting your health, then you’re on a loser.”* **(63 year-old retired from ambulance service 1 year)**

A fear of ill health and being incapacitated was expressed by two interviewees and this may stem from the internal conflict arising from having to be cared for as opposed to caring for others throughout their career, although importantly, being incapacitated may be a legitimate concern of any older person. This focus on health also appeared to be linked with interviewees’ awareness/consciousness of the ageing process itself (n=9; see Box 7.4)), as interviewees were evidently aware of the importance of health for successful ageing (e.g. the importance of monitoring health as outlined above).

Box 7.4: Selected illustrative quotes relating to awareness of ageing

“I’m part of yesterday’s year now.” (61 year-old retired from fire service 3 years)

“I’m getting to the stage now where I have to watch where I go because I’m not as fit as I used to be.” (67 year-old retired from fire service 12 years)

“I’m 70 now so I’m less likely to do it now.... I’ll have to just cope with whatever comes along and I think I’ll probably do that reasonably well. But you’ve got to face facts; that’s living and dying.” (70 year-old retired from fire service 7 years)

“When I was coming to retirement age I found it difficult working at night, driving all night and all that sort of thing.” (68 year-old retired from ambulance service 3 years)

“I done the job right but I didn’t feel that, I wouldn’t have done it the same as I’d done it, say, 15 years ago. Like obviously when you’re younger you’re going to be more alert.” (63 year-old retired from ambulance service 1 year)

All but two of the interviewees had, at least to some extent, reflected on their mortality as a result of entering retirement and viewing it as the final stage of life as illustrated by the following comment: *“retirement in my generation in my head was always ‘you’re over the hill, you’re gone, you can’t do it anymore’.” (61 year-old retired from fire service 3 years)* Another interviewee alluded to the high rate of mortality among retirees whilst mortality was also linked, in a small number of cases, with negative thinking and having nothing to do, or no plans for retirement.

Half of the group had experienced some kind of difficulty or conflict with the ageing process and particularly with stereotypical views of ageing and the disparity between how they saw themselves versus others, to the extent that they showed a reluctance to seek or receive any kind of help. For instance, one participant commented:

I can’t see myself as an older person. I just don’t allow myself to think of myself as an older person. And I look at people my own age and go ‘God, they’re gone very old’ but I never see myself as the same age. Up here [points to head] I’m still on cue, thinking about if something happens, first in, get it sorted, and get out. So although I retired, I never retired in my head. (61 year-old retired from fire service 3 years)

By contrast, four interviewees showed an acceptance of the ageing process: *“I figure that as the years go on, you become aged, you become infirm and maybe you grow a bit shorter. It’s going to happen because it happens to everyone.”* (**67 year-old retired from ambulance service 4 years**) It is difficult to pinpoint what distinguished the transition to retirement for these interviewees as each had been retired for a different length of time, ranging from one to 11 years, suggesting perhaps that other factors such as spousal support, life experience etc. may be at play.

7.2.5 Trauma

All but two of the interviewees discussed their experience of trauma and Critical Incidents in the job; indeed, the unpleasant and stressful nature of these experiences was apparent throughout and illustrated with many graphic accounts of what these men had experienced when carrying out their day-to-day work (see Box 7.5). For example, one interviewee stated: *“It’s not a very pleasant thing sometimes when you have to handle bodies or what’s left of them.”* (**67 year-old retired from fire service 12 years**) The sense of freedom from this in retirement was specifically mentioned by some. For example, one interviewee here outlined: *“You were seeing horrible, cruel things. You were seeing kids being killed and you were seeing people being burned, and people being mangled in car crashes and that. And you were so happy to get away from it.”* (**63 year-old retired from fire service 9 years**)

It was clear from the responses of half the group that these traumatic experiences had ‘left their mark’. One interviewee suggested that all personnel are affected by post-traumatic stress, although this may have been an attempt to rationalise or normalise his own feelings and reactions: *“Most of us suffer from Post-Traumatic Stress Disorder; that you’re dreaming about it, or you get flashbacks, and you seen thing that other people don’t.”* (**70 year-old retired from fire service 7 years**) The use of ‘Post-

Traumatic Stress Disorder' here should be viewed with caution as it would appear the interviewee is alluding more to symptoms of post-traumatic stress, and normal stress reactions rather than the disorder itself. Others also spoke about the impact of exposure to trauma and the fact that this may go unnoticed by the general public whilst being very common in the service, albeit with individuals having different triggers and being affected to varying degrees:

I don't think I'm special. I'm not a one-off job. I've always figured that I was pretty much Mr Average...Everybody has their own trigger or whatever it is. Something triggers off an incident and it affects me but it won't affect you. (67 year-old retired from ambulance service 4 years)

The potentially profound impact of early career trauma was also singled out for discussion, thereby suggesting that the level of trauma following an incident may be determined, at least in part, by the extent to which an individual is experienced or not and, therefore, the level of trauma to which they have been previously exposed (referred to as a 'baseline' level of trauma by one interviewee). Child-related incidents were highlighted by several interviewees as being particularly traumatic as indicated by one participant who commented: "*Somehow to me, the death and injury of adults didn't affect me as much as children because I felt they needed to be protected. So for them to be injured, somebody failed.*" (70 year-old retired from fire service 11 years). The trauma associated with these kinds of experiences appeared to be compounded by whether or not interviewees were parents themselves, as well as some degree of familiarity with aspects of the incident (e.g. age or appearance of the child resembling own child, same vehicle in accident as own vehicle). For example, one interviewee stated:

I've been to far more traumatic incidents than that (incident involving four children in a road traffic collision) but that was the one that stayed with me. Maybe it was the children, and my children, or one of my children at the time was about the same age as a little boy I was carrying who...he was dead.(67 year-old retired from ambulance service 4 years)

Box 7.5: Selected illustrative quotes relating to the experience of trauma

"I can remember a child being knocked down by a bus and he was the same age as my own eldest lad. I can remember the scene. I can remember a green skid mark on the ground and it was because he had a green jumper on... I can remember a woman ran down to answer the phone bathing the baby...and the baby had drowned. She couldn't accept it. I can remember how distraught she was...I can remember taking the baby to hospital and working on the baby, all the way to hospital even though you knew the baby was gone. You couldn't just sit there and look at the baby and look at the mother; she was so distraught. Those kind of things never leave you... I get a bit emotional when I think of those cases and I did at the time, at the time they happened, they upset me."
(70 year-old retired from fire service 11 years)

*"It was always something; it was like a f****n' safe in the back of your head. That all the stuff was in it and it was always there and it was just part of you. That was part of your job...I would still have photographs in me head of stuff I seen feckin' 30 years ago. It wouldn't bother me but I still have them and I can still see them. I'd only have to close me eyes and see stuff that you didn't want to see."*
(63 year-old retired from fire service 9 years)

"It (explosive device) killed three of them and there was another 10 with very bad injuries. So that was the first place I ever was sent. Wasn't that a tough start? [laughs] And to this day I still can remember their names, of the youngsters that were killed."
(68 year-old retired from ambulance service 3 years)

"A woman was brought out and I thought she was in a brown dress but the brown dress was burnt into her and she was put into my arms and I went up and I put her into an ambulance."
(70 year-old retired from fire service 7 years)

"Some trauma would exist in the corner of the mind. The incident itself; there were about 4 kids there and I carried the little lad and he was dead. It was traumatic for all the staff involved. I was the first at the scene, whether that made a difference or not I don't know. So you can see the horror of it...It wasn't the first death I'd seen on the road or handled but it was certainly the first child in those circumstances. It's always in there, in the recesses, those dark little corners of your mind. Whether it was because my eldest lad at that time was round about the age of this child. He would have been about five and the little lad, I think he was around about that age."
(67 year-old retired from ambulance service 4 years)

Two interviewees, tellingly, spoke of the trauma that they experienced in the job as being "locked away" in a safe or in a box in their head. These kinds of descriptions point toward the potential risks of this kind of trauma exposure as it may build up cumulatively over time, to the point that the only way perhaps for someone to manage it (and especially if not supported), is to pretend that it never happened, or to hide it away.

Collectively, these findings highlight the overwhelmingly negative impact of the trauma experienced as part of the job. Further illustrative quotes are provided in Box 7.6.

Box 7.6: Illustrative quotes for impact of trauma

“The trauma’s still there. When I retired at first, the wife was saying ‘well, what was the dream last night?’ I never got to the why I was having this dream, all these dreams. I’m still having dreams about the fire brigade and whether it’s just doing paperwork or maybe a report or getting up onto the fire engine and heading off for some place. It’s still there.” (70 year-old retired from fire service 7 years)

“I, even now I can picture in my mind, God it must be 26, 27 years, an incident that stayed with me... I wouldn’t say it’s a burden I carry but it’s there; there in the dark recesses of your mind, it’s kind of always there.” (67 year-old retired from ambulance service 4 years)

“Other people sometimes brought their baggage home with them and that can be a bad thing.” (63 year-old retired from ambulance service 1 year)

“I could recall 10 or 12 different tragedies to you now that were just small tragedies but they never left me.” (70 year-old retired from fire service 11 years)

“We were there from say, 2 o’clock in the morning. And we didn’t leave till half 7, and it went like that [snaps fingers]. You didn’t remember half the things you done, half the things you seen.” (70 year-old retired from fire service 7 years)

The importance of support following trauma was also emphasised by several interviewees with one suggesting that provision of support should be mandatory following trauma exposure whilst others indicated that there was very little support from the organisation following trauma for the majority of their career (although improved support services had been implemented in later years in the form of Critical Incident Stress Management). The potential ripple effect on the family, of trauma exposure for the emergency service practitioner was also highlighted.

Most of the group (n=7) described how they had coped with, and managed, their trauma and their strategies and techniques included: focusing on the rewarding nature of the job; dreaming about the traumatic incident; expressing negativity; focusing on the job rather than the trauma; and focusing only on the most recent call so that the previous

incident, if traumatic, could be more easily suppressed. Notably, three interviewees appeared to have become accustomed to the high level of trauma exposure and indicated that it ceased to have any kind of negative impact on them over time, and that they became better able to manage stress over time:

You couldn't do the job if you let all those things bother you because you'd be in permanent bad humour. Everyone gets used to it because you couldn't do it if you didn't. You would feel really sorry when people would be killed but life has to go on and you forget about it with the next call. It's as simple as that...It might sound very harsh but that's the way it is. (68 year-old retired from ambulance service 3 years)

Black humour, in particular, was highlighted by four interviewees as a common strategy for managing trauma exposure and was seen by some as peculiar to emergency services work and may not be understood by those outside of the job:

Black humour gets it out of your system... It was always a bit of fun. Even if you were taking a person out of the river, a body out of the river, there was always some remark made. The jokes that I could tell between firemen wouldn't be for your ears or for a civilians ears. That was our way of getting it out of our system. (70 year-old retired from fire service 7 years)

Thus, it was felt by some that black humour was an effective means of getting the trauma “out of your system” and as a means of avoiding bringing it home outside of the job. For example, this same interviewee commented: *“If we were to bring home all the things that we seen and all the things that we done, you'd be taking it out on someone; your family for instance.” (70 year-old retired from fire service 7 years)* While it was evident in the discussion of black humour (and other coping techniques used), that speaking to colleagues was regularly used informally and sometimes subconsciously as a source of support in managing trauma, one interviewee specifically spoke of the value of Peer Support Workers (PSWs) in managing the trauma experienced in the job:

The better person is the one that goes to the peer supporter. Regardless of whether they think they need it or not, I think they should go to peer supporters. They should be able to sit down and talk that call out. (63 year-old retired from ambulance service 1 year)

This participant also alluded to possible age differences in the extent to which colleagues would/would not talk about Critical Incidents:

The young people would have down time in the ambulance station. And young people would be all gathering together and they're swapping all the gorey stories, where the older lads, we would never talk about it. You could be out there at a shooting, you could be out at a rail accident, you could be out at a mountain rescue, you could be out on a helicopter run and we wouldn't talk about those things because I felt your time had passed by; everyone has done all those sort of things. The stories we did tell was the humorous stories, when there was a bit of banter involved in it. (63 year-old retired from ambulance service 1 year)

A key message from these findings is that the way in which traumatic Critical Incidents are managed, can change and evolve over time as the individual finds more suitable and effective ways to help them process and overcome the often overwhelming response to trauma.

7.2.6 Insular nature of emergency services

The unique nature of emergency service work and the range of different experiences which it brings, were identified and described by all but one of the sample and encapsulated by the following comment: *"It's so different than every job that you were seeing horrible, cruel things."* (63 year-old retired from fire service 9 years) Another interviewee felt that the culture of emergency service work was also different in terms of, for example, language, humour and relationships, thereby suggesting substantial differences between emergency service personnel and those in other occupational roles. The demanding nature of emergency service work was also described in terms of the physical challenges, regular exposure to trauma and a pressure to always operate at maximum capacity, to the extent that several interviewees felt that emergency service work was better suited to younger people; *"it's a young man's job."* (67 year-old retired from fire service 12 years) An interesting distinction was also made (n=2) between shift workers and 'normal' workers:

Shiftwork is hard, very hard. And you just recover after doing a week of nights when you're back in again to do the same thing. And it's pretty hard when you come home in the morning after working at night; there's tractors and there's machinery and there's everything going that wouldn't be at night and I often was just asleep when the doorbell would ring or something. It's a very disruptive life, but a very rewarding life. (68 year-old retired from ambulance service 3 years)

A perceived lack of understanding from the public about the challenging and often traumatic nature of the job – and the common use of black humour - was also mentioned by participants at a number of junctures, as was the tendency of others to sometimes hold a stereotypical and perhaps somewhat idealised view of their role. Again, this alludes to the insular nature of the emergency services and the attitude in relation to how the interviewees felt their role was generally misunderstood by the general public:

When you'd say that you're a fireman, your picture is at the top of a ladder pouring water in on a building. But you have to go into that building and you've to pull it apart. Whatever's in there, you have to take out; like bodies, bits of bodies, hangings, gassing. (70 year-old retired from fire service 7 years)

Interestingly, the majority of interviewees demonstrated characteristics typical of a loner, as indicated by their reported enjoyment of spending time alone and/or also referring to themselves in this way, alluding to the insular nature of emergency service work. Two of the interviewees reported that their social life had revolved around their job and most, if not all, of their friends were from their working life. For example, one commented: “*You ate, slept and drank with all the people that you worked with*” (70 year-old retired from fire service 7 years), thereby highlighting the sometimes intense nature of collegial relationships in the job and the potential for such relationships to become all-consuming. Perhaps also, due to the often intense nature of the job, there was not sufficient time to develop and maintain other friendships and relationships. The significance of these solitary tendencies is unclear, but it is perhaps due to the significant time and energy given to the job during working life, as well as the

restrictions of shiftwork and ‘the rota’, resulting in little time to dedicate to the ‘social self’ and friendships. It is also possible that being ‘a loner’ provided a welcome contrast to the chaos and ‘high-octane’ nature of working life (see Box 7.7 for a selection of illustrative quotes).

Box 7.7: Illustrative quotes related to being a loner

“There’s a lot of them (retirees) and they have little walking clubs and hill walking clubs and bowls clubs and all that. I was never into that. Even when I was working, if I wasn’t working I was here with the family. I never kind of met fellas in pubs, or clubs...I was either here or there; home or work. I was never a groupie, part of a gang or anything like that. I was always a bit of a loner.” (61 year-old retired from fire service 3 years)

“I am not a very sociable person. I don’t like joining clubs or playing golf, or anything like that. I’m a bit of a loner...I love being alone...I’m, not anti-social but I just don’t like clubs, I don’t like being in groups or I like to go off and be quiet about things and just do things my own way.” (67 year-old retired from fire service 12 years)

“I’m a bit of a loner; I like going fishing on me own... I get on feckin’ great with people but hobby wise I nearly much prefer to do it on me own because you’re your own master. You’re not trying to please.” (63 year-old retired from fire service 9 years)

“I’m not a great joiner of clubs. I’m not a great person for joining, bit of a loner that way. And I always have been a bit of a loner. I kind of tend to keep my own council and keep my own company... Mainly I’m a home bird so I’ll stay at home. I don’t have any social life really outside the family.” (67 year-old retired from ambulance service 4 years)

The stress of working in the emergency services was discussed by virtually all of the interviewees, although there was also a level of acceptance that this is an unavoidable aspect of the job: *“It was always there and it was just part of you.” (63 year-old retired from fire service 9 years)* Four interviewees spoke in general terms about the impact of occupational stress on staff in the emergency services. The increase in mood swings and arguments between staff were highlighted as a result of the high-stress work environment. The high prevalence of alcohol-related issues and a lack of support provided in managing this stress were also described:

Loads of fellas were sacked. On one particular occasion there was four fellas sacked over the same thing, drink related problems. And if they had had the help

and the support, they probably would have got out of it and probably would have led a much better life as well. There was never a support system for anybody who fell by the wayside, in any way, shape or form. Fellas really had to go out and do it themselves or just simply crack up, and a lot of fellas cracked up. (67 year-old retired from fire service 12 years)

The importance of support for personnel to prevent them falling ‘by the wayside’ was emphasised. This interviewee also referred to the possibility of marital breakup and reduced QoL for children as a result of the stress experienced by emergency personnel in the job. Once again, this indicates the ripple effect of the stress of the occupation and the need for appropriate forms of support for staff. One interviewee described retirement as a release from the stress of the job and as a result, a new start in life: “*You nearly got a new life. There was a whole new plan for you. And you opened the page and this is page one; you’re starting all over again. You’re starting all over again and you’ve no restrictions.*” (63 year-old retired from fire service 9 years)

The methods used by participants to manage job-related stress included: channelling energies into the job; focusing on continuing education; voicing concerns; and some reliance on alcohol. Illustrative quotations relating to these stress management techniques are provided below:

I probably get down on it but I wouldn’t get down on it enough to say ‘that’s it, good luck and good bye.’ I think there’s better ways [laughs], go down and have a few pints and talk to the lads or something...I just moan for a bit and say right, get on with it [laughs]. (67 year-old retired from ambulance service 3 years)

It’s a funny thing because when I was in the [organisation] I was probably dealing with it in a physical way in the firefighting, in the training. Or maybe even my aggression in trying to get things right was a way of dealing with it...Anyway, that was probably a way of dealing with the stress and all that energy was channelled, had an outlet. (67 year-old retired from fire service 12 years)

Half of the interviewees referred to the macho culture within the emergency services more generally and perceived this to be a significant barrier to the pursuit of (and perhaps provision of) support for many staff despite the generally high levels of stress

and trauma experienced as part of their occupational role (see Box 7.8). This macho image among emergency service personnel has been identified across the literature (e.g. Evans, Pistrang & Billings, 2013; Gallagher & McGilloway, 2009; James & Wright, 1991; Moran & Colless, 1995). Interestingly, it was also linked here to the uniform and how wearing this uniform transforms the individual into someone who cannot show weakness or seek support.

Box 7.8: Illustrative quotes relating to macho image

“It’d be worth your while to find out what support systems are there, if any, for somebody who has had a bit of a breakdown or who has a problem with alcohol...men are men... You’ve seen enough of the fire brigade to know that it’s a macho job. I mean they have this annual calendar now which probably says it all; these muscle bound fellas in their uniforms. But it is a macho job. Nobody likes to think I’ve a weakness, there’s something wrong with me. Fellas would actually disguise it and suppress it.” **(67 year-old retired from fire service 12 years)**

“There was this thing that people ‘Ah no, I’m not going to tell them.’” **(63 year-old retired from fire service 9 years)**

“I feel personally if a highly stressful traumatic event comes up, it (support) should be mandatory, absolutely mandatory. Even if you’re only sitting there ‘I want nothing to do with this, I’m too macho’ or whatever... I was always thinking that there had to be some kind of counselling, to talk it out of your system. Thanks be to God there is now but you have to look to go for counselling which for very many lads, it’s a big step.” **(67 year-old retired from ambulance service 4 years)**

“I always believed, and it happened to me when I joined it as well, when people put a uniform on them it was like a macho image; nothing can affect me...because the public looked on you as being able to handle this; and it’s not always the case...These young people don’t want to feel that they’re not man enough or woman enough for to handle that... You get young people, and you get the macho image. You get the same thing with...anyone that wears a uniform. I’m a firm believer in the effect of the uniform.” **(63 year-old retired from ambulance service 1 year)**

7.3 Summary of Key Findings

Retirement as a major life change

- A ‘crisis’ period was identified involving loss of support and friendship, identity, and a struggle with perceptions; the importance of pre-retirement information was emphasised.
- An adjustment period was identified whereby retirees evolve to cope with retirement, with a number of important factors emphasised: keeping busy; hobbies; support and information; gradual retirement; shift in thinking; and retirement planning.
- The ripple effect of retirement for family life (e.g. changes in domestic life) was outlined.
- Finance as an important factor in retirement decision as well as a moderator of QoL in retirement was highlighted.
- The importance of family in retirement (including familial support) was emphasised and linked to QoL.
- Grandchildren were highlighted as being an important part of life as a retiree.
- The importance of the spousal relationship was emphasised.

