A qualitative exploration of traumatic experiences and coping strategies amongst firefighters in Dublin Fire Brigade and their attitudes to support services

By

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TABLE OF CONTENTS

ACKNOWLEDGEMENTS ............................................................................................................. 5
ABSTRACT ....................................................................................................................................... 6
CHAPTER 1: INTRODUCTION ....................................................................................................... 7
  1.1 Background ............................................................................................................................ 7
  1.2 Scope and Objectives ............................................................................................................. 9
CHAPTER 2: LITERATURE REVIEW ............................................................................................ 10
  2.1 Introduction ........................................................................................................................... 10
  2.2 Trauma and Traumatic Incidents .......................................................................................... 10
  2.3 Factors influencing traumatic experiences ............................................................................. 13
    2.3.1 Sources of Occupational Stress (SOOS) ....................................................................... 13
    2.3.2 Personality Variables .................................................................................................... 14
  2.4 Coping Strategies .................................................................................................................. 15
    2.4.1 Attachment Style ............................................................................................................ 18
  2.5 Reactions to Traumatic / Critical Incidents ......................................................................... 19
  2.6 Posttraumatic Stress Disorder (PTSD) .............................................................................. 20
  2.7 Support Services .................................................................................................................. 21
  2.8 Current Study ........................................................................................................................ 22
CHAPTER 3: METHODOLOGY .................................................................................................... 24
  3.1 Introduction ........................................................................................................................... 24
  3.2 Research Method .................................................................................................................. 24
  3.3 Participants ............................................................................................................................ 25
  3.4 Research Procedure ............................................................................................................... 26
  3.5 Research materials ................................................................................................................ 27
  3.6 Data Analysis ........................................................................................................................ 27
  3.7 Ethical Considerations .......................................................................................................... 27
  3.8 Conclusion ............................................................................................................................. 29
CHAPTER 4: FINDINGS ................................................................................................................. 30
  4.1 Introduction ............................................................................................................................ 30
  4.2 Types of incidents that are experienced as traumatic ............................................................ 30
    4.2.1 Incidents involving children .......................................................................................... 30
    4.2.2 Incidents of suicides .................................................................................................... 31
4.2.3 Incidents that trigger an emotional response ................................................................. 31
4.2.4 Ambulance duties ........................................................................................................... 32
4.2.5 Media / public scrutiny .................................................................................................... 32
4.3 Factors influencing experience of traumatic incidents ....................................................... 33
4.3.1 Exposure and experience ............................................................................................... 33
4.3.2 Training and skills .......................................................................................................... 33
4.3.3 Team work ...................................................................................................................... 34
4.4 Impact of traumatic incidents ............................................................................................ 34
4.4.1 Flashbacks and difficulty sleeping .................................................................................. 34
4.4.2 Desensitised .................................................................................................................... 35
4.4.3 Emotions and behavioural changes ............................................................................... 35
4.5 Coping Strategies ................................................................................................................ 35
4.5.1 Peer support .................................................................................................................... 36
4.5.2 Self care strategies ........................................................................................................... 36
4.5.3 Self appraisal and self efficacy ...................................................................................... 36
4.6 Knowledge of support services available ........................................................................... 37
4.6.1 Formal support services ................................................................................................. 37
4.6.2 Counselling in the Fire Service ...................................................................................... 37

CHAPTER 5: DISCUSSION ............................................................................................................. 39
5.1 Introduction .......................................................................................................................... 39
5.2 Experience of Traumatic Incidents ..................................................................................... 39
5.2.1 Critical Incidents ............................................................................................................. 39
5.3 Factors influencing traumatic experiences ........................................................................ 41
5.3.1 Training and Competence .............................................................................................. 42
5.3.2 Exposure and Experience ............................................................................................... 43
5.4 Coping Strategies ................................................................................................................ 44
5.4.1 Peer support .................................................................................................................... 44
5.4.2 Cognitive and Behavioural Strategies ............................................................................. 46
5.4.3 Ineffective coping strategies .......................................................................................... 47
5.5 Support Services .................................................................................................................. 48
5.6 Counselling in the Fire Service ............................................................................................ 49
5.7 Strengths and Limitations .................................................................................................... 51
5.8 Recommendations for further research ............................................................................. 51
5.9 Conclusions ........................................................................................................................ 52
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ABSTRACT