Impact of working role

- The impact of the job included sacrificing family life and negatively impacting the spousal relationship.
- There was a widespread acknowledgement of the impact of the job on health, both when employed and into retirement, as well as the job becoming more difficult with age.

- The difficulty in ‘letting go’ of the job once retired, was evident amongst some retirees who reported that they missed the job, that the job had continued in their family in some cases, with a high level of contact with retirees, and an overwhelming desire to retain a link with the organisation.
- Interviewees expressed generally positive views about retirement itself, and also about life in general.
- The freedom of retirement was emphasised as a particularly enjoyable aspect and lay in stark contrast to the restrictions of life in the emergency services.

Prior commitment to the job

- Interviewees displayed a generally high level of commitment to their previous occupational role and had dedicated a large portion of their lives to the job.
- A general enjoyment of the job emerged among interviewees who alluded to job satisfaction and its links with health. Helping others, the variety of the job and the high adrenaline nature of the job emerged as enjoyable aspects of the occupational role.
- The strength and benefits of relationships between colleagues were also highlighted.

Health and ageing

- The importance of health was emphasised and this encompassed a number of factors: the importance of own health as well as family’s health; importance of fitness; importance of mental health; importance of monitoring health (pre- and post- retirement); and a fear of ill health.

- An acute awareness of ageing was evident in most interviewees including a reflection on their own mortality, with some demonstrating a conflict in the ageing process (e.g. feeling younger in mind than in body).

Trauma

- Many interviewees discussed their personal experience of trauma and some referred to the unpleasant nature of trauma exposure and an enjoyment of the freedom from trauma in retirement.
- Most spoke about the impact of trauma when working and its long-term impact and the concomitant need for support, were clear in some interviewees.
- Trauma management strategies discussed included: acclimatisation; reward balancing trauma; black humour; leaving trauma in work; and speaking to others.

Insular nature of emergency services

- The unique nature of the emergency service role was highlighted including: the demanding nature of job; the distinction between shift workers and normal workers; and a perceived lack of understanding from others.
- The stress of the role was also highlighted and this included a number of issues: the unavoidable stress of the job; the overall impact of stress; stress management techniques; and the generally macho 'culture' within the emergency services.

CHAPTER EIGHT: RESULTS STAGE THREE CASE STUDIES

This chapter outlines two case-studies based on participants who were interviewed during Stage Three. These are designed to supplement the primary Stage Three findings and were included in order to better understand the factors associated with lower levels of QoL in retirement. The qualitative analysis in the previous chapter examined the experiences of those with *good* QoL in retirement, and the factors associated with this. The two participants here were selected based on the scores they obtained on the WHOQOL-BREF. This was considered important in the context of the current study in order to explore similarities and differences between those with good and poor QoL in retirement and the factors associated with these differences.

8.1 Case Study One

8.1.1 Participant profile from Stage Two data

John (pseudonym), age 65, was retired from the position of station officer with the fire service for 3 years and 2 months, after serving 40 years in the organisation. He was married with 3 children and 6 grandchildren. According to his responses on the Stage Two questionnaire, he experienced high levels of job satisfaction in his occupational role. He described his move to retirement as phased/gradual rather than sudden, and gave his reason for retirement as reaching retirement age. In his retirement, John attended a fire service retired members association, and did not participate in part-time or voluntary work. He received a regular income which he felt was sufficient to meet his needs.

John described himself as ‘very resilient’. He did not smoke but consumed alcohol; however he did not demonstrate any signs of alcohol dependency according to his responses on the CAGE. He demonstrated high levels of functional social support (i.e.

as much support as needed across all questions). The most difficult incident which John had to manage as part of his professional experience was the accidental hanging of a two-year-old boy. This incident occurred 35 years previously. However, he demonstrated no symptoms of post-traumatic stress as a result. John rated his QoL as 'poor' for the previous four weeks and reported that he was 'very dissatisfied' with his health. He reported that he 'seldom' experienced negative feelings such as blue mood, despair, anxiety or depression, suggesting that physical rather than mental health was impacting his overall QoL. John's total QoL score was very low (284.23).

8.1.2 Interview findings

John's experience of retiring from the fire service was not a positive one. His dissatisfaction with recent changes in the job, his more office-based role in later years, and a dramatic change to the pension structure, had all contributed to his decision to retire. This suggests that John's response to his reason for retirement in the Stage Two questionnaire was limited by the number of responses options available. John felt rushed and ill-prepared for retirement and consequently retirement was a shock for him. John indicated a strong desire to remain in the job for longer and this lack of readiness for retirement was associated with considerable difficulty in his adjustment to retirement.

John's initial 'honeymoon' phase of retirement involved a lot of DIY and restoration projects in his home, as well as a number of holidays. This initial phase of retirement was a very busy one and during this phase, John had paid little attention to his health as he was pre-occupied with other activities. This 'honeymoon' period included some features of denial and avoidance of reality whereby John avoiding thinking about his ill health and focusing on activity. This period was subsequently followed by a 'crisis' period, perhaps as a result of John having more time to reflect upon his health, his

circumstances, and his retirement. John's 'crisis' appeared to be a key contributor to his reduced QoL in retirement, and was a key theme in the analysis. Some of the features of this 'crisis' period included: missing the regularity of the job; lack of purpose; sense of feeling lost; feeling of uncertainty; struggle with inability to predict plans; loss of motivation; desire to escape; and missing camaraderie and friendship of the job. John's experience of this phase of retirement was evidently a very difficult one, and he described how he "*had to keep going*" when working, and now feeling as if life is collapsing around him in retirement (see Box 8.1).

Box 8.1: Illustrative quotes for John's 'crisis' period

"I miss the camaraderie and the companionship and I miss the regularity of life in getting up and going to work and all the rest."

"I don't have a purpose anymore. Especially in this weather, nothing would motivate you to go out, you'd sooner stay in bed and read a book."

"The first two years after I retired I was doing a lot of work on the house, getting things straightened out, stuff that I had been putting on the long finger for years. So I've got all that sorted now so there's nothing left to do really [laughs]."

"I just wouldn't be able to walk for an hour or two. But she's (wife) the same. But she keeps going. She'll push herself."

John demonstrated a desire for structure and routine in his life. For example, he outlined that he planned to participate in a swimming competition in the coming months and stated "*I'm going to have to go in and structure myself a training programme*", indicating a preference for his life to feel predictable and planned, as when he was working. He also indicated that he planned to take up music lessons to "*give me something to do and take up more of my spare time. If I do learn to play it I can spend an hour or two a few times a week thinking about knocking out a few tunes.*" This suggests the possibility of some degree of 'institutionalisation' as a result of his former employment as John's experience of life in retirement without a set structure or rota appears to have left him feeling a little lost. It would seem that time weighed heavily on

John with concerns of having too much time to fill as he demonstrated numerous attempts to fill time; *“Maybe I think I’m relaxing too much because I’m starting to put the weight on.”* It was evident that John felt quite overwhelmed in this ‘crisis’ stage and consequently thought very little about his plans for the future and his long-term retirement; he was also too consumed by activity in the ‘honeymoon’ phase to consider this. He indicated though, at the end of the interview, that he would have to think about his future: *“I didn’t have time to reflect on the future; where I am now or where I’m going. That’s what I’m going to have to start thinking about now; what am I going to do.”* Indeed, it did seem that John had benefitted from the interview experience and this is consistent with the literature which suggests therapeutic effects of taking part in this kind of research (e.g. Dyregrov, Dyregrov & Raundalen, 2000; Riches & Dawson, 1996; Runeson & Beskow, 1991).

The ‘crisis’ period apparent in John’s life was also characterised by an apparent ‘clinging on’ to the job. When discussing the regularity and routine of the rota worked in the job, John took a copy of the previous year’s rota from his wallet and showed it to the researcher. Being in possession of a rota relevant to a time period after he had retired from the organisation, as well as retaining this rota in such a primary place in his life as his wallet, demonstrates that it was difficult for John to let go of this aspect of working life. Importantly, he also used the present tense when discussing the rota: *“That just keeps rolling on and rolling on, year after year after year without change. That’s how fixed it is, and you know exactly where you are.”* Use of the present tense here suggests that John was still identifying himself as member of the emergency services and had not yet adjusted to retired life or fully accepted retirement as his next life stage. Similarly, he also expressed satisfaction and comfort when he reported that staff currently within the job had expressed a desire to have him back at work.

In his 'crisis' phase of retirement, John experienced a realisation of his ill health as a result of arthritis. His ill health appeared to be a key contributory factor to his reduced QoL in retirement and another key theme which emerged in the analysis. Whilst he had experienced arthritis in his later years of working and throughout the 'honeymoon' phase of retirement, it was only after this that the full impact of this health condition became clear:

I was fully committed for the first 18 months, the first two years when I retired; loads to do and there was loads going on and a couple of holidays in between. So even the pains and aches didn't bother me as much, although I did notice them getting worse. It's only since all those projects have finished that there's nothing happening now I realise just how bad it had gotten. And I didn't have so much time to think about it then as I do now.

John's experience of arthritis was a very negative one. He described a feeling that his body was collapsing and giving up on him since retiring; *"The one thing too is, since I retired, health wise, everything seems to be, my whole system seems to be collapsing... My body seems to be giving up on me since I retired."* Retirement more generally was identified as a time where there is an increased focus on health, when compared to working life. Difficulties in walking, poor grip, and digestive difficulties from arthritis medication, were just a small number of aspects of the arthritis experience identified by John as difficult to manage. His life was clearly very limited as a result of his arthritis (see Box 8.2) and he explicitly linked his reduced QoL to his arthritis, outlining that his QoL is not as good as it should be, and that he isn't enjoying life as much as possible because of this.

John's experience of the 'honeymoon' and 'crisis' stages of retirement were experiences which were also evident in the analysis of the primary Stage Three sample (n=10; Chapter Seven). The emphasis on health and the impact of ill health was also something which emerged in the primary sample. Other aspects of John's retirement which were

typically seen in the primary sample, included: the ripple effect of retirement; impact of the job on family life; a greater sense of freedom; an awareness of ageing; importance of good health; the demanding nature of the job; the unique nature of emergency service work; prior commitment to the job; positive collegial relationships; enjoyment of the job; a desire to retain a link with the organisation; and the importance of family.

Box 8.2: Illustrative quotes for physical health restrictions

“When your feet are paining you, you’re not inclined to get up and walk to give yourself more pain. You’re more inclined to put your feet up.”

“It’s restricting me in that I can’t get out as much or I’m not inclined to go out as much as I would. The more you probe into it, the more I think about it; that is having an effect on me now in that I’m not inclined to go out as much because of the mobility problem, the pain in the feet. I only go out now if I have to. My son will ring me up and say ‘do you want to go out for a pint?’ and whereas before I’d go at the drop of a hat because I love a pint, now I’m finding that...”

“It developed and it got 10 times worse than it was and for a while there it got to the stage that I was hardly able to walk at all.”

“It’s all coming back to it, if I didn’t have the arthritis or if I didn’t have it as bad I’d be out and about more. I’d be able to run around more. I’m staying more and more in the house and only go out when I have to.”

“The medication is giving me other problems. It’s affecting my stomach, the anti-inflammatories and I was getting bleeding from the stomach so I had to cut down on them a bit, go more for paracetamol rather than the anti-inflammatories and I juggle it around now.”

John outlined how his retirement had resulted in an adjustment for his spouse also, with changes in domestic life occurring, as well as some difficulties in the spousal relationship and the logistics of living in the home together on a day-to-day basis. It was clear that, for John, family life was impacted hugely by his working role and that family life revolved around the job. John outlined the restrictions of shiftwork and a sense of regret and guilt was evident when he discussed the sacrifices in his family life that he had experienced because of his commitment to his job. John’s sense of freedom in retirement included: freedom in how he spent his time; freedom from the gridlock of

going to work; enjoyment of free time; and a rekindling of childhood passions. His awareness of ageing included: a growing sense of the passage of time; the perceived impact of ageing on physical abilities; perceived linkage of old age with ill health; and thoughts about mortality. The importance of health was emphasised by John, which encompassed the importance of physical fitness.

There was a strong sense that John's life had been determined by, and developed around, his job: *"it gave me a great purpose in life which I'm kind of lacking now, that feeling. I don't have a purpose anymore."* As with a number of primary sample respondents, John expressed a desire to retain a link with the organisation and he indicated that he met other retirees regularly through his involvement in the retired members association. He was generally very positive about the association and its social benefits, although he did create some distance between himself and other retirees when he switched from using 'we' to 'they' when discussing retirees:

A lot of the retired members, we have a retirement club and we meet once a month...During the summer we organise a holiday somewhere. In September they'll organise a trip maybe to Ireland or England or Scotland. So they generally have two holidays a year.

John's highlighting of the importance of family included a strong emphasis on grandchildren (as in the primary sample) and he was very positive about his grandchildren and the time he spent with them. His life in retirement was now defined by his family rather than the job: *"mainly chauffeuring and babysitting is defining my life now [laughs]"*. His shift in priority and focus to his family in retirement was also evident when he outlined the changes which he made to his home in renovating it in his early stage of retirement to make it more family-friendly.

8.2 Case Study Two

8.2.1 Participant profile from Stage Two data⁷

Andrew (pseudonym), aged in his early 50s, retired from the ambulance service more than 2 years ago, after serving 26 years. He indicated that he was divorced/separated with four children and two grandchildren. According to his responses on the Stage Two questionnaire, he experienced moderate job satisfaction in his former emergency service role. He described his move to retirement as quite sudden rather than phased/gradual, and gave his reason for retirement as being unhappy in his job. In his retirement, Andrew did not attend any retirement clubs or meetings, and did not participate in part-time or voluntary work. He received a regular income, but did not feel this was sufficient to meet his needs.

Andrew described himself as ‘somewhat resilient’. He was a smoker (smoking on average 20 cigarettes per day) and regularly consumed alcohol to the point that he demonstrated signs of alcohol dependency on the CAGE. He also reported low levels of functional social support. The most difficult incident which Andrew had to manage as part of his personal experience was when he suffered two Myocardial Infarctions (MI). He showed symptoms of ‘full’ PTSD as a result of his most recent MI. Andrew rated his QoL as ‘very poor’ for the previous four weeks and reported that he was ‘dissatisfied’ with his health. He reported to ‘quite often’ experience negative feelings such as blue mood, despair, anxiety or depression. Perhaps unsurprisingly, Andrew’s total QoL score was very low (248.81).

⁷ Some details have been generalised to prevent participant identification and to protect confidentiality

8.2.2 Interview findings

Andrew's retirement was unplanned and not what he felt was a 'normal' retirement. He retired in a unique set of circumstances and stated *"I have a lot of negativity around my retirement."* Possible contributors to Andrew's poor QoL included: feeling retirement was forced upon him; struggling with perceptions; feeling isolated; and using alcohol as a coping mechanism.

Substantive evidence for a 'crisis' period for Andrew was evident throughout the interview, and he demonstrated significant levels of unhappiness in retirement. A sense of hopelessness emerged when he referred to his current satisfaction with life and his use of alcohol as a coping mechanism: *"My life was never like that, and to see it gradually getting worse and worse; gradually getting worse..."* Little positivity and optimism for the future were present during the interview and it was clear that Andrew was struggling with his current situation as he reflected back on life prior to retirement. It was suggested that, at no stage of retirement thus far, had Andrew felt positively about his situation and he stated that his retirement *"went wrong from the start off"* and that *"It's not working out, it's not working out for me."* He also emphasised the cumulative impact of stress which he said had been building up from the time he retired, and he also referred to the negative impact of stress on his health. He also expressed further concern for his future health. Strong feelings of unhappiness and sorrow were in evidence as Andrew discussed his situation whilst an overwhelming sense of loss was also apparent. Although Andrew demonstrated high levels of unhappiness and sorrow, he did not see himself as suffering from depression. He expressed a strong reluctance to be prescribed medication for depression or to have to resort to medication to manage his situation. His perception of a depressed person was someone who is treated with medication, and his own reluctance to take prescribed medication to help him manage

his feelings, (which he repeated a number of times), suggested that he may have been in denial of the fact that he was, in fact, suffering from depression.

It was explicitly stated by Andrew that his retirement was not occurring as he had imagined it would: *“Let me put it this way, I pictured it a lot different for when I was leaving the job. I pictured it totally different.”* His perception of retirement was as a happy time - a time for enjoying life, a time for family and friends and holidaying. However, he revealed that he could not be happy, nor could he focus on holidaying or spending time with family as other retirees do largely because of the way in which he left his job:

I often see people there from different organisations and they're retired. They're as bubbly and they're as happy about it. They've worked their life and they've had a good time but at the same time they go out and they've got things planned out; they go out on holidays and they've their family there and go visit them, they might be living abroad. That's not the way I'm thinking about things, you know and that's not that way I should be at this stage of my life. That's not the way I should be; being ate out of it and I am ate up with it, you know.

Andrew felt his circumstances were unique. He felt forced out of the organisation as he was not supported and was left feeling isolated after an incident which cannot be described here for reasons of confidentiality. Andrew emphasised that he had not planned to retire at this stage of his career and wanted to stay on in the job for a number of years: *“It was a service that was cut short for me. I would have enjoyed many more years in it, many more years in it.”* Andrew's repetition here underscores the degree to which he felt his career had been shortened through his forced early retirement and he reported a sense of injustice that he missed out on so much time in the job. His struggle with retiring in a situation which led to a high level of negativity towards the organisation and which contrasted sharply with his previous love of the job throughout his career - is suggested as another source of stress for Andrew: *“...is just hard to take, you know, it's very hard to take, very hard to take... I found myself in a situation where*

I was a young man, technically a young man at 49 years of age, out of a job that I loved, a career job.” His perception of retiring at such a young age reflected perhaps traditional societal norms around the timing of retirement and the appropriate age at which to retire. His use of the term ‘found myself’ perhaps reflects his feeling of being lost and adrift during this period of transition. Andrew emphasised here his enjoyment and love of the job and importantly, this contributed to his dissatisfaction largely to the fact that he had been forced to retire early. It was indicated on more than one occasion that his retirement was not planned and that he was “*caught on the hop*”, thereby demonstrating his feeling of unpreparedness. He reiterated, again and again, how he felt unsupported and isolated in leaving the job, and this appeared to be the central factor in contributing to his dissatisfaction with retirement and his overall poor QoL.

Andrew demonstrated strong feelings of resentment, anger and injustice in relation to his retirement experience and he described himself as being “stuck in a rut”. The incident that had led to his forced retirement had resulted in dissatisfaction with life and constant rumination on what had happened and how it had affected him:

The most important thing is it's in my life every day. There's not a day, not a day that I don't think about it, once, twice, three times a day. There's always something to remind me of it either around the house or something that I have.

The fact that items in Andrew's home and day-to-day life reminded him of this incident suggests that his home and possessions remain linked to the job, with his life remaining centred around the job.

Andrew's feelings around this incident and his anger at the injustice he felt, were impacting negatively on his retirement. He described his situation as “*festering*” in his mind, referring to the anger, bitterness and resentment which he experienced as a result of how events had transpired. He stated “*my retirement should not be focusing on something that has happened within the ambulance service*”, demonstrating a struggle

with the perception of how retirement *should be* versus how it is in reality. On numerous occasions Andrew referred to himself as being “*ate up*” with this incident, alluding to a sense of decay and the fact that his life satisfaction and QoL were being constantly eroded by this incident. For example, at one juncture he stated: “*I have to bring closure to this to get some semblance of normality in my life again.*” The desire for closure was referred to a large number of times throughout the conversation and represented a significant barrier to moving forward with, and enjoying, life. A key component of Andrew’s experience of crisis in retirement was his experience of feeling alone and abandoned. He suggested, for example, that the fact that his family were grown up when he retired had contributed, in part, to his poor QoL in retirement. He also suggested that his poor social life was not helping. At a number of junctures in the interview, Andrew sought understanding from the interviewer and demonstrated a desire for another person to understand and identify with his situation. His experience of feeling alone related to his personal life as well as his relationship with the organisation.

With regard to his personal life, Andrew was living on his own and this was a source of great unhappiness to him. His reluctance to seek support from others in his personal life was related to his view that anyone from outside the organisation would not understand his situation. He asked “*where do you go?*” conveying his experience of feeling lost, with no one to turn to, exacerbated by the feeling that others would not understand his experience. He demonstrated a reluctance to burden his family members with his situation or to seek help from a personal friend. This reluctance to burden others likely contributed to Andrew’s experience of isolation, and his feeling that “*I’ve got to pull myself out of it; I’ve got to pull myself out of this rut myself.*”

Andrew expressed dissatisfaction and was aggrieved with the absence of contact from management since retiring and felt cut off from the organisation: “*The auld saying in*

our job is you're only a number and you are only a number because once you're gone you're gone; nobody cares about you any more, you know. Nobody contacts you." His repeated emphasis on the lack of support and contact by the organisation illustrated the importance which he placed on this in relation to his satisfaction levels and QoL in retirement: *"I find the biggest disappointment is not one phone call since...to say 'How are you? How are you getting on? Is everything alright? Is there anything we can do for you?'"* He described this as a failure by the organisation, and his experience of feeling let down by the organisation to which he had dedicated so much of his life, was evident, as well as a deep sense of sorrow and low mood at this feeling of perceived abandonment: *"I find that very sad, very sad for an organisation that's supposed to be a caring organisation. And the auld saying is who cares about the carers and that's the reality of it for me."*

This crisis period also involved a difficulty, for Andrew, in moving on from the job. This related to a number of factors including: a retained interest in, and being informed about, the job and developments in the organisation since retiring; being reminded of the sacrifices he made for the job when he sees ambulances in day-to-day life; missing the job; the enjoyment of talking about the job; and a persevering connection with the job. Andrew also expressed concern on multiple occasions throughout the interview about his alcohol intake and his reliance on alcohol as a coping mechanism in dealing with the stress of his situation (see Box 8.3). He indicated that he had recently taken six months off alcohol in an attempt to improve his situation, but found that this was not effective and suggested that while he had more money and felt a little better while refraining from consuming alcohol, the underlying issue causing upset and dissatisfaction in his retirement remained.

Box 8.3: Illustrative quotes relating to Andrew's use of alcohol

"After I retired, I had no plans or anything else, I started drinking a lot. I was finding that my social life revolved around pubs."

"Whatever tools I have at the minute, that's what I'm using but albeit they're the wrong ones, like alcohol... I have my own coping mechanism. But for my own health and everything else it's just not the way to deal with it. I know that."

"It hasn't been easy from that end of it and I find myself battling with alcohol now and I find myself, I've good weeks and bad weeks."

"It's not like normal where you go out for a game or two of golf and you might go out for a pint and that'd be it and you'd go home; this is an escape for me if you know what I mean, an escape for a day to stop thinking about it. And then, you can see it there in the pub, the four of us would go out for the golf and one by one the three boys would go home and I'd stay on."

Andrew demonstrated a sense of resignation about his situation at a number of junctures throughout the interview. For example, he stated that *"you're just waiting for the next slap."* Regrettably, he also referred to himself as *"a lost cause"*, further illustrating his overwhelming sense of hopelessness about the future. Despite this, he referred to his tendency for optimism: *"I always have that kind of optimism that things will sort themselves out. But the times I think about it, it just kind of gets to me."* This partial contradiction perhaps suggests a struggle in dealing with the perceived hopelessness of the situation because of a prior tendency to look on the bright side of life and to solve problems as they arose in life.

Andrew's experience of the 'crisis' stage of retirement was an experience which also emerged in the analysis of the primary Stage Three qualitative sample. However, for Andrew, his 'crisis' stage was much more entrenched, intense and all-consuming than for others so, in that sense, he is an unusual case. Other aspects of Andrew's retirement which were more typical of the primary sample included: prior commitment to job; impact of the job on family life; importance of family; positive collegial relationships; desire to retain a link with the organisation; demanding nature of the job; unique nature

of emergency service work; sense of freedom; being a loner; and long-term impact of trauma.

In relation to Andrew's prior commitment to the job, he demonstrated a high level of dedication, including additional time as a member of the Union and various committees. This is well illustrated by the following: *"I always felt that while it was an occupation, the ambulance service was a totally different type of role for me. It was a vocation more than anything else."* However, as with many other Stage Three interviewees, this level of commitment to the job had led to sacrifices in family life and especially the significance of missing out when his children were young. Andrew referred to his family as keeping him *"sane"* through the 'crisis' of retirement and as a *"family nucleus"* alluding to the importance of his family as a source of life and energy, similar to the nucleus acting as the powerhouse in human cells. He stated that a focus on helping out his family had temporarily helped to pull him 'out of the rut' in which he found himself, whilst also helping him to rely less on alcohol for a period of time.

Andrew also discussed the powerful and positive relationships within the organisation which he described as being *"in a special family"*, conveying a strong collegiality among staff and also the sense of going through the 'ups and downs' of the emergency service experience together. He also showed an interest in both retaining a link with other retirees, as well as the organisation, and felt aggrieved that his only contact with the organisation, at the time of the interview, was with other retirees. The insular nature of the job, and the difficulty with regard to feeling misunderstood by others, was also highlighted. At the same time, he was enjoying aspects of the 'freedom' of the retirement by being able to do things and go places whenever he chose. He further outlined that he often enjoyed being on his own. Importantly, as with many other Stage Three interviewees, the long-term impact of trauma emerged and especially when

Andrew had more time to reflect on this, allowing it to “*fester inside you.*” He went on to refer to how he had re-experienced traumatic events which he had encountered in his career:

I go on a journey with my family, I would have flashbacks on them roads of incidents, unconsciously I would have. It would hit you, on the back of the road, I know somebody was killed there, I remember an accident here, houses that you've been at for different tragic events.

Andrew's case, therefore, demonstrates a number of factors associated with his lower QoL including, for example, his 'forced' retirement, perceived lack of support from the service, and his poor health.

CHAPTER NINE: DISCUSSION

This chapter provides a synthesis and critique of the results outlined in Chapters Five to Eight with results integrated across all stages, where possible, in order to comprehensively address the central research questions. The results are then examined in the context of the international literature and the strengths and limitations of the study explored. Suggestions for future research are also provided as well as recommendations and implications for the ambulance service and fire service in improving the retirement process and the transition to retirement for their employees. Where relevant, linkages are made with employees, retirees and the transition to retirement more generally, as well as specifically to emergency service personnel.

9.1 Synthesis of Key Findings

This section provides a synthesis of results which combines and triangulates the findings across the three stages of the study. Later sections of the chapter then examine these findings in the context of international literature. As outlined in Chapter One, the principal aims of this study were to: assess overall QoL and well-being of retired emergency service personnel; ascertain the possible long-term effects, on overall QoL, of working in the emergency services; to identify possible elderly care procedures for emergency service retirees (e.g. required support services); and to gather information on retirement policies and procedures for emergency service personnel. Figure 9.1 provides an overview of recurring themes across two or more stages of the study. Whilst some of these emerged as sub-themes in different stages of the study, their presence across multiple stages deemed them sufficiently relevant to be referred to as main themes here.

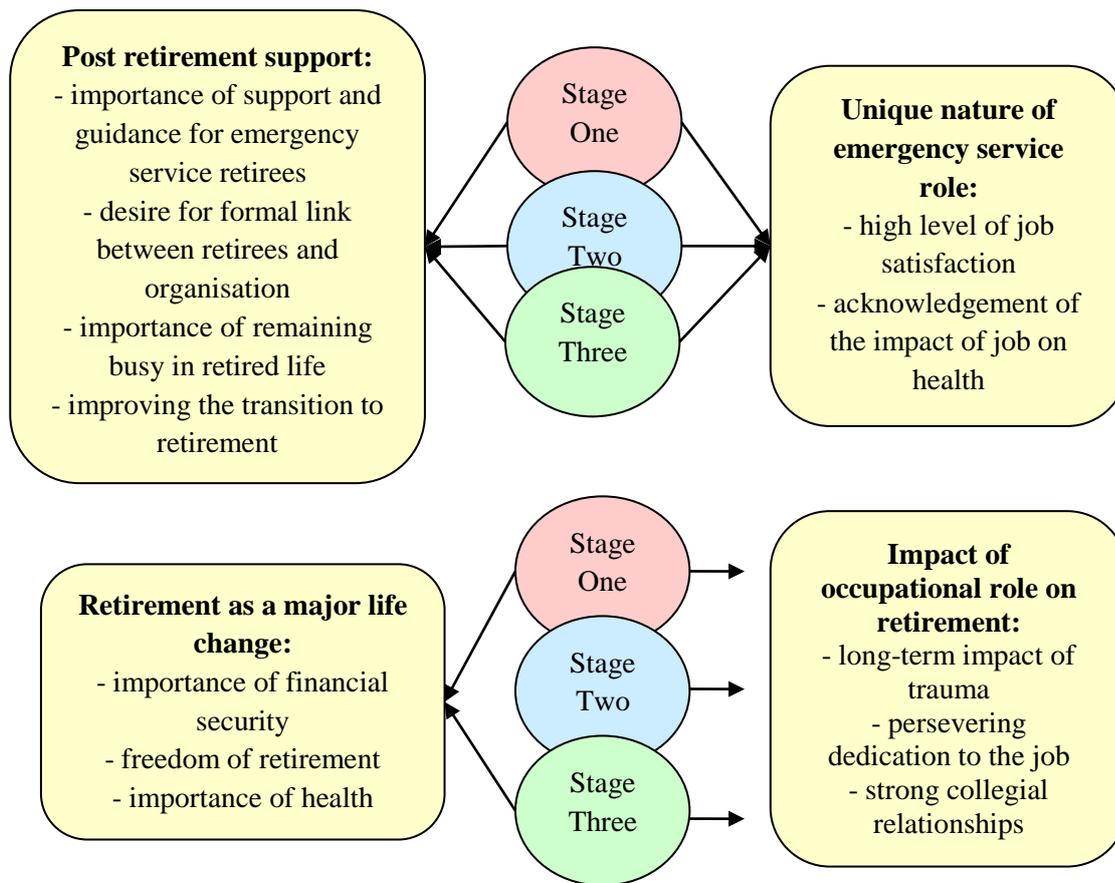


Figure 9.1: Recurring themes across study stages

9.1.1 Unique nature of emergency service role

The unique nature of the emergency service role was documented across all stages of the research. Stage One interviewees alluded to the often difficult and physically demanding nature of the role, with some suggesting that ambulance work was more difficult than firefighting. The unique nature of the work was also evident in Stage Two from the high level of trauma exposure and PTSD symptomatology amongst participants. For example, more than three times as many non-emergency as emergency retirees reported that there were *no incidents* which they found difficult to manage,

thereby indicating the considerable difference in trauma exposure between the two groups. Stage Three provided more detailed information on the unique nature of the emergency service role and the 'them vs us' culture of the service whereby the job is seen as different to others with high levels of stress, and with its own unique culture, including a high level of trauma exposure, a macho culture and a perceived lack of understanding from the public.

A high level of job satisfaction in the emergency services sub-sample was evident across all three stages of the study. Thus, participants expressed a current attachment to, and enjoyment of, their occupational role. For example, in Stage One, the social aspect of being in work was emphasised as very enjoyable whilst in Stage Two, 81% of the emergency sample rated their job satisfaction as high. Furthermore, in Stage Three, interviewees outlined a number of aspects of the job associated with high levels of enjoyment such as the variety of the work, helping others, and the 'high adrenaline' nature of the job. Job satisfaction was also strongly correlated with health status in Stage Three.

Unsurprisingly, the impact of working in the emergency services was acknowledged across all three stages of the research. In Stage One, this involved comments on the physically demanding nature of the job and the health implications of a career in the emergency services. In Stage Two, the emergency service retirees rated their satisfaction with health significantly lower than the comparison group, whilst in Stage Three, there was a widespread acknowledgement of the impact of the occupation on health, with reference to the potential longer term impact of the job on health into retirement, as well as references to the job becoming more difficult with advancing years.

9.1.2 Post-retirement support

The importance of support and guidance for retirees were highlighted across all three stages of the study. In Stage One, it was suggested that, for many people, retirement may bring a feeling of isolation, whilst support for retirees was highlighted as being of particular importance among Stage Three interviewees. For example, an analysis of Case Study Two showed that poor support was strongly associated with reduced QoL. Likewise, the Stage Two results demonstrated that functional social support was positively associated with QoL and negatively associated with PTSD symptoms; this again underlines the importance of providing appropriate, timely and effective support for retirees who have dedicated their lives to helping others. Collectively, these findings suggest a need to re-visit and revise current policies and procedures around retirement in both the ambulance and fire services (as discussed below in Section 9.6).

A desire for a formal link between retirees and their former employer also emerged across all three stages of the research. Stage One interviewees alluded to the benefits of retirees retaining a link with the organisation, but importantly, they highlighted the lack of a formal system in place and the difficulties for retirees in retaining a link. In Stage Two, a significant proportion of retirees reported attending a retirement club or meeting associated with their previous occupation, whilst most of the Stage Three interviewees also expressed a desire to retain a link with their former employer at least to some extent.

Interestingly, the importance of remaining busy in retired life emerged in all stages of the study. In Stage One, the importance of cultivating interests and hobbies prior to retirement which can be used to occupy time in retirement was highlighted, whilst in Stage Three, keeping busy and engaging in hobbies were emphasised as important ways of improving the adjustment from working life to retired life. Importantly, the Stage

Two findings also showed that those who were involved in part-time work, as well as those who were engaged in voluntary work, reported significantly better QoL, thereby underlining the importance of remaining busy and ‘filling time’ in retirement.

Notably, the need to improve the transition to retirement emerged across all stages of the study. Stage One interviewees suggested the implementation of a structured approach to retirement. There was a disparity in information around policies and procedures amongst Stage One interviewees, thereby further highlighting the need for a structured approach to retirement that incorporates the provision of pre-retirement information. Stage Two results showed QoL scores to be significantly lower for those whose retirement from the emergency services was quite sudden compared to those whose retirement was phased/gradual, which would suggest that an unstructured approach to retirement can have a potentially negative impact. In Stage Three, this was in evidence through interviewees’ emphasis on the importance of retirement planning, as well as the utility of a gradual retirement facility and the provision of information in advance of retirement.

9.1.3 Retirement as major life change

Retirement as a major life change was emphasised by Stage One, as well as Stage Three, interviewees. Notably, a large number of Stage Three interviewees outlined a ‘crisis’ period experienced as a result of the major life change of retirement and this commonly included: a loss of identity; a feeling of being in limbo; struggling with perceptions; and mourning for loss of the job. The sense of freedom associated with retirement was also discussed in both Stages One and Three. In Stage One, two interviewees reported that they looked forward to the freedom of retirement, whilst for Stage Three interviewees, freedom from the rota was a distinct benefit to retirement after a career of having their life and schedule dictated by the job. The importance of

financial security was also highlighted by both staff currently within the emergency services (Stage One) and retirees (Stage Three); finances had also played a significant role in the retirement decision.

The importance of health was also emphasised across both Stage One and Stage Three. In Stage One, the importance of health both in retirement as well as while in the job (including promoting health and well-being) was highlighted. Many Stage One interviewees alluded to the high levels of mortality among retirees. Stage Three interviewees' also mentioned: the importance of health of family members as well as one's own health; the importance of fitness; the need to attend to mental health as well as physical health; fear of ill health; and a need to monitor health and well-being. Importantly, the case study analysis in Stage Three identified poor health as a potentially significant contributor to reduced QoL in retirement and indeed, this has been shown to be generally the case in later years (as outlined in Chapter Three).

9.1.4 Impact of occupational role

The potential longer term impact of trauma experienced as part of their occupational role was reported by participants in Stages Two and Three. The Stage Two findings demonstrated that levels of PTSD symptoms were significantly higher in emergency service retirees, with difficult incidents having taken place, on average, 19 years previously and most of these being related to professional experience. The higher levels of QoL in the Stage Two comparison group point toward the potentially detrimental effects on overall QoL of working in the emergency services. The long-term impact of trauma was also described by Stage Three interviewees, with many outlining traumatic incidents that they had experienced in much detail, and some reporting powerful symptoms of PTS.

Despite possible negative implications of emergency service work, a persevering dedication to the job was evident in both Stage One and Stage Three. In Stage One, this related to reflecting on one's own retirement in light of moving away from the position of having the job as the centre of their life, whilst in Stage Three this was shown in various ways by interviewees (e.g. demonstrating that a large portion of life was dedicated to the job, often at the sacrifice of family life). Indeed, there was considerable evidence to illustrate the enduring collegial relationships across Stages One and Three of the research. This was in evidence in Stage One, for example, when interviewees discussed the contact which they continue with former colleagues on an informal basis because of the close relationships developed when working together. Informal supports for retirees organised by current staff (e.g. annual mass) further supports the strong collegial relationships reported in Stage One, as well as interviewees' reference to the loss of social contact which they associated with retirement. In Stage Three, interviewees alluded to missing their colleagues and referred to a loss of support and friendship in retirement. Strong collegial relationships were also reported at a number of other junctures in the Stage Three analysis and interviewees commonly retained contact with other retirees because of these strong relationships that they had built in working life.

9.2 The International Context

It is important to consider the above findings in the context of the international literature in order to: investigate what this study adds to the literature; explore contrasts and similarities between emergency service retirees and retirees more generally; and to assess the possible contribution of the study findings to theories of retirement. Overall, the Stage One findings fit well within the Stone and Deschênes (2003) model of 'transitions to retirement', which stipulates that the preparatory period for retirement

(transition) should be initiated earlier in the employment cycle of personnel. Key findings within Stage One consistent with this model, included: the importance of monitoring health across the career; the importance of retirement preparation and planning; and a suggestion to implement a structured approach to retirement. Importantly, these findings also suggest that this model could be extended to incorporate several factors that might help to improve the process of transition to retirement, such as health promotion and awareness, a sliding scale of hours in pre-retirement years, and more focused knowledge acquisition and planning (as further discussed below). Arguably, these factors, whilst identified in a sample of ‘high risk’ retirees, are also applicable to those who have retired more generally.

The study findings further emphasise the importance of retirement support and planning, and the need to expand or lengthen the transition to retirement. This suggestion is in line with, and supplements, the ‘transition to retirement’ model as conceptualised by Stone and Deschênes (2003), which describes retirement as more than simply a change in labour market activity to incorporate activities undertaken, steps made, or decisions taken. Typically, models of ‘transition to retirement’ relate specifically to the end of labour market participation (Stone & Deschênes, 2003) but key aspects of the transitional process may occur without a change of position in the labour market, including a phased retirement programme with reduced working hours, fewer working days, job sharing etc (Clark & Quinn, 2002). The current findings may be used to supplement the Stone and Deschênes (2003) model by proposing the inclusion of structured retirement planning information and support within the transition to retirement, such that it is significantly extended to include support and guidance across the mid-later part of the career. The findings also support the argument by Rich, Sampson and Fetherling (2000) that the ideal time to begin retirement planning is

during midlife or earlier, to allow ample time to consider appropriate options. This transition could also include the use of self-reliance, optimism, and a focus on the future as mechanisms for internal coping and adaptation (Ng and Law, 2013).

Unsurprisingly, retirement as a major life change was emphasised throughout the study. This is consistent with recent research which, for example, shows that the transition to retirement involves a certain level of stress and anxiety, although it is important to bear in mind that the impact of retirement varies across and within individuals over time (Wang, Henkens & van Solinge, 2011). The Stage Three findings highlighted the prominence of a 'crisis' period in the initial stage of retirement as a result of the major life change of retirement. Likewise, Black, McCabe and McConnell (2013), in a study of retired police officers, identified retirement as a trigger to current psychological difficulties. Nuttman-Shwartz (2004) conducted a longitudinal study of men pre- and post-retirement and found retirement as a period of uncertainty and crisis to be a common pre-retirement perception. However, it would appear in the current study, that this pre-retirement perception was not common among retirees, with little anticipation of the struggles which would face them in retirement. Financial issues were also repeatedly mentioned and it is perhaps not surprising that previous commentators have argued that the decision to retire affects an individual's economic well-being for the remainder of their life (e.g. McGarry, 2004). However, these issues assume an even greater significance in the context of the severe economic constraints in Ireland (and several other European countries) over the past number of years.