Exposure to trauma constitutes a large part of emergency service work and emergency workers are not immune to the effects of dealing with trauma. The purpose of this research project was to gain a deeper understanding of how firefighters in Dublin Fire Brigade experience traumatic incidents. It also explored coping strategies, support services and the Dublin firefighter’s attitude towards counselling in the fire service. A sample group of six firefighters were interviewed using semi-structured qualitative interviewing procedures and the data was analysed using thematic analysis. The findings of this researched revealed that firefighters experience certain types of critical incidents as disturbing. In addition it indicated that there is a strong subjective component to reactions to trauma and a critical incident in this regard is not so easily defined. This study also found that the previously unresearched dual role (firefighter / paramedic) of the Dublin firefighter increases exposure and self efficacy due to the high levels of incidents and additional skills. The findings also caution that the high level of exposure on ambulance duty is not recognised by the organisation in terms of providing appropriate interventions if required. The findings also revealed the importance of peer support as a positive coping strategy particularly the senior serving members. In the main firefighters have developed adaptive coping mechanisms that mitigate against symptoms of psychological distress. The participants in this study favoured informal peer support as the first means of support. All participants were aware of the formal support services such as Critical Incident Stress Management. The individuals felt that this service was widely underutilised and that firefighters would benefit from an enhanced service that includes counselling. Awareness of mental health issues have developed but needs to become embedded in the culture of the organisation.
CHAPTER 1: INTRODUCTION

1.1 Background

Dublin Fire Brigade (DFB) provides the fully integrated Fire, Emergency Medical Service (EMS) and Emergency Rescue Service for Dublin City and County. It is the largest full time brigade in the country serving an area of 356 square miles, with a population of 1.3 million and 468,122 households. To facilitate the provision of this service DFB employs over 900 personnel working in 6 districts with 12 full-time stations, 2 retained (part-time) stations and ancillary services. DFB like similar services worldwide has expanded and developed the service to include a diverse range of emergency responses that meet the changing local and international environment. Along with fighting fires and responding to EMS incidents, DFB also responds to incidents involving Water Rescue, High Line Rescue, Transport Accidents, Chemical Incidents and Marine Emergency Response. All of which constitute typical responses of a modern Fire Service (European Agency for Safety and Health at Work [EU-OSHA], 2011).

DFB operates a fully integrated fire-based EMS system which is unique in Ireland and Britain, although this dual service is operated in other countries internationally. An ambulance is based at each whole-time station with the exception of one station. In addition all DFB front line appliances carry medical equipment to carry out pre hospital emergency medical / cardiac interventions. All DFB firefighters are also trained as paramedics and rotate from fire to emergency ambulance duties.
This research project will place emphasis on the dual role of Dublin firefighters, as a large portion of the emergency response calls responded to by the firefighters are Emergency Medical Incidents, see figure 1.1.

![Figure 1.1 Dublin Fire Brigade Statistics](image)

The horrific events of September 11th, 2001 and other tragedies/catastrophes have highlighted the often particularly traumatic experiences that front line workers are exposed to. Exposure to trauma constitutes a large part of emergency service work, no one is immune to the effects of such exposure, and although firefighters may have developed a tolerance to traumatic situations this does not mean that they will not also become traumatised (Lavan & McManamly, 2003; Beaton & Murphy, 1994; Saari, 2005).
Firefighters also work unsocial hours in a demanding work environment where they are often exposed to physical and psychological pressures and may be subject to violence as a direct result of their occupation (EU-OSHA, 2011; Harris, Connolly & O’Boyle, 2008; Haugen, Evces & Weiss, 2012).