In line with the findings reported here, the second European QoL survey demonstrated the importance of traditional economic concerns (e.g. income and unemployment), in relation to peoples' perceptions of QoL (i.e. subjective well-being) (Watson, Pichler, & Wallace, 2010). At an individual level, deprivation (the inability to afford basic goods)

has the biggest impact on life satisfaction (Watson et al., 2010), after which ill health has the second biggest impact in terms of negatively affecting levels of happiness and emotional well-being (Watson et al., 2010). Other important factors in life satisfaction were: unemployment and income; low education; and family structure (Watson et al., 2010). Similarly, results of the Third European QoL survey (Eurofound, 2012) highlight that family continues to play an important role as the basis of social contact as well as a primary source of support in meeting both daily and urgent needs. Therefore, the factors associated with high QoL in the current study support those reported in the European literature, with these patterns applicable to retirees more generally and not only emergency service retirees.

A key theme in Stage One related to concerns about the appropriate age at which to retire and the suitability of the retirement age cut-offs within each service. For example, the potential impact of emergency service work on health and the ability to continue in a very physical role in later years was highlighted. Conversely, other Stage One participants viewed their potential contribution following 65 years very positively; this concurs with recent research which suggests that the challenge of the ageing workforce may be mediated by encouraging retirees to return to work (Armstrong-Stassen, 2008). Likewise, previous research has suggested that age is an irrelevant criterion for retirement (Settersten, 1998). For example, Gamble et al. (1991) found that in a simple work-related task (involving walking at 6 km/h), 54% of over 40s, and a surprising 24% of those under 40, found it difficult, thereby demonstrating that functional capacity, rather than age, may be more beneficial in the recruitment, and retirement age, of ambulance personnel. This is quite a complex issue because older workers may feel pressure in regard to retirement as a result of workplace and societal norms rather than their age *per se* (Settersen and Hagestad, 1996). Indeed, struggling with perceptions

and stereotypes of what retirement means was common among Stage Three interviewees. Thus, the findings suggest that a more flexible approach to retirement and cessation of employment is required - consistent with Stone and Deschênes' (2003) model of transitions to retirement. The issue of retirement age here is also applicable to workers more generally.

The issue of retirement age in the current study was linked, not only to the importance of health screening, but also to the need to promote a healthier lifestyle (and health awareness), as well as the importance of health in retirement for QoL and well-being. Similarly, recent research on retirement and health suggests that an individual's health significantly affects their decision to retire (Schirle, 2010; Wang & Shultz, 2010), and perhaps even more so than financial factors (McGarry, 2004). Crucially, poor mental, as well as physical health, has also been shown to predict workforce departure and early retirement (Olesen, Butterworth & Rodgers, 2012) with, for example, workers reporting depressive symptoms or impaired physical mobility and an increased risk of early transition out of work (Rice, Lang, Henley & Melzer, 2011). Thus, the small pool of international studies in this field emphasises the importance of health in both retirement planning and the lead-up to retirement (Rosenkoetter & Garris, 1998). According to Pond, Stephens and Alpass (2010), health plays a major role in an individual's decision to retire in a number of key ways. For example, individuals may decide to retire whilst healthy to fulfil other life goals. More generally, ill health may negatively affect an individual's psychological well-being, change their attitude towards life goals, and affect major life-changing decisions (Bhatti, Salek & Finlay, 2013). Thus, the importance of health in retirement remains a key consideration for organisations throughout employees' careers. Significantly, this emphasis on health in the current

study findings builds upon the transitions to retirement model in terms of identifying potentially relevant factors such as health promotion and awareness.

A structured approach to retirement was recommended in the current study, in order to improve the transition to retirement. Importantly, the notion of a sliding scale of hours was viewed positively by many Stage One participants. The notion of a sliding scale has been identified elsewhere (Mallier & Shafto, 1994; Bouffartique & Bouteiller, 2006) as providing a ‘wind down’ period or reduced hours during the final years of employment to help personnel adjust to retirement. Notably however, gradual retirement is not very commonplace and there are often pension-related reasons that militate against ‘winding down’ so this is an area that requires further exploration and investigation. Despite this, early retirement due to illness and overly demanding or stressful occupational roles may be prevented or reduced through the implementation of reduced working hours or tasks, or the transfer of employees to another occupational role which would militate against stress and/or illness (Fahey & Russell, 2001). Therefore, the implementation of a gradual retirement process warrants further research.

The importance of pre-retirement preparation and planning was also highlighted, particularly in relation to the provision of effective preparation and support for employees. The suggestion that information on courses should be disseminated at an earlier stage in employees’ careers rather than in the final weeks of employment - including at induction or mid-way through their career - implies that the transitions to retirement model could be extended to incorporate improved information in the pre-retirement years. International research demonstrates that formal retirement planning, such as pre-retirement courses, seminars and information, leads to increased levels of adjustment in retirement across a range of occupational settings (Wang & Shultz, 2010) and those who undertake the most effective retirement planning (i.e. including in-depth

dialogue with the self and others), are generally the most successful retirees (Rich et al., 2000); this finding is important in highlighting the ‘added’ value of retirement preparation and planning amongst emergency service (and other) personnel.

The importance of support for retirees was emphasised throughout this study and the benefits of a retirement association to allow personnel to network with fellow retirees, was also highlighted. In view of the importance of retirement as a major life change, the provision of support for retirees is of particular importance in facilitating successful adjustment to retirement, and enhancing overall QoL. Recent research has demonstrated that “feeling that somebody cares” is an important contribution to successful ageing (Reichstadt, Sengupta, Depp, Palinkas & Jeste, 2010), thereby emphasising the importance of formal supports for retirees. Indeed, Continuity Theory assumes that most retirees want retired life to be as similar to their previous life as possible (Parker, 1982). Thus, ageing adults tend to utilise strategies associated with their past experiences of themselves and their social world in an attempt to maintain existing internal and external structures (Atchley, 1989). Stage One interviewees had retained contact with retirees suggesting, in line with continuity theory (Parker, 1982), that coping with retirement is improved through a continuation of previous roles (e.g. through continued contact with former colleagues). Participating in a retired members association is also consistent with the central premise of this theory, in that this would allow retirees to maintain a strong sense of self and purpose when faced with the changes of ageing and retirement (Atchley, 1999). Some previous research has shown that older adults who participate in activities consistent with their possible selves (representations of what they would like to become; By Markus & Nurius, 1986) experience increased positive affect and reduced risk of mortality (Hoppmann, Gerstorf, Smith & Klumb, 2007).

Many retirees, across a number of occupational groups, opt to become volunteers and contribute towards others whilst unpaid work is common amongst retirees as they fulfil the “working” role in their lives (Lazarus & Lazarus, 2006). The current study found, in line with other research, that QoL was better for those engaged in voluntary work (e.g. McCrory, Leahy & McGarrigle, 2014). Hoyer and Roodin (2009) argue that voluntary work provides a number of health benefits including an increase in life space, satisfaction, well-being, and self-efficacy whilst Timonen, Kamiya, & Maty (2011) report that participating in voluntary work in later life predicts better health, activity, functioning, life satisfaction, and reduced depression, hypertension and mortality. Brenner and Shelley (1998) highlighted the importance of emphasising the value of voluntary work for retirees, as it can provide purpose and focus, as well as social contact. Therefore, the findings reported here are applicable to retirees more generally, and not specifically emergency service retirees or those retired from a ‘high risk’ occupation.

The English Longitudinal Study of Ageing (ELSA) reported that increased age was found to predict increased levels of loneliness and depressive symptoms and decreased QoL (Demakakos, McMunn, and Steptoe, 2010). In the current study, there was no significant relationship between QoL and increased age, although it was found that increased age was associated with reduced PTSD symptomatology, indicating a potential advantage to ageing in emergency service retirees. This, in some ways, contrasts with the ELSA findings which indicate a number of disadvantages of increased age. Other findings of the ELSA study suggest that a greater number of close relationships was associated with reduced depressive symptoms, as well as increased life satisfaction and QoL whilst the likelihood of persistent depressive symptoms reduced with the number of close personal relationships reported four years previously

(Demakakos et al., 2010). Similarly, the TILDA study in Ireland found that the greater the level of social integration, the better the QoL experienced (McCrory et al., 2014). Likewise, the current study, albeit based on a much smaller sample size than the above, found that functional social support was positively associated with QoL and provided a buffering effect to the impact of trauma with lower levels of PTSD symptomatology in those with greater social support.

Perceptions of retirement were an important issue in the current study and indeed, research has shown a significant correlation between people's expectations of retirement and a feeling of being happily retired (Rosenkoetter & Garris, 1998). The findings from Stage Three in the current study showed that some participants struggled with perceptions around retirement and ageing, in the sense that they did not wish to be perceived as a retiree by others; for example, one participant reported strong negative associations with retirement and became very emotional when speaking about this. Others struggled with the 'disconnect' between how they had perceived retirement and how it was in reality. Thus, it appeared that the traditional stereotypes of an older person and of a retiree had strongly affected the interviewees in terms of how they felt their retirement should be and how they should look, feel and act as a retiree or as an older person. Research has shown that older persons can often reflect an internalisation and acceptance of ageist stereotypes and prejudices (Minichiello, Browne & Kendig, 2000). Indeed, a number of interviewees in the current study demonstrated a fear of poor health and becoming incapacitated, alluding to the traditional stereotype of an older person as frail and ill. Again, this reflects the strong influence of stereotypes and prejudices around ageing and retirement in general.

9.3 The Unique Aspects of Emergency Services Work

The unique physically and emotionally demanding aspects of ambulance and fire service work were repeatedly emphasised in the current study, as was the elevated risk from emergency services work, of developing physical health problems. Likewise, recent research suggests that workers in more physically and psychologically demanding jobs (e.g. healthcare employees), are more likely to retire earlier (Wang & Shultz, 2010). Ambulance duties within the fire service were highlighted as being particularly demanding for fire service personnel and this is also reported in recent research on fire service personnel in Ireland (Herbert, 2013). Shiftwork was identified as one particular aspect of the job which becomes more difficult with age and whilst nightshift work has been found to be unpopular among more mature staff members generally (Loretto & White, 2006), it is a regular fact of life for emergency service workers and therefore merits greater consideration in this context.

Despite this, a high level of commitment to the work emerged from the current analysis as a potentially unique aspect of emergency services work and indeed, this has also been found in the literature (Keef & Harcourt, 2001). For example, Hansen, Rasmussen, Kyed, Nielsen and Anderson (2012) reported that ambulance personnel have higher levels of commitment to work than the general work force. Notably however, Grant and Hoover (1993) argue that commitment to the work is not as high in fire service personnel as it was in the past, when members were following a calling rather than choosing a career. Therefore, it might be worth conducting further research in the future to examine levels of commitment to the work in retirees to establish whether there is a reduced level of commitment in those who joined the emergency services more recently than in the present study.

In Stage Three of the present study, a change in domestic life as a result of retirement was prominent, with the husband commonly increasing his participation in domestic duties. Following on from this, two interviewees outlined some conflict which had occurred in the spousal relationship as a result of changes in domestic life in retirement. This is consistent with a small number of studies which have shown that that the majority of husbands increase participation in household tasks in retirement, with half of the wives studied, reporting feelings of intrusion on their activities as a result of their husbands' retirement (Vinick & Ekerdt, 1991). Gibbs (2008) also provides detailed insights into the changing husband-wife relationship in retirement, and outlined that whilst the relationship problems which emerge for retired partners (e.g. communication problems, difficulties in maintaining individual identities within the partnership, difficulties in dividing domestic duties etc) can occur in any relationship, they are more likely to relate to the distinct circumstances of retirement (e.g. more disposable time and finding new routines). Interestingly, whilst these kinds of issues also relate to retirees more generally, they are arguably greater for emergency service retirees in view of the nature of emergency service work and the dedication to the job generally seen amongst employees, as well as the shiftwork aspects of their former role.

Conversely, Rosenkoetter and Garris (1998) found that that the majority of retirees (71%), most of whom were retired labourers or skilled trade workers, agreed that their marriage was more satisfying following retirement. Thus, it would appear that the dynamic of the husband-wife relationship in retirement varies depending on the nature of previous employment as this seems to impact upon time spent together previously and how the husband-wife relationship operated prior to retirement. The impact of the job on family life more broadly, as well as the spousal relationship in particular, was reported in the Stage Three findings. Here, interviewees referred to getting to "re-know"

their children and alluded to spending time with their grandchildren in retirement as another chance at rearing children. This reflects the sacrifice in family life as a result of commitment to the job in working life. Indeed, the sacrifice in family life is explicitly referred to by interviewees. This relates to the perceived restrictions of shiftwork and the large proportion of time given to the job. Interestingly, research has demonstrated that perceived job flexibility is linked to improved work-family balance (Hill, Hawkins, Ferris & Weitzman, 2001). Evidently, retirees perceived themselves as having had very little job flexibility due to the constraints of the work rota, and as a result, experienced sacrifices and negative outcomes in family life. Recent research in the area of work-family balance has found that the extent to which work interferes with family life has a significant negative association with an individual's emotional reaction to their job (Zhao, Qu & Ghiselli, 2011), and that those with less work-family conflict tend to carry positive aspects from daily life to the workplace (Qu & Zhao, 2012). Therefore, the significance of the impact of work life on family life for emergency personnel should not be under-stated.

Close collegial relationships during working life, and beyond, was one of the key findings of the current study and this is consistent with previous research on emergency service personnel. For example, Hill and Brunsden (2009) reported that members of a fire service 'watch' (co-worker teams) had very close relationships and could rely on each other for support following an incident. Importantly, such camaraderie has been found to serve a protective function for psychological health (Herbert, 2013; Tuckey & Hayward, 2011). In the current study, very often these relationships served an important purpose for retirees in the extent to which they felt able to identify with others and had social contact. Notably, a number of retirees reported that they missed their colleagues, thereby underlining, in particular, the impact of retirement on friendships and

relationships for emergency service personnel. Interestingly, a significant proportion of Stage Three interviewees also demonstrated 'loner' characteristics and indeed, a number explicitly described themselves as a loner, indicating a preference for spending time alone and enjoying one's own company. This tendency amongst some participants in the current study (especially in Stage Three) to engage in solitary activities and to spend time away from others is consistent with 'disengagement theory' (Cumming and Henry, 1961) which argues that retirement from work begins with social isolation, illness and a decline in happiness. The suggestion (in Stage One) that some retirees may not wish to have any organisational contact post-retirement also supports disengagement theory; disengagement refers to an inevitable process in which the relationships between the individual and society are either severed or altered in quality (Cumming & Henry, 1961).

According to the literature (e.g. Mitchell and Bray, 1990), emergency service personnel have a different personality type from those working in other occupations; they often have very high personal standards, pride themselves on a perfect job, and become quite frustrated in the face of failure. Furthermore, a large body of work conducted during the 1980s and 1990s has shown that the personalities of ambulance, fire and law enforcement personnel are quite similar (as are their reactions to traumatic events). One of the features of incidents which commonly caused distress in participants in the current study, as observed in the Stage Two findings, was any incident in which the individual felt helpless. This is consistent with the argument that emergency personnel find it difficult to deal with failure. In the current study, Stage Three interviewees also commonly demonstrated a preference for being busy. This is a valuable trait amongst retirees as participation in leisure activities is linked to better physical and mental health outcomes and reduced mortality (Timonen et al., 2011). Related to this was the

emphasis on cultivating hobbies and interests in retirement. This is in line with recent research in the area. For example, there are a number of benefits of leisure pursuits and hobbies for older adults, including successful ageing, increased engagement with life, and improved transition to retirement (Lu, 2011). The importance of activities and interests in relation to retirement and preferred retirement age has also been highlighted in the literature (Nicolaisen, Thorsen & Eriksen, 2012).

The fact that one in ten of the emergency group (in Stage Two) reported no difficulty in dealing with any incidents in their lives, suggests that a small minority were more resilient than their colleagues. Likewise, the fact that the great majority of the sample of emergency service retirees rated themselves as 'very resilient' is an important finding because resilience (along with other adaptive processes such as self-efficacy) is viewed as an important factor in successful ageing (Lamond et al., 2009). Previous research has also demonstrated that emergency personnel demonstrate higher levels of hardiness (Alexander & Klein, 2001), resilience (Gayton & Lovell, 2011) and psychological preparedness (Streb, Haller & Michael, 2014) than the general population. Other research on emergency personnel in Ireland has also reported that increased exposure to trauma was associated with an increased ability to manage and successfully overcome trauma exposure (Herbert, 2013). In the current study, higher levels of QoL were also associated with greater resiliency and this is in line with previous research which has shown a sizeable correlation between resilience and general health and well-being (Gayton & Lovell, 2011).

It is interesting to note that in Stage Two, resilience was higher among emergency service retirees when compared to their non-emergency service counterparts and yet the former also reported lower QoL and more severe PTSD symptoms. This may be interpreted in one of two ways. Perhaps a certain level of resiliency would, on the one

hand, prevent further, even lower levels of QoL and more severe PTSD symptoms from developing. However, on the other hand, it is possible that the 'culture' of emergency service work expects these personnel to present themselves as strong and invincible in the face of trauma, thereby accounting for the higher levels of self-reported resiliency in this study. This is an area in need of further research.

Significantly, difficult incidents reported by emergency personnel in Stage Two had taken place on average 19 years previously demonstrating the potential for Critical Incidents to remain with personnel long into their retirement from the emergency services. This is a very considerable length of time for trauma to have remained with participants, and in some cases, to have resulted in persistent symptoms of trauma more than two decades later. However, it is also important to consider the possible influence of the '*reminiscence bump*' in participants' recollection of the most difficult incident experienced. This is a term that is used to refer to the fact that memories from early life or for first-time events are more easily retrieved (Jansari & Parkin, 1996). Thus, it is likely that early career trauma was more easily recalled here when questioned about difficult incidents. It is not clear though if incidents were recalled simply because they were more easily retrieved or because they were more distressing. Nonetheless, the significance of early career incidents should not be minimised because they were commonly reported in the current study and were closely linked to post-traumatic symptomatology.

Incidents involving children were repeatedly noted as the most difficult incident to manage. Incidents where patients were known to the caregiver also led to considerable distress in a relatively large proportion of this group. Likewise, Declercq, Meganck, Deheegher, and Van Hoorde (2011) found that Critical Incidents related to the death or serious injury of children led to distress in 51% of emergency personnel who had

experienced such an incident, whilst incidents involving the death of a colleague led to distress in 56% of those who had experienced such an incident. Other studies have also identified incidents involving young or known victims as particularly distressing for emergency service personnel (e.g. De Soir et al., 2012; Mishra, Goebert, Char, Dukes & Ahmed, 2010).

PTSD symptoms examined as part of Stage Two were associated with a number of factors including: an emergency background; younger age; less time in retirement; and a shorter length of time since the traumatic incident. Some other studies have reported that the proportion of adults who experience frequent mental distress decreases as age increases, with older adults (60+ years) having the lowest rate of mental disorder of any age group (Segal, Honn Qualls & Smyer, 2011), and this is in line with the current study findings where reduced levels of PTSD symptomatology were evident in older participants. The results of the regression analysis in Chapter Six showed that total trauma symptomatology predicted almost one fifth of the variance in total QoL scores, which given the multi-dimensional nature of QoL, may be considered quite substantial.

Berger et al. (2012) reviewed 28 studies (N=20,000) of rescue personnel and found that the pooled prevalence of PTSD was 10% - much higher than in the general population (1.3-3.5%). The figures in the current study are comparable to the above, with a rate of PTSD symptomatology amongst the emergency group of almost twice that seen in the comparison sample (11% versus 6% respectively). Conversely, however, lower rates have been reported elsewhere. For example, Mishra et al. (2010) reported a prevalence of only 4% amongst emergency service personnel with clinical diagnostic criteria for PTSD. Pietrzak, Goldstein, Southwick, and Grant (2011) reported a lifetime prevalence of full and partial PTSD of 6.4% and 6.6% respectively in US adults (general population).