1.2 Scope and Objectives

Paton (1996) stated that there is a definite need to explore and understand the nature of traumatic incidents and their impact on emergency services staff, in order to better appreciate the possible psychological and physiological effects. There are a plethora of international studies on the effects of responding to traumatic incidents, but not as yet on DFB. Previous studies with different aims and objectives have been conducted in the Brigade, for example, a study on violence in the workplace and occupational stress in the Control Centre (Harris et al., 2008). Bearing this in mind the aim of this research project is to explore and extend knowledge about firefighters perceptions of the effects of dealing with traumatic experiences, and consequences if any. To investigate the coping strategies employed by them to combat work related stress and gain insight into the lived experiences of these firefighters. It will also consider to what extent Dublin firefighters feel their mental health needs are being met and what their view is of counselling within the Fire Service.
CHAPTER 2: LITERATURE REVIEW

2.1 Introduction
This chapter will present a synopsis on the relevant research and literature on the experience of trauma and coping strategies amongst the Emergency Services. As Dublin firefighters respond as both paramedics and firefighters, the literature includes studies and references to paramedic / ambulance responders.

2.2 Trauma and Traumatic Incidents
The concept of trauma was first introduced to psychology by Sigmund Freud, where he described psychological trauma as an overwhelming flood of stimuli to the mind that cannot be processed normally, resulting in distress (Freud, 1916-1917). Turnbull (2011) in discussing psychological trauma traces its origins back to Herodotus (Ancient Greece), Homer in the Iliad and later in Shakespearean works. Turnbull concludes that as a result of its prevalence throughout history, it is “part of the human condition” (2011, p. 83). The generally accepted definition of trauma and its symptoms is that it is caused after a person experiences what they perceive as a life-threatening or overpowering event, which would be classified outside the range of normal human experience, (Herman, 1992; Levine, 1997; Rothschild, 2000). That is not to say, if a person has gone through such an incidence that they will be traumatised by that experience, each individual is different, life experience (particularly early childhood), genetics, support mechanisms, environmental aspects are all factors in determining a person’s response to such an event.
Firefighters regularly encounter incidents that would generally be considered outside the range of normal human experience, removing burnt bodies, rendering aid to seriously injured and general exposure to traumatised victims are but some of the situations they deal with. However they are not consistently distressed or traumatised by these events.

According to the current version of the DSM-IV-TR (2000) the criteria of a traumatic event pertaining to Post Traumatic Stress Disorder criteria include involvement in, witnessing, or learning about actual or threatened death, injury, or threat to physical integrity of a family member or close associate (DSM-IV criterion A1), and a response of intense fear, horror or helplessness (DSM-IV criterion A2). Although there is a high level of exposure to traumatic incidents, would these criteria apply to firefighters in the normal course of their work? According to research only a minority of incidents are experienced as stressful or traumatic and reactions vary from high to low (Halpern, Gurevich, Schwartz & Brazeau, 2009; Meyer, Daly, Zimmering, Knight & Kamholz, 2012; Moran, 2001).

In terms of Emergency Service workers Mitchell (1983) devised the term Critical Incident as “any situation faced by emergency personnel that causes them to experience unusually strong emotional reactions which have the potential to interfere with their ability to function either at the scene or later” (p. 36). Examples of incidents that would fall into this category are:

- In the line of duty death or serious injury of a colleague
- Death or serious injury to a child
- Threat of violence or personal injury
- Severe injury and death
- Extreme incidents and multiple deaths
- A feeling of helplessness at an incident
- Excessive media interest in a case