In the current study, the levels of PTSD symptoms in the emergency sample were similar to those found in *currently employed* emergency service personnel, although lower than levels reported in some other studies (e.g. 22% reported by Bennett, Williams, Page, Hood and Woollard, 2004). This demonstrates the potentially longer term residual impact of emergency services work and trauma exposure on those who have retired from the emergency services, thereby suggesting that a minority might be particularly vulnerable in this respect and may require additional support. This is explored further in Section 9.6.

As outlined above, the potential long-term impact of trauma exposure was evident across both Stage Two and Stage Three of the study. Whilst some retirees demonstrated high levels of resiliency and minimal impact of trauma exposure, others displayed a high level of PTSD symptomatology with a powerful recollection for specific traumatic incidents experienced. The ‘freedom’ of retirement was highlighted in both Stage One and Stage Three. According to Segal, Honn Qualls and Smyer (2011), the free time associated with retirement may allow memories which have been deeply buried for a number of years to resurface, and they highlight retirement as a time when it is common for older adults to bring unresolved traumas to the surface when free from the busy work schedule. This is of importance here due to the high level of trauma exposure among retirees (with reference to trauma remaining locked away in the mind while working), and the high level of free time in retirement.

Kim and Moen (2002) conducted a comparison of men within two years of making their retirement transition with men “continuously” retired (retired for more than a period of 2 years), and found while higher morale was associated with a more recent retirement, those “continuously” retired displayed greater depressive symptoms. By contrast the

current study did not find a relationship between length of time in retirement and total QoL. Significantly, it was found that increased length of time in retirement was associated with fewer PTSD symptoms, suggesting a positive impact of length of time in retirement for this particular group of emergency service retirees.

In summary, most of the study findings are supported in the international literature in relation to emergency service personnel (e.g. incidents which commonly result in symptoms of trauma), and other 'high risk' occupations (e.g. difficult nature of physically demanding job) as well as retirees more broadly (e.g. value of voluntary work in retirement). However, a small number of unique findings have also been highlighted as well as results which are not consistent with those reported elsewhere.

9.4 Study Strengths and Limitations

The current study is unique in that it addresses an important knowledge gap in exploring, for the first time, perceptions and procedures around retirement in a sample of emergency service personnel, as well as QoL following retirement amongst former emergency service personnel. The study also examined the potential long-term impact of prolonged trauma exposure on emergency service personnel in retirement. The study makes a significant contribution to the international literature with regard to how little is known about the effects of retirement on those who have dedicated their lives to helping others in the community, often in traumatic circumstances. Furthermore, research on population ageing highlights the importance of understanding the health, well-being, and the social and economic circumstances of older persons more generally (Marmot & Stafford, 2010) and the current study provides invaluable information on the experiences and well-being of an often neglected occupational subgroup. The study is also timely and topical in view of the increasing recognition of the important role of

emergency service personnel and the potential impact of trauma exposure on their overall QoL and well-being (e.g. Gallagher & McGilloway, 2007, 2009; Skogstad et al., 2013; Tuckey & Hayward, 2011). The findings should help to inform policies and procedures within the emergency services regarding support for personnel who are either close to retirement, or who have already retired. Importantly, most of the findings reported here may also apply to other ‘high risk’ occupations.

A key strength of this study was the use of a mixed methods approach; Stages One and Three utilised qualitative methods whilst Stage Two employed quantitative methods. Importantly, the findings from each of the three study stages were examined in isolation (as part of Chapters Five, Six, Seven and Eight) as well as integrated and triangulated (in Chapter Nine) to develop a broader picture. This integration of findings was valuable in terms of helping to identify and explore the key findings that emerged across all three stages of the study whilst also helping to address, at least in part, the limitations of any individual stage of the research. In addition, the Stage One sample was relatively small, but sufficiently diverse to represent the perspectives of each organisation and a mix of personnel therein, whilst also yielding useful and important insights which would not have emerged from, for example, a larger postal survey. Likewise, Cleary, Horsfall and Hayter (2014) argue that an experienced interviewer with a well-defined research topic and a small number of purposively selected homogenous interviewees can produce highly relevant information. The findings also have good conceptual generalisability across ‘high risk’ occupations, and are consistent with a number of relevant theories and models around retirement and the transition to retirement, whilst also highlighting ways in which some of those theories might be further developed or adapted for specific groups.

The COREQ Guidelines (Tong, Sainsbury & Craig, 2007) for conducting rigorous qualitative research were also closely followed throughout. Furthermore, the key themes identified, were common across the majority of interviewees, demonstrating good convergence and information saturation. The sample used in Stage Three was small, but deliberately so because this allowed for a rich and in-depth analysis (Smith, Flowers & Larkin, 2009). An additional benefit to the qualitative nature of two stages of this study, is that the research process itself can be of benefit to research participants by helping them to develop a greater understanding of themselves and their experience. Indeed, this was noted informally by a number of interviewees following completion of their interview. Arguably, the fact that both of the Stage Three case study participants were recently retired was a limitation of the current study. Selection of these case study participants required fulfilment of a number of criteria (including, importantly, volunteering to participate in this additional stage of the research). The selection of participants for purposes of an IPA, as outlined in Chapter Four, is designed to represent a particular perspective rather than a whole population and the Stage Three case studies were selected to represent the perspective of emergency service retirees with poor QoL, albeit limited to the initial years of retirement only. Case study two was an unusual example but was chosen because it reflects the negative impact of ‘forced’ retirement, attendant impact of a perceived lack of support from the service, as well as the harmful effects of alcohol, amongst other things.

In Stage Two, the cross-sectional nature of the study precluded any before-and-after comparisons or assessments of change over time. A more robust longitudinal design was not possible due to limited resources, but this would more easily have established causality (Lewin, 2012) and assessed changes over time (Gray, 2009). Participants also self-selected for study participation and no clinical assessment of PTSD was

undertaken. In addition, the study focused only on psychopathology, with little information on resilience whilst the assessments did not include anxiety, depression or substance misuse; however, the focus on PTSD was deemed a valuable starting point for exploration.

Arguably, the use of self-report measures is another limitation of this study, although research on older people has shown that self-ratings of health are significantly related to measures of objective health status and are, therefore, a more practical method of gaining information from this population (Ferraro, 1980). It has also been found that a person's own assessment of their general health is a strong predictor of future morbidity and mortality (Cronin, O'Regan & Kenny, 2011). Furthermore, as QoL is a subjective experience, it has been argued that it is best assessed by the individual (Skevington, 1999) whilst evidence has also shown that brief screening tools are a viable way of assessing PTSD/PTSD symptoms (Brewin et al., 2002). Overall, the study findings provide useful insights into the experiences and QoL of emergency service retirees and in so doing, provide a critical starting point for the exploration of the experiences, health and well-being, and QoL amongst an important, but neglected sub-group.

The high level of post-trauma symptoms in emergency service retirees is a key finding of this study. The Stage Two questionnaire did not investigate the level of support provided to participants at the time of the most difficult incident they experienced. Notably, this would be useful to explore in future research in order to establish possible links between post-incident support and long-term impact of trauma. The Critical Incident Stress Management services in place in the emergency services under investigation here, were established in the late 1990s, and as traumatic incidents had occurred, on average, 19 years previously, most of these incidents pre-dated the provision of crisis services within the organisation. However, as highlighted in the

current study, close collegial relationships were evident among participants and often seen as a source of support in times of crisis. Notably also, a high level of QoL was evident in the Stage Two sample, despite a low level of organisational support present at the time of traumatic incidents.

The participants in Stage Two (and therefore also in Stage Three) were predominantly married and research has consistently and reliably found a positive association between marriage and well-being across a number of different countries (Brough, O’Driscoll, Kalliath, Cooper & Poelmans, 2009; Watson et al., 2010). Arguably, it would have been more informative to have had a more diverse sample in this respect in order to investigate the relationship between marital status and QoL and well-being. For instance, the present study did not examine the cultural, ethnic or religious backgrounds of participants so these could be incorporated into future research.

Whilst Stage Two of the study included a matched comparison sample (for age and gender), the two groups were not comparable with respect to participation in shiftwork; almost all emergency service retirees reported undertaking shiftwork on a regular basis in their occupation (93%, 156/167) compared to 22% (31/139) of the non-emergency group. Numerous studies have demonstrated the negative impact of shiftwork on health and well-being (e.g. Knutsson, 2003; Paim et al., 2008; Sofianopoulus, Williams & Archer, 2012; and Sookoian et al., 2008) and this is something that could be addressed in future research.

9.5 Future Research

This study provides useful information on, amongst other things, the requirements for further training and support within emergency service occupations. Future research could consider the nature and extent of training required within emergency services to

provide timely, appropriate and effective psychosocial support systems and procedures prior to retirement and also to promote greater resilience in frontline personnel. Further research might also examine perceptions around retirement in a number of other occupational sub-groups as well as considering the nature and extent of change required within emergency services to improve health promotion across the career, to promote greater resiliency, and to improve the transition to retirement in the pre-retirement years.

It would also be useful, in future research, to examine the prevalence of other mental health problems in this population, such as anxiety and depression as it was not examined in the current study; other studies have found that an accumulation of trauma predicts depression and anxiety in older age (e.g. Dulin & Passmore, 2010). Another factor which would be beneficial to include in future research would be an investigation of the attrition rates (i.e. those who leave the job) within emergency services and whether these are associated in any way with trauma exposure and QoL. In the current study, retirees had spent an average of 31 years working within their organisation, suggesting that emergency service work might be viewed as a 'vocation' rather than an occupation. The high level of resiliency in the current study was associated with increased QoL and reduced trauma symptoms, and future research would be valuable in examining these factors in those who left the emergency services prior to retirement.

Pinquart and Schindler (2007) demonstrated that satisfaction in retirement can vary; therefore, it might be beneficial in the future, to examine the QoL and PTSD symptoms of emergency service retirees (and a matched comparison group) on a longitudinal basis from the moment of retirement (or just before) and through subsequent months and years in order to track any changes over time and to identify factors associated with such change. In the current study, QoL was associated with age, but only weakly so. In a study of older adults, Figueira, Figueira, Mello and Dantas (2008) found that in older

age, as age increases, QoL decreases. A longitudinal study of QoL of emergency service retirees would therefore be useful to establish whether the patterns in QoL found in the current study are consistent across retirement and over time. Similarly, Kleim and Westphal (2011) argue that longitudinal research on risk and resilience factors and their relationship to mental health outcomes in emergency personnel is required in order to further inform the develop of intervention and prevention programmes e.g. peer-to-peer support and post-incident defusing.

Gatz and Smyer (2001) argue that it is important to distinguish between three patterns of mental disorder in older adults: those who had a mental disorder early in life and maintained this into later life; those who experienced mental disorder for the first time in later life; and those who entered later life with a liability (e.g. life stress or genetic influence) which was exacerbated by the conditions of later life, thereby resulting in mental disorder. Therefore, it would be useful, in future research, to examine prior mental health and mental disorder amongst retirees when examining current levels of PTSD symptomatology. Other research has found that optimism, social support, and/or coping strategies contribute significantly to post-traumatic growth and post-trauma outcomes (Kirby, Shakespeare-Finch & Palk, 2011; Prati & Pietrantonio, 2009). It would be beneficial in future research to examine the impact of these variables on QoL in emergency service retirees. Prati and Pietrantonio (2009) argued that seeking social support may be distinct from receiving or perceiving social support. The current study measured only *perceived* social support and so it may be useful in future research to also measure the actual levels of social support sought and received.

An interesting finding in the current study was the change in domestic life and the spousal relationship as a result of retirement. The findings reported here merely 'scratch

the surface' of this issue within an altogether broader context, and thus it would be beneficial in future research to examine the husband-wife relationship in retirement in order to determine whether the dynamics of this vary, or are intrinsically different, from the husband-wife relationship in retirement in the general population.

9.6 Recommendations and Implications for Policy and Practice

This next section provides an overview of the primary recommendations and implications of the collective study findings. These relate principally to: (1) the need to improve the transition to retirement; and (2) the benefits of further developing current organisational policies in order to improve QoL in retirement. It is suggested that developing prevention and intervention strategies for emergency service personnel (e.g. post-incident support for early career incidents) is of vital importance based on the prevalence of negative mental health outcomes in this population (Kleim & Westphal, 2011). The current study was undertaken to explore a number of issues relating to retirement within 'high risk' occupations, namely emergency services. Importantly however, the findings presented here, have identified a number of key issues applicable to workers more generally, as well as emergency service and 'high risk' personnel.

A number of key themes emerged, some of which are consistent with previous research in the area, and some of which also advance our understanding of key issues. The findings should help to raise awareness amongst employers of the importance of providing appropriate, timely and effective retirement support and planning. The use of evidence in policy making is very important, particularly in policies relating to older people (Marmot & Stafford, 2010) and perhaps certain at risk groups of older retired people could be singled out for special attention in the national policy arena in Ireland. Indeed, a primary goal of the National Positive Ageing Strategy (2013) is to support and

utilise research on ageing and older people to inform policy responses to population ageing. The current study provides information on those retired from 'high risk' occupations and suggests, for example, that the transition to retirement could be extended for this occupational subgroup whilst this could also be integrated into future ageing strategies in Ireland.

The importance of support for retirees is a key finding here. Importantly, in the Stage One findings, all those currently employed within their service were not aware of any formal supports provided by their organisation, despite a general acknowledgement of the importance of such supports. These findings suggest that more efforts should be made to promote, advertise and advocate these supports amongst all personnel prior to retirement. As in other studies, (e.g. Danish and Usman (2010)), reward and recognition have a substantial impact on employee motivation and some recognition of those who are about to retire, was also identified in Stage One, particularly in view of the long service provided by many retirees throughout their careers and the nature of the kind of work that they do (or did). This has not been reported in previous research and has important implications in terms of the role of emergency service managers in responding appropriately and sensitively to employee expectations prior to retirement. Notably, it may be beneficial for mental health professionals to be more aware of an older person's occupation when providing support as the current study demonstrates the long-term impact of emergency service work as opposed to those retired from a non-emergency service background.

Research has demonstrated that when the transition to retirement is viewed as a forced or involuntary decision, there is an association with negative outcomes such as increased alcohol consumption; by contrast, this association is much weaker if levels of pre-retirement job satisfaction are high (Bacharach, Banberger, Biron & Horowitz-

Rozen, 2008). Likewise, in the current study, Stage Three interviewees displayed increased levels of dissatisfaction when they perceived retirement as 'pushed' or 'forced' upon them through, for example, changes in the pension structure for retirement. One Stage Three interviewee, for example, spoke in detail about his reliance on alcohol as a coping mechanism in managing a difficult severance from the job. Therefore, it is imperative, that emergency service organisations, and indeed employers more generally, are cognisant of the impact of forced retirement on personnel and implement measures to ensure that this is avoided where possible.

Unfortunately, stereotypes can strongly influence modern society. In Stage Three, a number of interviewees struggled with the ageing process (e.g. felt a different mental to physical age) or struggled with perceptions around ageing and retirement. Mitch (2006) argues that while there is little that can be done about ageing, there is a huge amount which can be done in relation to growing old; we can hold "old" at bay by focusing on successful ageing. A sense of mastery or self-reliance is important in retirement for retirees to be positive and productive, to believe in their own ability to control events and outcomes (Mitch, 2006). Indeed, the Stage Three findings demonstrated a high level of positivity among those with high levels of QoL. Thus, it might be beneficial for emergency service personnel (and the working population more generally), to be supported in developing a sense of mastery (e.g. through in-service training). It may be possible to integrate this into emergency service organisations in the form of resilience training which could be provided in conjunction with up-skilling and further education.

Another key finding reported here was the suggestion to implement a process of transition to retirement much earlier in working life and during which, appropriate preparation by both employers and employees (and colleagues) may be made with

respect to areas such as: health promotion and awareness; 'in-job' recognition of employee contribution; provision of information on retirement and ageing; cultivating interests outside the job; adopting, and being encouraged to adopt, a positive attitude towards retirement; and meeting the demands of the job over the life course. Indeed, the idea that health promotion for a long, active and healthy life should begin as early as possible, is widely accepted, with health promotion having an important role to play in improving health, well-being and QoL of older persons (Brenner & Shelley, 1998). This is, in part, because the young, or those in middle age, are more receptive to lifestyle change (Brenner & Shelley, 1998). Importantly, the inclusion of mental health in health promotion strategies is critical as the protection and promotion of mental health in old age is a major societal concern due to the association between good mental health and greater financial success, better social relationships, and less risk of physical illness (O'Regan, Cronin & Kenny, 2011).

Pre-retirement planning and preparation are emphasised throughout the findings. Such pre-retirement preparation could be incorporated into other training regimes (e.g. refresher training for manual handling, up-skilling etc) in order to improve the practical implementation of this kind of support within the organisation. It is also critical that employers ensure that their staff develop a positive attitude towards retirement through training and education and especially in view of evidence to suggest that unfavourable attitudes towards retirement are associated with absence of retirement planning and subsequent maladjustment to retirement (Kim & Moen, 2001). Importantly, research has found most suicides in police officers to occur in the five years prior to retirement eligibility, suggesting a period of decision anxiety amongst emergency personnel (Violanti, Gu, Charles, Fekedulegn, Andrew & Burchfiel, 2011); this further emphasises the need for a supportive pre-retirement environment. Additionally, occupational

support has been found to be associated with post-traumatic growth (Sattler et al., 2014), thereby further highlighting its importance.

As stated above, the suggestion to implement a structured approach to retirement is a key recommendation of this study. Such recommendations have also been identified elsewhere. For example, the American College of Emergency Physicians (ACEP) Board of Directors (2009) made a number of recommendations in order to enhance and prolong the careers of emergency physicians, to ensure patient safety, and to facilitate the transition of physicians to retirement. These recommendations include: physicians and physician groups being mindful of the limitations which may come with ageing; and implementation of workload modifications e.g. encourage older providers to work more day shifts on weekends in exchange for night shift assignments, consider scheduling additional time off for recovery after night shifts, shorten shifts to periods of eight to 10 hours or less, and schedule fewer consecutive shifts (ACEP, 2009). Models such as this could be considered by emergency, and other 'high risk' organisations in helping to improve the transition to retirement. Importantly, some of the recommendations here (e.g. implementation of work modifications) are consistent with the recommendations of the current study.

The 'ripple effect' of retirement on the spouse and on family life was also highlighted in the current study. Similarly, Nuttman-Shwartz (2007) argue that retirement is a family transition, and that family perceptions contribute to the post-retirement adjustment. In line with this, and to improve retiree acceptance of the retirement transition, it is suggested that pre-retirement interventions should focus on the family as a whole and not just on the retiree. The study findings here also emphasise the need to focus on the family and, in particular, the spousal relationship, as well as the individual retiree, in pre-retirement training and interventions. This is likely to be of considerable benefit for

retirement preparation and transition, not only for emergency service personnel, but for workers more generally. Importantly, research has highlighted the vulnerability of the families of emergency service personnel, in particular, for the transmission of stress and distress (e.g. dealing with the emergency workers emotional reactivity and withdrawal) (Regehr, 2005) and this was also alluded to in the current study, thereby further emphasising the need for consideration of the family in the support of emergency service personnel, both during and after their career.

The results reported here provide useful information for both the emergency services and other organisations in Ireland and elsewhere that should help to inform the further development and refinement of retirement policies and procedures and health promotion strategies, as well as facilitating a smooth transition to retirement - a major life event that, by and large, tends to be ignored by most. For example, current policies and procedures for emergency personnel in Ireland do not include support for personnel post-retirement and it would be useful to explore the benefits of further developing these policies in this regard. The findings also suggest that trauma should be dealt with before retirement, so it is important that these findings are also considered by emergency service organisations in the development and enhancement of their psychosocial support systems and policies (e.g. Critical Incident Stress Management; Everly & Mitchell, 1997). Importantly, employers also have a duty of care to protect their staff against the effects of stress and trauma (e.g. Deahl et al., 2000; Hobbs & Keane, 1996; MacEachern, Jindal-Snape & Jackson, 2011). It may also be beneficial, therefore, for emergency service organisations to implement mandatory support following incidents that have been identified as commonly causing distress or difficulties in personnel (e.g. early-career incidents and incidents involving children)

and indeed there is now a growing literature in this area (e.g. Alexander & Klein, 2001; Gallagher & McGilloway, 2007, 2009).

In relation to further development of policies and training, a need for additional emphasis on resiliency is also highlighted. In view of the high levels of resiliency evident in the Stage Two emergency group, it may be useful for emergency organisations to implement training to further foster resiliency in their personnel, to ensure that this develops in the early stages of their career and long before retirement, particularly in light of evidence that this may be acquired through completion of a brief training programme (Everly, Welzant & Jacobson, 2008). Arguably, this may be challenging as there is limited empirical data on factors which serve a protective function in this population (Kleim & Westphal, 2011). However some models, such as the Battlemind programme developed to build soldier resiliency through self confidence and mental toughness (Adler, Bliese, McGurk, Hoge & Castro, 2009), may be valuable here. Berger et al. (2012) suggest that pre-employment strategies be improved for emergency organisations in order to select the most resilient individuals. The current study also found, in line with other research, that QoL was better for those engaged in voluntary work. Therefore, emergency service organisations might consider encouraging participation in voluntary work for employees, both prior to, and within retirement and especially work that involves the application of their knowledge and skills.

The current study findings were mixed in relation to retirement age (and its appropriateness), but they suggest that it may be beneficial for emergency service organisations to adopt a more flexible approach toward their retirement criteria on the basis of physical capabilities rather than age *per se* and, accordingly, to implement perhaps some kind of screening procedures that will facilitate a more open and informed

approach to retirement. One of the suggestions in Stage One, was that personnel be given the option to remain in the job past retirement age. This extension to the contribution of older and more experienced personnel may prove to be of considerable benefit for emergency service organisations (e.g. through a re-assignment of their occupational role or as Peer Support Workers for other staff). For example, Hoyer and Roodin (2009) argue that older workers can improve productivity through their extensive experience and knowledge whilst research has also shown that participation in the labour force in older adults is often linked to higher level of resources and enhanced levels of life satisfaction (Mosca and Barrett, 2011). Furthermore, it has been suggested that pressure on public spending could be reduced by increasing employment rates among older persons (Marmot & Stafford, 2010). However, it would be necessary to consider this on a case-by-case basis in light of any potential impact on health.

The current study demonstrates the potentially long-term residual impact of emergency services work and trauma exposure on retirees and the findings suggest that a significant minority might be particularly vulnerable in this respect. Screening of all personnel in the pre-retirement period to identify those who may need special support in their retirement may be beneficial. Emergency service organisations could then implement the necessary services (e.g. counselling, guidance and retirement workshops) to help support employees who might be considered vulnerable in this respect. Research has demonstrated that younger age at trauma is a risk factor for the development of PTSD following exposure to trauma (King, Vogt & King, 2004). In the current study, traumatic incidents (Stage Two) had occurred, on average, 19 years previously and a number of Stage Three interviewees referred to the poignant impact of early career trauma. It may also be beneficial, therefore, for emergency organisations to implement increased support for personnel in the formative years of their career. Strategies found

to be helpful amongst emergency service personnel include social support, personal coping, and meaning making (Blaney, 2009).

The current study emphasises the need for the provision of appropriate, effective and timely support for emergency service personnel in retirement, and especially in the initial period of retirement, which for many occurs as a ‘crisis’ period. In an international study of guidelines for peer support in high risk organisations, a consensus view was found that *“all high-risk industries should have a well planned, integrated, and tailored peer support program for their current employees, as well as, for a limited time, once employment within the organisation ceases.”*(Creamer et al., 2012, p140).

Thus, the recommendation in the current study for post-retirement support for emergency service personnel is supported in the literature, further underlining its importance. It is critical that support services be provided at no/low cost, at least initially, as research has demonstrated that practical concerns such as the financial costs of treatment, are a significant barrier to accessing mental health services among older adults (Pepin, Segal & Coolidge, 2009). Therefore, supports could perhaps be provided at minimal cost to the retiree through, for example, a retired members association, and/or supports could be provided directly by the emergency organisation with costs covered by, or partially covered, by the organisation. This could be structured, for example, through provision of one-to-one support by the organisation for the initial ‘crisis’ period of retirement (as evidenced in the current study), or for a maximum of three sessions, with referral to private support services following this period.

9.7 Conclusion

Collectively, the findings in this study speak to some positive aspects of emergency service work, namely the rewarding and enjoyable nature of the work. There is

evidently a reason why these truly remarkable people had chosen to remain in the emergency services for up to 49 years. It is clear, however, that there are some aspects of the job which are much less rewarding and perhaps best forgotten as the opening quote in Chapter One suggests. Thus, emergency service personnel require (and should benefit from) appropriate support services and crisis prevention and intervention strategies at the time of any stressful or Critical Incident(s); otherwise, the experience of trauma may lead to a delayed trauma reactions later in life.

This study also examined current policies and procedures for retirement within the emergency services and a number of recommendations for future development in this regard were presented. Several recurring themes were identified which relate to both retirement as a major life event, and the need to improve the transition to retirement, as well as the unique nature of the emergency service role, and the importance of appropriate support and guidance for retirees. Clearly, life in the emergency services does indeed have the potential to negatively impact QoL with possible long-term effects (e.g. re-experiencing traumatic incidents encountered approximately two decades previously). The few studies, at present, around emergency service retirees suggests that more needs to be done to address their needs into retirement and to ensure that they can achieve a good QoL before, during and after retirement.

Importantly, a number of care procedures for emergency service retirees have been proposed here and hopefully this will be an important step in ensuring that emergency service retirees do not remain our 'forgotten helpers'. Some of the recommendations around the further development of retirement policies and procedures, also apply to workers more generally.

Arguably, research on emergency service mental health and predictors of trauma-related psychopathology is of critical importance in the development and implementation of appropriate prevention and intervention strategies (Kleim & Westphal, 2011) such as post-trauma defusing and peer-to-peer support. Accordingly, the findings here provide important information for emergency service organisations both in Ireland and elsewhere that should help to inform the development of policies and procedures on health and well-being, resiliency, and retirement. In sum, current policies and procedures for retirement within the emergency services require further development in order to improve the transition to retirement for personnel, as well as to improve satisfaction with retirement and QoL and well-being amongst retirees (as outlined above). Importantly, the findings are also relevant to a number of other ‘high risk’ occupations, as well as to retirees in general. Notably, the study findings have been disseminated, to date, through an international peer-reviewed publication (with another accepted for publication) and several presentations at a range of conferences (See Appendix 11). It is critical, though, that further research is undertaken in order to raise an awareness around the retirement experiences of such ‘high risk’ groups to try to ensure that those retired from the emergency services, in particular, do not remain our ‘forgotten helpers’.

A number of factors have been highlighted which influence QoL, well-being, and trauma symptoms in retirement including, for example: retirement background; participation in part-time and voluntary work; and a shorter length of time since experiencing a traumatic incident. The way in which personnel make the transition to retirement has also been discussed with important elements of this, such as preparation and support, emphasised. In conclusion, this study represents a valuable addition to a

very limited body of international evidence and is an important stepping stone to the development of future research in this area.

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APPENDICES

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Appendix 10	Guidance for Safe Working Practice in Psychological Research
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Appendix One – Stage One Cover Letter



Mairead Bracken
Department of Psychology
Room 24 Logic Annex
South Campus
NUI Maynooth
Co Kildare

22nd July 2011

Quality of Life in Retirement

Dear X,

Researchers at the Department of Psychology at NUI Maynooth have been commissioned to conduct an important national research study looking at quality of life in retired emergency service and non-emergency service personnel. This project aims to assess the views of retired individuals of their overall health and well being (or quality of life) in retirement. Ultimately, it is hoped that the results of this research will benefit all retired people in Ireland and it is important, therefore, that as many people as possible agree to take part.

The first part of the research involves a number of interviews with key informants from the ambulance and fire services. We would be extremely grateful if you would take part in one of these interviews. If you would like to participate, please complete the enclosed reply slip and return it with your signed consent form in the stamped addressed envelope provided to Mairéad Bracken. All information provided will be treated in strictest confidence and no names will be recorded at any time.

Again, everything you say will be totally confidential and your name will not be used at any time. If you have any queries about the study, or any of the above, please do not hesitate to contact Mairéad Bracken at 01 7084787, 087 9101583, or mairiad.bracken@nuim.ie.

We would be most grateful if you would complete the reply slip and return it with your signed consent form in the stamped addressed envelope within **two weeks** of receipt. Again, we would like to emphasise the importance of receiving feedback from as many key informants as possible in order that the study findings will be meaningful and more likely to ‘make a difference’. Therefore, we may follow up with a reminder phone call in about two weeks, if we have not received a response from you.

We look forward to hearing from you.

Many thanks for your help and co-operation.

Yours sincerely

Mairéad Bracken
Department of Psychology, Room 24 Logic Annex, South Campus,
NUI Maynooth, Co Kildare
Tel: 01 7084787 / 087 9101583
Email: mairead.bracken@nuim.ie

Appendix Two – Stage One Information Sheet



Research Project: *Quality of Life in Retirement*

Participant Information Sheet

We would like to invite you to take part in an important research study. Before you decide whether or not you would like to take part, it is important for you to understand why the research is being done and what it will involve. Please take a few minutes to read carefully through the following information and discuss it with others if you wish. Also, please ask us if there is anything that is not clear, or if you would like more information.

What is the purpose of this study?

The purpose of this research is to assess quality of life in retirement with a view to informing health promotion policies in some occupational sectors.

Why have I been asked to take part?

You have been asked to take part in this research as you are a key informant on retirement within your organisation.

Who is carrying out the research?

This research is being carried out by researchers at the Department of Psychology, NUI Maynooth.

Who has approved this study?

The Social Research Ethics Sub-Committee of NUI Maynooth have approved this research design.

Do I have to take part?

No, you are under no obligation whatsoever to take part in the research. However, we hope that you will agree to take part and give us some time to describe your experiences of, and views on, retirement. It is entirely

up to you to decide whether or not you would like to take part. If you decide to take part, you are still free to withdraw at any time (and withdraw your information) without giving a reason.

What will happen to me if I take part?

You will be asked to take part in a short interview on your views on practices and procedures for retirement within your organisation.

How long will the whole process take?

The interview should take approximately 30 minutes to complete.

Will my taking part in this research be kept confidential?

All information which is collected about you during the course of the research will be kept **strictly confidential**. All information will be held under lock and key and will be accessed only by the Researcher and will not be distributed to any other unauthorised individual.

What will happen to the results of the research?

The research will be written up in report format to help develop policies and procedures and may be published in journals and presented at conferences.

Who do I contact if I have a question?

Please feel free to address any questions to Mairéad Bracken who is also available on the telephone to discuss the study with you (Tel: 01 7084787, 087 9101583).

Alternatively, you can email or write to:

Ms Sharon Gallagher (sharon.gallagher@nuim.ie) or Dr Sinéad McGilloway, (sinead.mcgilloway@nuim.ie) Department of Psychology, John Hume Building, NUI Maynooth, Maynooth, Co. Kildare, Ireland.

Thank you for taking the time to read this information sheet

If during your participation in this study you feel the information and guidelines that you were given have been neglected or disregarded in any way, or if you are unhappy about the process, please contact the Secretary of the National University of Ireland Maynooth Ethics Committee at research.ethics@nuim.ie or +353 (0)1 708 6019. Please be assured that your concerns will be dealt with in a sensitive manner.

Appendix Three – Stage One Consent Form



No. _____
For Office Use only

Participant Consent Form

Title of Project: Quality of Life in Retirement

Name of Researcher: Mairéad Bracken

Please initial box

1. I confirm that I have read and understand the Information Sheet for the above study and have had the opportunity to ask questions.
2. I understand that my participation is voluntary and that I am free to withdraw from the research at any time (and withdraw my data), without giving any reason and in the knowledge that my legal rights and my access to, or use of, services will not be affected (where applicable).
3. I understand that all information will be treated in the **strictest confidence** and my confidentiality is guaranteed. I also understand that, at no time will my name be connected to the responses that I have given. All information will be held in a locked cabinet at NUIM which will be accessed solely by the researcher, and will not be distributed to any other unauthorised individual. These data may be accessed by me at my discretion and at any time.
4. I confirm that I have read the sheet containing support contacts information.
5. I agree to take part in the above study.
6. I agree to allow the use of my anonymised data in any future research if so required.

Name of participant

Signature

Date:

Appendix Four – Stage One Reply Slip

Reply slip

I would like to participate in a key informant interview:

Name (block capitals): _____

Signed: _____

Tel or mobile number: _____

Email: _____

Address:

Appendix Five – Stage One Demographic Information Sheet

Demographic information sheet

Name: _____

Age: _____

Job title: _____

Years in current position: _____

Total no. of years in organisation: _____

Station/region: _____

Appendix Six – Stage Two Cover Letter



Mairéad Bracken
Department of Psychology
Room 24 Logic Annex
South Campus
NUI Maynooth
Co Kildare

30th November 2012

Quality of Life in Retirement

Dear Mr X,

Researchers at the Department of Psychology at NUI Maynooth have been commissioned to conduct an important national research study looking at quality of life in retired individuals. This project aims to assess the views of retired individuals of their overall health and well being (or quality of life) in retirement. Ultimately, it is hoped that the results of this research will benefit all retired people in Ireland and it is important, therefore, that as many people as possible agree to take part.

(1) The first part of the research involves a survey of retired persons. We would be extremely grateful if you would take a few minutes of your time to complete the enclosed questionnaire and return it with your signed consent form in the stamped addressed envelope provided to Mairéad Bracken. All information provided will be treated in strictest confidence and no names will be recorded at any time.

(2) This questionnaire will be followed up by a second stage involving one-to-one interviews with a smaller sub-sample of retired persons in order to obtain some more detailed information on quality of life in retirement. These should take no longer than approximately 45 minutes to one hour and if you choose to take part, this interview will take place at a time and place that are convenient for you and will be conducted at your own pace.

Again, everything you say will be totally confidential and your name will not be used at any time. If you would like to be invited for possible participation in a follow-up interview to talk about your experiences of retirement, please complete the reply slip in the final section of the questionnaire, making sure that you provide a telephone or mobile number and/or an address where you can be contacted. If you do not wish to participate, please leave this section blank.

If you have any queries about the study, or any of the above, please do not hesitate to contact Mairéad Bracken at 01 7084787, 087 9101583, or mairead.bracken@nuim.ie

We would be most grateful if you would complete the questionnaire and return it with your signed consent form in the stamped addressed envelope within **two weeks** of receipt. Again, we would like to emphasise the importance of receiving feedback from as many retired individuals as possible in order that the study findings will be meaningful and more likely to ‘make a difference’.

I look forward to hearing from you

Many thanks for your help and co-operation

Yours sincerely

A handwritten signature in blue ink that reads "Mairéad Bracken". The signature is written in a cursive style with a long horizontal flourish extending to the right.

Mairéad Bracken

Doctoral Student

Department of Psychology,

Room 24 Logic Annex, South Campus,

NUI Maynooth, Co Kildare

Tel: 01 7084787 / 087 9101583

Email: mairead.bracken@nuim.ie

Appendix Seven – Stage Two Information Sheet



Research Project: *Quality of Life in Retirement*

Participant Information Sheet

We would like to invite you to take part in an important research study. Before you decide whether or not you would like to take part, it is important for you to understand why the research is being done and what it will involve. Please take a few minutes to read carefully through the following information and discuss it with others if you wish. Also, please ask us if there is anything that is not clear, or if you would like more information.

What is the purpose of this study?

The purpose of this research is to assess quality of life in retirement with a view to informing health promotion policies in some occupational sectors.

Why have I been asked to take part?

You have been asked to take part in this research as you are a retired individual aged 55-75 years.

Who is carrying out the research?

This research is being carried out by researchers at the Department of Psychology, NUI Maynooth.

Who has approved this study?

The Social Research Ethics Sub-Committee of NUI Maynooth have approved this research design.

Do I have to take part?

No, you are under no obligation whatsoever to take part in the research. However, we hope that you will agree to take part and give us some time to describe your experiences of retirement. It is entirely up to you to

decide whether or not you would like to take part. If you decide to take part, you are still free to withdraw at any time (and withdraw your information) without giving a reason.

What will happen to me if I take part?

You will be asked to complete an anonymous questionnaire which relates to your experiences and any impact on your quality of life and well-being.

How long will the whole process take?

The questionnaire should take approximately 30 minutes to complete.

Will my taking part in this research be kept confidential?

All information which is collected about you during the course of the research will be kept **strictly confidential**. All information will be held under lock and key and will be accessed only by the Researcher and will not be distributed to any other unauthorised individual.

What will happen to the results of the research?

The research will be written up in report format to help develop policies and procedures and may be published in journals and presented at conferences.

Who do I contact if I have a question?

Please feel free to address any questions to Mairéad Bracken who is also available on the telephone to discuss the study with you (Tel: 01 7084787, 087 9101583).

Alternatively, you can email or write to:

Ms Sharon Gallagher (sharon.gallagher@nuim.ie) or Dr Sinéad McGilloway, (sinead.mcgilloway@nuim.ie) Department of Psychology, John Hume Building, NUI Maynooth, Maynooth, Co. Kildare, Ireland.

Thank you for taking the time to read this information sheet

If during your participation in this study you feel the information and guidelines that you were given have been neglected or disregarded in any way, or if you are unhappy about the process, please contact the Secretary of the National University of Ireland Maynooth Ethics Committee at research.ethics@nuim.ie or +353 (0)1 708 6019. Please be assured that your concerns will be dealt with in a sensitive manner.

Appendix Eight – Stage Two Consent Form



No. _____
For Office Use only

Participant Consent Form

Title of Project: Quality of Life in Retirement

Name of Researcher: Mairéad Bracken

Please initial box

1. I confirm that I have read and understand the Information Sheet for the above study and have had the opportunity to ask questions.
2. I understand that my participation is voluntary and that I am free to withdraw from the research at any time (and withdraw my data), without giving any reason and in the knowledge that my legal rights and my access to, or use of, services will not be affected (where applicable).
3. I understand that all information will be treated in the **strictest confidence** and my confidentiality is guaranteed. I also understand that, at no time will my name be connected to the responses that I have given. All information will be held in a locked cabinet at NUIM which will be accessed solely by the researcher, and will not be distributed to any other unauthorised individual. These data may be accessed by me at my discretion and at any time.
4. I confirm that I have read the sheet containing support contacts information.
5. I agree to take part in the above study.
6. I agree to allow the use of my anonymised data in any future research if so required.

Name of participant

Signature

Date:

QUALITY OF LIFE IN RETIREMENT QUESTIONNAIRE

Please help us to investigate quality of life in retirement by answering the following short questions about yourself and your recent experiences. We are interested in your honest answers, whether positive or negative. Please answer all of the relevant questions. **All information is confidential.**

SECTION A: BACKGROUND INFORMATION

1. Age:

2. Gender: Male Female

3. Marital status: Single Divorced/Separated
 Married Widowed
 Co-habiting Other (*please specify*)

4. How many children do you have, if any? _____

5. How much time do you spend with your children (on the phone, in person etc.)?

As much as I would like
 Almost as much as I would like
 Not as much as I would like
 Not applicable

6. How many grandchildren do you have, if any? _____

7. How much time do you spend with your grandchildren (on the phone, in person etc.)?

As much as I would like
 Almost as much as I would like
 Not as much as I would like
 Not applicable

8. Which best describes the highest level of education you have completed?

Primary level
 Up to Group, Inter/Junior Certificate or equivalent
 Leaving Certificate or equivalent
 University/Regional College or equivalent

9. Which region of Ireland do you live in at present?

Northern Ireland

Munster

Dublin

Leinster (outside of Dublin)

Ulster (outside of Northern Ireland)

Connaught

<input type="checkbox"/>

10. When did you retire?

_____ month _____ year

11. Was your move to retirement sudden or more gradual/phased?

My move to retirement was quite sudden

<input type="checkbox"/>
<input type="checkbox"/>

My move to retirement was phased/gradual

12. Why did you decide to retire at this time?

I had reached retirement age

I retired because of medical reasons

I was unhappy in my job

Other reason

(Please specify) _____

<input type="checkbox"/>
<input type="checkbox"/>
<input type="checkbox"/>
<input type="checkbox"/>

13. How many years had you worked in your previous occupation before you retired?

_____ years

14. Previous occupation(s): _____

15. What was your job title in this occupation?

16. On what basis were you employed in this occupation?

Full time

<input type="checkbox"/>
<input type="checkbox"/>
<input type="checkbox"/>

Part time

Other (please specify)

17. Did you complete shift work on a regular basis in your previous occupation?

Yes

<input type="checkbox"/>
<input type="checkbox"/>

No

18. How would you rate your satisfaction in your previous occupation?

High
Moderate
Low

19. Do you attend any retirement clubs or meetings?

I attend a retirement club/meeting associated with my previous occupation

I attend a retirement club/meeting which is not associated with my previous occupation

I do not attend any retirement clubs/meetings but would like to

I am not interested in attending any retirement clubs/meetings

20. Are there are supports in place for those retired from your previous occupation? e.g. does the organisation you retired from organise meetings of retired individuals

21. Do you currently participate in part time work?

Yes

No

If yes, what kind of part time work do you do?

22. Do you currently participate in voluntary work?

Yes

No

If yes, what kind of voluntary work do you do?

23. Do you receive a regular income at present?(pension or other)

Yes

No

24. Do you feel your income is sufficient to meet all your needs?

Yes

No

25. Would you describe yourself as a resilient person; someone who is able to recover quickly from unpleasant or damaging events?

I am very resilient

I am somewhat resilient

I am not a resilient person

SECTION B: HEALTH AND QUALITY OF LIFE

Do you smoke?

Yes

No

If yes, how many cigarettes do you smoke on average each day?

Do you consume alcohol?

Yes

No

If yes, please complete additional questions a,b,c and d below

Have you ever:

a. **Wanted to cut down on your drinking?**

Yes

No

b. **Felt annoyed by someone criticising your drinking?**

Yes

No

c. **Felt guilty about your drinking?**

Yes

No

d. **Had a drink first thing in the morning to steady your nerves?**

Yes

No

QUALITY OF LIFE:

The following questions ask how you feel about your quality of life, health, or other areas of your life. Please choose the answer that appears most appropriate. If you are unsure about which response to give to a question, the first response you think of is often the best one. Please keep in mind your standards, hopes, pleasures and concerns. We ask that you think about your life **IN THE LAST FOUR WEEKS.**

1. How would you rate your quality of life?

Very poor

Poor

Neither poor nor good

Good

Very good

2. How satisfied are you with your health?

Very dissatisfied

Dissatisfied

Neither dissatisfied nor satisfied

Satisfied

Very satisfied

The following questions ask about how much you have experienced certain things in the last four weeks.

3. To what extent do you feel that physical pain prevents you from doing what you need to do?

- Not at all
- A little
- A moderate amount
- Very much
- An extreme amount

4. How much do you need medical treatment to function in your daily life?

- Not at all
- A little
- A moderate amount
- Very much
- An extreme amount

5. How much do you enjoy life?

- Not at all
- A little
- A moderate amount
- Very much
- An extreme amount

6. To what extent do you feel your life to be meaningful?

- Not at all
- A little
- A moderate amount
- Very much
- An extreme amount

7. How well are you able to concentrate?

- Not at all
- A little
- A moderate amount
- Very much
- Extremely

8. How safe do you feel in your daily life?

- Not at all
- A little
- A moderate amount
- Very much
- Extremely

9. How healthy is your physical environment (your home and its surroundings)?

- Not at all
- A little
- A moderate amount
- Very much
- Extremely

The following questions ask about how completely you experience or were able to do certain things in the last four weeks.

10. Do you have enough energy for everyday life?

- Not at all
- A little
- Moderately
- Mostly
- Completely

11. Are you able to accept your bodily appearance?

- Not at all
- A little
- Moderately
- Mostly
- Completely

12. Have you enough money to meet your needs?

- Not at all
- A little
- Moderately
- Mostly
- Completely

13. How available to you is the information that you need in your day-to-day life?

- Not at all
- A little
- Moderately
- Mostly
- Completely

14. To what extent do you have the opportunity for leisure activities?

- Not at all
- A little
- Moderately
- Mostly
- Completely

15. How well are you able to get around?

- Very poor
- Poor
- Neither poor nor good
- Good
- Very good

16. How satisfied are you with your sleep?

- Very dissatisfied
- Dissatisfied
- Neither satisfied nor dissatisfied
- Satisfied
- Very satisfied

17. How satisfied are you with your ability to perform your daily living activities?

- Very dissatisfied
- Dissatisfied
- Neither satisfied nor dissatisfied
- Satisfied
- Very satisfied

18. How satisfied are you with your capacity for work?

- Very dissatisfied
- Dissatisfied
- Neither satisfied nor dissatisfied
- Satisfied
- Very satisfied

19. How satisfied are you with yourself?

- Very dissatisfied
- Dissatisfied
- Neither satisfied nor dissatisfied
- Satisfied
- Very satisfied

20. How satisfied are you with your personal relationships?

- Very dissatisfied
- Dissatisfied
- Neither satisfied nor dissatisfied
- Satisfied
- Very satisfied

21. How satisfied are you with your sex life?

- Very dissatisfied
- Dissatisfied
- Neither satisfied nor dissatisfied
- Satisfied
- Very satisfied

22. How satisfied are you with the support you get from your friends?

- Very dissatisfied
- Dissatisfied
- Neither satisfied nor dissatisfied
- Satisfied
- Very satisfied

23. How satisfied are you with the conditions of your living place?

- Very dissatisfied
- Dissatisfied
- Neither satisfied nor dissatisfied
- Satisfied
- Very satisfied

24. How satisfied are you with your access to health services?

- Very dissatisfied
- Dissatisfied
- Neither satisfied nor dissatisfied
- Satisfied
- Very satisfied

25. How satisfied are you with your transport?

- Very dissatisfied
- Dissatisfied
- Neither satisfied nor dissatisfied
- Satisfied
- Very satisfied

The following question refers to how often you have felt or experienced certain things in the last four weeks.

26. How often do you have negative feelings such as blue mood, despair, anxiety, depression?

- Never
- Seldom
- Quite often
- Very often
- Always

SECTION C: SOCIAL SUPPORT

Here is a list of some things that other people do for us or give us that may be helpful or supportive. Please read each statement carefully and place an 'X' in the column that is closest to your situation. Give only 1 answer per row.

	As much as I would like	Almost as much as I would like	Some, but would like more	Less than I would like	Much less than I would like
I have people who care what happens to me					
I get love and affection					
I get chances to talk to someone about problems at work or with my housework					
I get chances to talk to someone I trust about my personal or family problems					
I get chances to talk about money matters					
I get invitations to go out and do things with other people					
I get useful advice about important things in life					
I get help when I am sick in bed					

SECTION D: TRAUMA

During your professional or personal experience please give details of the incident that you found the most difficult to deal with personally? (i.e. What was the nature of the incident? etc)

How long ago did the incident occur? _____ years ago

Please read each statement below *about the incident you described* and tick how frequently each was true for you **IN THE PAST MONTH.**

	Sensations/Experiences/Behaviours	Not at all	Once per week or less	2-4 times a week	5 or more times a week
1	Having upsetting thoughts or images about the incident that came into your head when you didn't want them to.				
2	Having bad dreams or nightmares about the incident.				
3	Reliving the incident, acting or feeling as if it was happening again.				
4	Feeling very emotionally upset when you were reminded of the incident (for example feeling angry, guilty, scared, sad etc.).				
5	Experiencing physical reactions when you were reminded of the incident (for example breaking out in a sweat, heart racing).				
6	Trying not to think about, talk about or have feelings about the incident				
7	Trying to avoid activities, people, or places that remind you of the incident.				
8	Not being able to remember an important part of the incident.				
9	Having much less interest or participating much less often in important activities.				
10	Feeling distant or cut off from people around you.				
11	Feeling emotionally numb (for example, being unable to cry or unable to have loving feelings).				
12	Feeling as if future plans or hopes will not come true (for example, will have no career, marriage, children or long life).				
13	Having trouble falling and staying asleep.				
14	Feeling irritable or having fits of anger.				
15	Having trouble concentrating (for example, drifting in and out of conversations, losing track of a story on television, forgetting what you read).				
16	Being over-alert (for example, checking to see who is around you, being uncomfortable etc).				
17	Being jumpy or easily startled.				

SECTION E: LIFE EVENTS

Listed below are a number of events which sometimes bring about change in the lives of those who experience them and which necessitate social readjustment. ***PLEASE CHECK THOSE EVENTS WHICH YOU HAVE EXPERIENCED IN THE PAST YEAR AND INDICATE THE TIME PERIOD DURING WHICH YOU HAVE EXPERIENCED EACH EVENT.*** Be sure that all check marks are directly across from the items they correspond to.

Also, for each item checked below, *please indicate the extent to which you viewed the event as having either a positive or negative impact on your life at the time the event occurred.* That is, *indicate the type and extent of impact that the event had.* A rating of -3 would indicate an extremely negative impact. A rating of 0 suggests no impact either positive or negative. A rating of +3 would indicate an extremely positive impact.

- 3 extremely negative**
- 2 moderately negative**
- 1 somewhat negative**
- 0 no impact**
- +1 slightly positive**
- +2 moderately positive**
- +3 extremely positive**

	Event	0 - 6 mths ago	7 mths - 1 year ago	-3	-2	-1	0	+1	+2	+3
1.	Marriage			-3	-2	-1	0	+1	+2	+3
2.	Detention in jail or comparable institution			-3	-2	-1	0	+1	+2	+3
3.	Death of a spouse			-3	-2	-1	0	+1	+2	+3
4.	Major change in sleeping habits (much more or much less sleep)			-3	-2	-1	0	+1	+2	+3
5.	Death of a close family member:									
	a. Mother			-3	-2	-1	0	+1	+2	+3
	b. Father			-3	-2	-1	0	+1	+2	+3
	c. Brother			-3	-2	-1	0	+1	+2	+3
	d. Sister			-3	-2	-1	0	+1	+2	+3
	e. Other			-3	-2	-1	0	+1	+2	+3
6.	Major change in eating habits (much more or much less food intake)			-3	-2	-1	0	+1	+2	+3
7.	Foreclosure on mortgage or loan			-3	-2	-1	0	+1	+2	+3
8.	Death of a close friend			-3	-2	-1	0	+1	+2	+3
9.	Outstanding personal achievement			-3	-2	-1	0	+1	+2	+3

	Event	0 – 6 mths ago	7 mths – 1 year ago	-3	-2	-1	0	+1	+2	+3
10.	Minor law violations (traffic tickets, disturbing the peace etc)			-3	-2	-1	0	+1	+2	+3
11.	<i>Male:</i> Wife/girlfriend's pregnancy			-3	-2	-1	0	+1	+2	+3
12.	<i>Female:</i> Pregnancy			-3	-2	-1	0	+1	+2	+3
13.	Changed work situation (different work responsibility, major change in working conditions, working hours etc)			-3	-2	-1	0	+1	+2	+3
14.	New job			-3	-2	-1	0	+1	+2	+3
15.	Serious injury or illness of close family member:									
	a. Father			-3	-2	-1	0	+1	+2	+3
	b. Mother			-3	-2	-1	0	+1	+2	+3
	c. Sister			-3	-2	-1	0	+1	+2	+3
	d. Brother			-3	-2	-1	0	+1	+2	+3
	e. Other			-3	-2	-1	0	+1	+2	+3
16.	Sexual difficulties			-3	-2	-1	0	+1	+2	+3
17.	Trouble with employer (in danger of losing job, being suspended, demoted etc)			-3	-2	-1	0	+1	+2	+3
18.	Trouble with in-laws			-3	-2	-1	0	+1	+2	+3
19.	Major change in financial status (a lot better off or a lot worse)			-3	-2	-1	0	+1	+2	+3
20.	Major change in closeness of family members (increased or decreased closeness)			-3	-2	-1	0	+1	+2	+3
21.	Gaining a new family member (through birth, adoption, family member moving in etc)			-3	-2	-1	0	+1	+2	+3
22.	Change of residence			-3	-2	-1	0	+1	+2	+3
23.	Marital separation from mate (due to conflict)			-3	-2	-1	0	+1	+2	+3
24.	Major change in church activities (increased or decreased attendance)			-3	-2	-1	0	+1	+2	+3
25.	Marital reconciliation with mate			-3	-2	-1	0	+1	+2	+3
26.	Major change in number of arguments with spouse (a lot more or a lot less arguments)			-3	-2	-1	0	+1	+2	+3
27.	<i>Married Male:</i> Change in wife's work outside the home (beginning work, ceasing work, changing to a new job etc)			-3	-2	-1	0	+1	+2	+3

	Event	0 – 6 mths ago	7 mths – 1 year ago	-3	-2	-1	0	+1	+2	+3
28.	<i>Married Female:</i> Change in husbands work (loss of job, beginning new job, retirement etc)			-3	-2	-1	0	+1	+2	+3
29.	Major change in usual type and/or amount of recreation			-3	-2	-1	0	+1	+2	+3
30.	Borrowing more than €10,000			-3	-2	-1	0	+1	+2	+3
31.	Borrowing less than €10,000			-3	-2	-1	0	+1	+2	+3
32.	Being fired from job			-3	-2	-1	0	+1	+2	+3
33.	<i>Male:</i> Wife/girlfriend having abortion			-3	-2	-1	0	+1	+2	+3
34.	<i>Female:</i> Having abortion			-3	-2	-1	0	+1	+2	+3
35.	Major personal illness or injury			-3	-2	-1	0	+1	+2	+3
36.	Major change in social activities e.g. parties, movies, visiting (increased or decreased participation)			-3	-2	-1	0	+1	+2	+3
37.	Major change in living conditions of family (building new home, remodelling etc)			-3	-2	-1	0	+1	+2	+3
38.	Divorce			-3	-2	-1	0	+1	+2	+3
39.	Serious injury or illness of close friend			-3	-2	-1	0	+1	+2	+3
40.	Retirement from work			-3	-2	-1	0	+1	+2	+3
41.	Son or daughter leaving home (due to marriage, college etc)			-3	-2	-1	0	+1	+2	+3
42.	Ending of formal schooling			-3	-2	-1	0	+1	+2	+3
43.	Separation from spouse (due to travel, work etc)			-3	-2	-1	0	+1	+2	+3
44.	Engagement			-3	-2	-1	0	+1	+2	+3
45.	Breaking up with boyfriend/girlfriend			-3	-2	-1	0	+1	+2	+3
46.	Leaving home for the first time			-3	-2	-1	0	+1	+2	+3
47.	Reconciliation with boyfriend/girlfriend			-3	-2	-1	0	+1	+2	+3
	Other recent experiences which have has an impact on your life: please list and rate			-3	-2	-1	0	+1	+2	+3
48.				-3	-2	-1	0	+1	+2	+3
49.				-3	-2	-1	0	+1	+2	+3
50.				-3	-2	-1	0	+1	+2	+3

SECTION F: COMMENTS

Please feel free to add any comments about your experiences

This questionnaire will be followed up with a second stage involving a one-to-one interview designed to elicit some more detailed information. If you are willing to participate in an interview with the researcher, please complete the section over leaf. The interview should take no longer than approximately 45 minutes and can take place at a time and place that are convenient for you.

Please return the questionnaire and reply slip (where applicable) using the Stamped Addressed Envelope provided to:

Ms Mairéad Bracken, Department of Psychology, Room 24 Logic Annex, South Campus, NUI Maynooth, Co Kildare.

If you have any queries, please contact Mairéad at 01 7084787 or 087 9101583, or by email at mairead.bracken@nuim.ie

If you have a problem with anything mentioned in this questionnaire that you have just completed or are finding it difficult to cope with anything in life then you can talk to your family, friends or contact some of the services listed in attached information sheet.

THANK YOU VERY MUCH FOR YOUR HELP

Reply slip

I would like to participate in the second (interview) stage of the research:

Name (block capitals): _____

Signed: _____

Tel or mobile number: _____

Email: _____

Home address (optional):

**Appendix 10 – Guidance for Safe Working Practice in Psychological
Research**

**GUIDANCE FOR SAFE WORKING PRACTICE IN
PSYCHOLOGICAL RESEARCH**

Department of Psychology

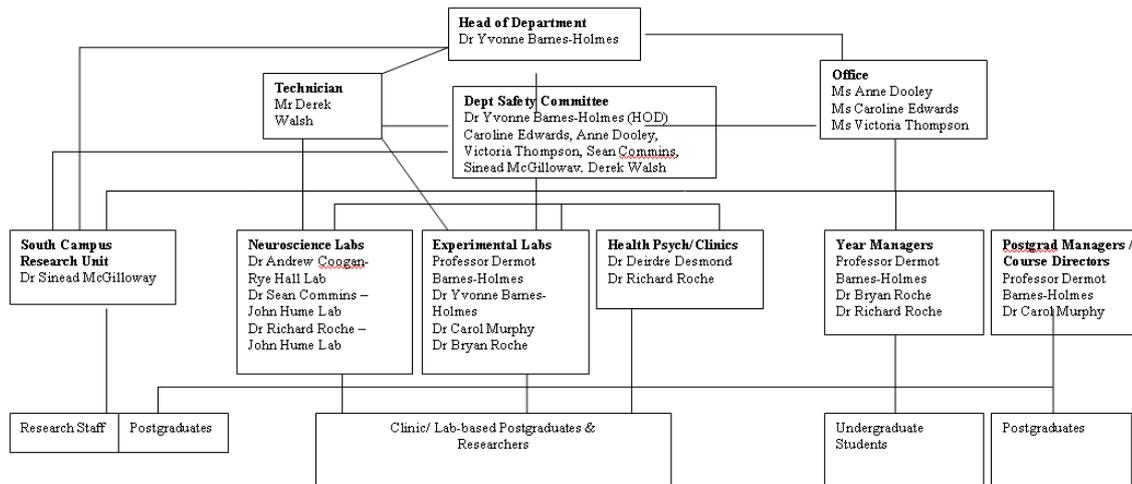
Maynooth University

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- 5. Guidelines for conducting research with human participants
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GUIDANCE FOR SAFE WORKING PRACTICE IN PSYCHOLOGICAL RESEARCH

Staff members with responsibility for particular units/laboratories are shown in the chart below:



5. GUIDELINES FOR CONDUCTING RESEARCH WITH HUMAN PARTICIPANTS

This document has been devised in order to provide detailed safety guidance to staff and students when conducting psychological research with human participants. The staff members in the Department recognise that the personal safety and health of students and other researchers/staff members should be protected at all times when conducting research. Therefore, it is important that staff and students conducting research within or outside the Department of Psychology read and follow these guidelines. **NB.** **All postgraduate students and visiting postgraduate students are also required to complete and return the Declaration section at the end of this document to the Departmental Office.** Please note that you will be unable to begin or continue your research if you fail to complete this declaration, or if it becomes clear that you are (or have been at any stage) in breach of these guidelines. All postgraduate students and researchers working in the department must ensure they are familiar with the guidance for safe working practice in psychological research guidelines. Please also consult the University Safety Policy Statement which is appended.

5.1 WORKING GENERALLY WITHIN THE DEPARTMENT

Under most circumstances, the assessment or testing of human participants proceeds without incident. However, occasional difficulties may arise and it is imperative, therefore, that these guidelines are read and followed by all students and staff.

- Supervisors **MUST** provide a list of visiting researchers to the departmental office.
- If you are interviewing, assessing or testing a participant in the department, please ensure that you have a landline telephone number (or at the very least a mobile number) and address for them before they come in. Please telephone in advance to confirm that this is a correct number. Ensure that this is filed in a place known to your supervisor or to a colleague.

- Make sure that someone knows: (a) that you are seeing this person; (b) where the assessment or testing is being conducted; and (c) when you are due to finish. Please introduce the participant by name to this colleague if possible.
- Wherever possible, try to ensure that you are seated nearest to the door. If possible, leave the door slightly ajar.
- If you have any doubts or worries about the prospective participant, please terminate the session immediately and inform your supervisor. In some cases, it may be better to leave the room and to let the participant finish while reporting the difficulty to your supervisor or the Head of Department. Please ensure that you inform all of these people of the difficulties after the event. If, at any time, you feel ***under physical threat***, find a plausible excuse, ***leave the room immediately*** and call security on ***Ext. 3589/3929 (01 708 3589/3929*** from a mobile).
- If a participant faints, or becomes visibly ill or distressed, contact the University Medical Centre immediately (Ext.3878) and report to departmental office or phone Ext.3333 for campus emergencies. In some situations, you should take care to screen for medical conditions and check if any participants have epilepsy as a seizure may be triggered by a visually demanding or flickering computer screen. Consult the appended University document containing first aider details and instructions regarding medical emergencies.
- Testing should not take place outside of departmental office hours i.e. Mon to Fri 9a.m. to 5p.m.
- Should you see anyone in the building whom you regard as behaving suspiciously, or in the department whom you do not recognise, do not confront, but phone security on ***Ext. 3589/3929*** and seek assistance/advice from any available source.
- Please note that prospective participants have not been ‘vetted’ and that people recruited from posters on campus may not necessarily be students. Therefore, you must be aware of the pitfalls of handing out a **personal mobile phone number**. A safer alternative might be to recruit using a temporary email account, e.g., readingstudy@hotmail.com. Researchers should report any cases of inappropriate or persistent calls or contact from participants to their supervisor and Head of Department.
- If any participant asks for help or advice for psychological or other problems, please state firmly that it is not appropriate for you to give such advice because you are not qualified to do so, and direct them to their GP, or to their local A&E department.

5.2 CONDUCTING ASSESSMENTS OR INTERVIEWS OUTSIDE THE DEPARTMENT

The Head of Department must ensure that those appointed to undertake fieldwork are authorised, adequately trained and judged to be sufficiently competent to do so. The supervisor must inform the Head of Department of those undertaking fieldwork and their training requirements. However, the supervisor is primarily responsible for assessing the level of risk involved and implementing safe systems of work. With regard to the latter, the following guidelines must be adhered to at all times by students and staff.

Where possible, the research should be conducted in a convenient and preferably quiet public place (e.g. a quiet café/restaurant or a hotel lobby). Supervisors should ensure that undergraduates do not test participants who are not known to them outside the

department in non-public places. For postgraduates and research staff, the following precautions must be taken when *making a home visit*:

- Staff/students must always carry a charged mobile phone.
- There should be a clear 'checking-in' procedure with the supervisor, or another member of staff or colleague where appropriate (this includes postdoctoral fellows) when undertaking a home visit. The designated contact person must have a record of the time of the visit, the name and address, and the telephone number. They must also know the mobile phone number of the researcher.
- All students and staff should carry photographic ID that clearly indicates their status and affiliation. This should be shown before entering anyone's home.
- As part of the introduction to the participant, the researcher should say '*I just have to call my supervisor (or another staff member or colleague who can be available at the time)*'. The researcher should then ring the designated staff member, or available colleague, in the presence of the participant and say: 'I'm in xxxx's house, and will be finished at approximately xx'.
- If a researcher fails to ring the designated person at the appointed time, that person should immediately try to make contact with him/her. If unsuccessful, a member of staff should be contacted and/or, where appropriate, the relevant emergency services phoned.
- If you have any doubts or worries about the prospective participant, please terminate the session immediately and find a plausible excuse to leave. You should inform your supervisor as soon as possible afterwards. If, at any time, you feel under *physical threat*, find an excuse to leave the room immediately and call the appropriate services. Try not to panic – if you stay calm, you will be more able to think clearly and stay safe.
- A personal alarm should be carried at all times and the relevant services contacted in the event of an emergency. Some personal alarms are available within the department. Please contact your supervisor if you require one.
- See the leaflet entitled '*Working Safely in other People's Homes*' published by the Suzy Lamplugh trust (see Appendix 2).
- If any participant asks for help or advice for psychological or other problems, please state that it would not be appropriate for you to provide such help because you are not qualified to do so. Instead, direct them to their GP, or to the A&E department at their local hospital. In specific projects, it may also be advisable to provide some or all participants with information leaflets and help line numbers etc. (e.g. of mental health support organisations).

5.2.1 Further guidelines for assessing patient participants and other vulnerable groups (e.g. people with mental health problems)

- Patients should be well briefed about what to expect of the session before the visit in question.
- A first home visit by staff or students to participants with a brain injury or mental health problem **MUST** always be made by two people.
- All patient participants must be provided with an Information Sheet which should, where possible, be distributed to them and their families at least 48 hours before the first visit.

- In general, patient participants should not be tested, or be required to complete questionnaires or engage in any other research activity for more than one hour without a break. A maximum of two 60-minute sessions in any one day is a reasonable guideline, although there are exceptions where people have travelled a long distance.
- People who have had a stroke, or who are terminally ill (or have some other illness or disability) may often develop pain and discomfort when, for instance, being asked to stare for long periods at a computer screen, or when asked to complete lengthy questionnaires or interviews. Therefore, they should be frequently monitored for pain and discomfort, and testing/assessment stopped if necessary.

5.2.2 A brief note on research with children: protecting their safety

This section deals with issues of safety when conducting research with children. The Department recognises that it has a duty of care to children with whom it is in contact for research purposes. Ethical guidelines on conducting research with children may be obtained from the departmental office.

- It is important to make clear and documented plans for data collection. Records should be kept of arrangements made with parents/guardians, teachers and schools. Records of written permission should be retained.
- A parent/guardian or school teacher/principal must be present at all times.

NB. For further information on personal safety when dealing with human participants, please refer to the departmental copy of *Personal Safety for Health Care Workers* (1995) by P. Bibby (Ashgate: Suzy Lamplugh Trust). (In particular, see Chapters 14-16). A copy of *Lone Working* (2005) (Ashgate: Suzy Lamplugh Trust) is also available from the departmental office.

5.3 Guidelines for conducting electrophysiological research with human participants (EEG/ERP)

All personnel working with EEG/ERP may do so only after they have received adequate training in the use of electrophysiological techniques, either at NUIM, or one of the collaborating institutions of the Department of Psychology (e.g. TCD, St. Vincent's Hospital, Fairview, Nathan Kline Institute, NY). New postgraduates and all undergraduates may only carry out electrophysiological data acquisition in the presence of a trained postgraduate student, trained postdoctoral researcher, or staff member with experience of EEG/ERP acquisition. All personnel working with EEG/ERP must wear appropriate PPE (see below).

5.3.1 Participant safety and comfort

At all times, staff/students carrying out electrophysiological research should attempt to ensure the maximum comfort and safety of the research participant, and participants should be encouraged to inform the experimenter if they feel that any part of the procedure is uncomfortable or painful. Electrode caps should be placed gently on participants with the FPz electrode located 4 cm from the nasion; participants should be consulted as to the comfort of the cap before electrode application begins. Participants should be covered with a barber's smock during preparation, and seated in a comfortable chair throughout the set-up process. Application of electrode gel should not require the physical abrasion of the participant's scalp, and all gels and adhesive

tape/pads should be tested 24 hours before testing on the participant's forearm to ensure an allergy is not present. Loose electrodes (e.g. electro-oculograms, naison reference electrodes etc.) should be affixed to the participant using surgical tape and adhesive pads in such a way as to neither occlude vision, nor to cause discomfort. The EEG amplifier should not be switched on until all electrodes have been applied to the participant. In the event of poor impedance signal from the participant, gel may be worked gently through the hair toward the scalp using a blunt sterile applicator, and the minimum pressure should be exerted in order to prevent skin abrasion. In the event that the participant finds the electrode array heavy or a strain on the neck, an inflatable travel cushion may be placed around the neck. Participants should be allowed breaks between testing blocks. Following testing, the electrode cap should be removed gently and the participant should be provided with shampoo to remove electrode gel from the scalp and hair.

5.3.2 Experimenter guidelines

- Laboratory coats should be worn at all times when conducting experiments.
- Laboratory coats should be cleaned on a regular basis.
- Surgical gloves should be worn during electrode application.
- The laboratory should be kept clean and tidy.
- All participants are required to sign a Consent Form prior to participation (please see your research supervisor) and should be made aware of any safety issues that may arise.
- Undergraduate students are not permitted to work alone in the EEG laboratory.
- Postgraduate students are allowed to work alone in the laboratory, but should ensure that a mobile phone is carried at all times and should be aware of all routes to, and from, the laboratory. (Please refer also to pp.75-76 of this document).
- If you are in the middle of a procedure, it is advisable to remain in the laboratory until the procedure is completed except in the case on an emergency (e.g. fire), in which case the procedure should be terminated.

All laboratories should be equipped with a First Aid kit in the event of an occurrence in the laboratory. In the unlikely event of an occurrence in the laboratory, please contact your supervisor and/or Head of Department immediately.

5.3.3 Electrode cap removal, cleaning and sterilization

After testing is completed, the participant should be seated back in the prepping chair, after first unplugging the electrodes from the electrode board. The loose electrodes should be carefully removed from the face by gripping the plastic/rubber cover near the electrode only and never the wire itself (these are prone to detaching). Conductive paste should be cleaned from the electrodes using paper towel and Q-tips. The VEOGs should be removed in the same way, and with equal care. These should be cleaned in the same manner using paper towel and Q-tips. The participant's face should be cleaned using paper towel and sterile prep pads. The electrode cap should then be gently lifted off and hung on a hook.

After the participant leaves, the cap should be placed in the sink and the electrodes removed from it. The cap should then be turned inside out. The inside of the cap should then be washed out using warm water, ensuring that all traces of the gel are removed; if left, the gel can harden and block the electrode cup. The inside should be washed for 2-3 minutes. The cap should then be turned the right way out to wash the

outside. Particular care should be taken with the areas near the hole at the top of each cup; there are small grooves and crevices in this area where gel can be hard to wash out (the use of a toothbrush is recommended). The outside should also be washed for 2-3 minutes. The cap should then be removed from the sink and placed on a mannequin head to dry.

Individual electrodes should then be gently cleaned of all gel, using warm soapy water and a toothbrush if necessary. After cleaning, these should be hung on a hook and left to dry naturally.

Lastly, the syringes should be washed out to remove any remaining gel, and new syringes should be used after every 5-6 participants, as they tend to become clogged if they are used for longer periods. The cap should be sterilised using 70% alcohol or metricide solution.

5.3.4 Electrical Safety

The BrainAmp amplifier comes with the following two symbols attached:



This symbol indicates that the device has been classified as type BF and is not to be used

with a defibrillator.



This symbol indicates that you must observe the operating instructions.

The amplifier and its accessories have been tested for electromagnetic compatibility (EMC) as per IEC 60601-1-2. However, since it is impossible to cover all possible conditions within a test environment, it is recommended that you avoid exposing the device and its accessories to strong electromagnetic radiation.

Important handling instructions are provided in Appendix A of the operating manual.

As soon as the amplifier and its accessories have reached the end of their lifetime, they should be disposed of in accordance with appropriate national regulations.

For the safety of test subjects, users or third parties, please note the following:

- there must be no loops in the feed lines or electrode cables;
- the electrodes of the Brain Cap must be fed out of the amplifier bundled and straight along the side of the test subject;
- the test subject's arms must lie on either side of their body, not over their stomach or crossed;
- the test subject must not perspire (this produces unwanted conductivity);
- recommended room temperature should be 15 – 25 °C; and
- before recording begins, check that the electrodes are correctly positioned on the subject's head by measuring their impedance.

5.4 GUIDELINES FOR CLINICAL/EXPERIMENTAL RESEARCH

A number of staff and postgraduate students in the Department of Psychology are currently working in the area of clinical-experimental research and are using one or more of the following:

- A live tarantula

- A radiant heat induction pad and related software
- Isolated square-wave stimulators

Only staff and postgraduate students are permitted to conduct research using the tarantula and/or either of the above two forms of apparatus/materials. All such work will be conducted only under the direct supervision of a full-time member of academic staff at the Department of Psychology. If a student intends to work with any of the items listed above, a certain degree of risk to the experimenter and/or research participant is inevitable. As such, a number of general procedures are in place within the Department to ensure risk minimization. (see appended Risk Assessments)

5.4.1 General health and safety issues

- Experimenters must ensure that the laboratory is kept clean and is equipped with a First Aid kit.
- At all times, staff/students conducting research should attempt to ensure the maximum comfort and safety of the participant
- All participants should be encouraged to inform the experimenter if they feel that any part of a procedure is uncomfortable, painful or distressing.
- Participants should be allowed breaks between testing blocks (where appropriate).
- In the event of an emergency occurring during an experiment, experimenters must be aware of all routes to, and from, the laboratory and that it is their responsibility to bring the situation to the immediate attention of the participant.
- In the unlikely event of an unexpected incident, experimenters are advised to report the incident to the research supervisor and Head of Department as soon as possible.
- Any potential difficulties with any apparatus/materials should be reported to the departmental technician immediately and the apparatus should not be used until it has been checked.

The specific nature of the three items listed above requires specific procedures for risk minimisation and these are described separately below.

5.4.2 Health and safety issues for the use of phobia eliciting equipment

- Students using phobia eliciting equipment should consult their supervisors for further information.

5.4.3 Health and safety issues for the use of the radiant heat apparatus

- This equipment can only be used under supervision and following appropriate training conducted by the research supervisor.
- All participants receive several practice exposures to the heat pad. The first exposure will involve the heat pad switched to the ‘off’ position, with subsequent exposures conducted at low temperatures.
- All participants are exposed to a brief medical screening checklist for medical conditions that may be exacerbated by the induction of radiant heat. Participants who are noted as suffering from such conditions, or who indicate this to be the case, are immediately excluded from the study.
- A series of psychological measures are also presented to participants prior to heat induction. These include standardized measures of fear of pain, experiences of pain and presence of known pain conditions. Participants who produce high scores on any of these measures are immediately excluded from the study.

- The software that facilitates the experimental heat trials immediately begins to reduce the level of heat generated by the heat pad as soon as the temperature reaches 50 degrees Celsius. This is a level that is considered safe to human skin.
- The experimenter monitors each participant's interactions with the heat pad trial either in the same room, or through a two-way mirror in an adjacent observation room.
- Participants are given a break of at least two minutes between all heat exposures in order to minimise levels of physical discomfort or pain and to return the skin temperature to normal.
- Part of the experimental procedure involves participants clearly identifying and reporting to the experimenter, the precise points at which they: (1) perceive the induced heat to be painful; and (2) at which they are no longer willing to tolerate the discomfort. With regard to the latter, all participants are clearly instructed to remove their fingers from the heat pad immediately.
- Due to the importance of temperature control in the use of the heat pad, a two-yearly review of the apparatus and software will be organised by the research supervisor. (The first review took place in July 2006.)

5.4.4 Health and safety issues for the use of the isolated square-wave stimulators

- This equipment can only be used under supervision and following appropriate training conducted by the research supervisor.
- The two electrodes should be placed gently on participants' skin when the apparatus is in the 'off' position.
- The electrodes should not be placed on or near skin lesions, scars etc.
- It is imperative that both electrodes are placed on one side of the body only (this can be either the right or left side).
- Participants should be consulted as to the comfort of the clips before the apparatus is switched on.
- When the apparatus is first switched on, the voltage level should be set at 1.
- The level of systematic voltage increase should be low (e.g. increasing by 1 each time).
- When the apparatus is first switched on, the voltage frequency should also be low, as should the level of systematic frequency, both of which may then be gradually increased.
- The manufacturer's 'Handbook for Use' must be read, understood and, if necessary, discussed in detail with the research supervisor prior to any use of the apparatus.
- The following warning information regarding electrical safety is provided with the Isolated Stimulator:

On the rear of the apparatus:

Warning hazardous electrical output. This equipment is for use by qualified persons.

On the front of the apparatus:

Caution: Electrical output possibly hazardous; follow instructions for use.

Within the manufacturer's 'Handbook for Use'

WARNING: When using the isolated stimulator with human participants, take extra care not to cross the heart's axis with the stimulating current. This will happen if the ground stimulator output positive lead comes into contact with one side of the body (e.g. left), while holding the ground lead to the other side (i.e. right).

When using the stimulator with human beings, please pay attention to where the body electrodes are placed.

Although the manufacturers of the stimulators provide no recommended schedule for maintenance or review, the departmental technician checks the apparatus for technical faults once every academic year.

5.5 GUIDELINES FOR CONDUCTING RESEARCH IN NEUROSCIENCE

5.5.1 General Safety Issues

All personnel working in the neuroscience labs should consult their supervisor for guidelines and training details.

5.5.2 Working with laboratory substances

All laboratory equipment, chemicals and surgical implements should be handled with care and attention. Particular attention should be given to needles, blades etc.

- Please ensure that all sharp instruments and needles are disposed of properly and carefully after use (in the yellow sharps bucket provided).
- Do not leave any sharp items uncovered or unattended.
- Procedures for carrying out injections (as per the guidance provided in the LAST-Ireland course) should be followed.
- Protective clothing should be worn when handling sharp items or chemicals.

General procedures for working with chemicals are briefly outlined below.

- Use the safest chemical possible for the job.
- Read the label and safety data sheet before opening the package and take note of any hazard symbols.
- Handle all chemicals with care.
- Avoid the inhalation of vapours or dust.
- Always wear protective clothing
- Do not eat or drink when working with chemicals
- Wash your hands before and after use.
- Do not dump chemicals in the soil, or in a sewer. Chemicals should be disposed of according to the manufacturer's recommendations.
- All chemicals should be stored according to the manufacturer's recommendations.

All laboratories are equipped with a First Aid kit for use in the event of an occurrence in the laboratory. The laboratory supervisor must ensure that this is stocked as detailed above; therefore use of the kit by anyone working in the lab should be reported to the supervisor to ensure that items are replaced as needed.

Research conducted at secondary sites

Researchers carrying out research in other institutions must follow that institution's Code of Practice.

Finally, if you have any questions about any of the above material, please consult your research supervisor.

**Declaration in relation to
Guidance for Safe Working Practice in Psychological Research**

I declare that I have read and understood the document '*Guidance for safe working practice in psychological research*'. I agree to abide by these guidelines, and acknowledge that, if I breach these guidelines, I will be unable to complete my research.

Signed.....

Name.....

Date.....

N.B. A copy of this form is available from the departmental office. Please obtain a copy, complete it and return to one of the EAs. Thank you

Appendix 11 – List of Publications and Presentations

Publications

- **Bracken-Scally, M.,** McGilloway, S., & Mitchell, J.T. (Accepted). Perceptions of retirement policies and support for emergency service personnel: Improving the retirement transition. *Canadian Journal on Aging*
- **Bracken-Scally, M.,** McGilloway, S., Gallagher, S., & Mitchell, J.T. (2014). Life after the Emergency Services: An Exploratory Study of Well Being and Quality of Life in Emergency Service Retirees. *International Journal of Emergency Mental Health and Human Resilience*, 16(2), 44-51

Presentations

- **Bracken-Scally, M.,** McGilloway, S., & Mitchell, J.T. The Forgotten Helpers? Life After the Emergency Services. *Social Sciences Publication Festival*. Maynooth University, Co Kildare. 27th January 2015
- **Bracken-Scally, M.,** McGilloway, S., & Mitchell, J.T.. The Experiences of Emergency Service Retirees. *15th Healthcare Interdisciplinary Research Conference & Student Colloquium*. Trinity College Dublin, Co Dublin. 4-6 November 2014
- **Bracken-Scally, M.,** McGilloway, S., & Mitchell, J.T.. Life after the emergency services: health and well being post-retirement. *The British Psychological Society Northern Ireland Branch 2014 Annual Conference*. La Mon Hotel and Country Club, Castlereagh, Co Down. 3-5 April 2014
- **Bracken-Scally, M.,** McGilloway, S., Mitchell, J.T., & Gallagher, S. Quality of Life and Trauma Symptoms in Emergency Service Retirees. *43rd Annual Conference of the Psychological Society of Ireland*. Radisson Blu Hotel, Sligo. 7-9 November 2013.
- **Bracken, M.,** McGilloway, S., Mitchell, J. T., & Gallagher, S. How and why does trauma exposure in emergency personnel impact quality of life in retirement? *Psychology, Health and Medicine 10th Annual Conference*. Dublin City University, Dublin. 1 May 2013
- **Bracken, M.,** McGilloway, S., Mitchell, J. T., & Gallagher, S. Quality of Life in NAS Retirees: Overview and Preliminary Findings. *National Ambulance Service CISM Seminar 2012*. Maynooth University, Co Kildare. 16 November 2012
- **Bracken, M.,** McGilloway, S., Mitchell, J. T., & Gallagher, S. Quality of Life in Fire Service Retirees: Preliminary Findings. *13th Annual Interdisciplinary Research Conference: Optimising Health in the 21st Century*. Trinity College Dublin. 7-8 November 2012
- **Bracken, M.,** Gallagher, S., McGilloway, S., & Mitchell, J. T. Experiences of Emergency Service Personnel in Retirement: Research in Development. *41st Annual Conference of the Psychological Society of Ireland*. (Poster). Galway Bay Hotel, Salthill, Co Galway. 10-13 November 2011.
- **Bracken, M.,** Gallagher, S., & McGilloway, S. Quality of Life in Retired Emergency Service Personnel: Research in Development. *Psychology, Health & Medicine 8th Annual Conference*. (Poster). NUI Galway, Co Galway. 4 April 2011.