These types of traumatic stressors are what distinguish emergency service workers from virtually all other occupations. For example in the Dublin context the tragic Stardust Fire of 1981, where 48 teenagers lost their lives would beyond doubt constitute a critical incident. Beaton, Murphy, Johnson, Pike and Corneil (1999) found in their research of 173 firefighter / paramedics that there were five particular components to an incident that categorised it as a stressor; their findings are almost identical to the descriptions above. In their study on the management of Critical Incident Stress on Dublin firefighters (Gallagher, Bracken & McGilloway, 2011) the three most common incidents that required support were:

- Witnessing someone being badly injured or killed while on duty
- An act of violence or threat of violence while responding to an incident
- Attending a cot death

This corresponds with international research on the types of incidents that can cause psychological distress for firefighters. In addition in this study the fourth most prevalent incident was “a particularly disturbing suicide” (Gallagher et al., 2011, p. 8). This correlates with the evidence that smaller scale, less sensational events can trigger an emotional response.
In particular, incidents involving violence or death of a child and also events that strike a chord of emotional resonance for the first responder (Clohessy & Elders, 1999; Halpern et al., 2009; Regehr & Bober, 2005). This supports the widely agreed viewpoint that there is a strong subjective component to reactions to trauma.

2.3 Factors influencing traumatic experiences

It is illustrated in Bronfenbrenner’s model of the environment that in order to understand individual development, it must be viewed within the entire ecological system that affects it. An individual’s development is influenced by its family system and they in turn are influenced by the wider environment and systems beyond them (Sugarman, 2001). According to Regehr and Bober (2005) when discussing traumatic experiences for emergency service workers they must be understood in the wider context of the individual that includes their family life, life experience, interrelationships, personality, strengths and weaknesses, workplace factors and a changing socio-political environment. Saari (2005) asserts in this regard, that there are a number of factors that raise a professional’s window of tolerance to the traumatic experience. These include training, experience, exposure and self-selection (for the role).

2.3.1 Sources of Occupational Stress (SOOS)

Harris et al., (2008) conducted a study on occupational stress in the East Region Control Centre which is operated by fulltime Dublin firefighters and found that respondents reported high levels of psychological distress (45%). These levels when compared to the general populace are considerably higher.
Although this research project is specifically reviewing traumatic experiences, it is understood throughout that along with critical incidents firefighters are subject to the effect of ongoing work stressors which may impact on their psychological well being. Dahlan, Malek, Mearns and Flin (2010) conducted studies on both UK and Malaysian firefighters which examined the relationship among sources of stress and job satisfaction and psychological well-being. They reported that SOOS have significant correlations with psychological well-being and job satisfaction. Similarly Beaton and Murphy (cited in Dahlan et al., 2010) also found negative correlations between SOOS and job satisfaction. Bennett et al., (2005) correspondingly reported that organisational stress contributed to levels of stress and depression amongst emergency ambulance personnel.

2.3.2 Personality Variables

A number of studies have been carried out on the possible relationship between the development of symptoms of Posttraumatic Stress Disorder (PTSD) and personality characteristics and traits. Regehr, Goldberg, Glancy and Knott (2002) conducted research on PTSD symptoms and disability in paramedics and found that the “strongest predictor of availing of Mental Health Stress leave was the personality characterised by egocentricity, suspiciousness, hostility, and manipulation” (p. 957), suggesting that there is relationship between personality variables and trauma reactions. Similarly Heinrichs et al., (2005) found that high levels of hostility and low levels of self efficacy were a strong predictor of the development of PTSD symptoms in their study.
Locus of control and self efficacy are also two factors that have been researched in terms of firefighters subjective reactions to traumatic incidents. A person’s locus of control refers to their belief that they can control a situation or that control is outside of themselves (Regehr & Bober, 2005). This has implications for firefighters at an incident who maintain the belief that they can control outcomes and therefore manage the experience more effectively. In a study on Northern Ireland firefighting personnel, greater psychological distress was found to be associated with an external locus of control (Brown, Mulhern & Joseph, 2002). Conversely studies on emergency response workers that report high levels of self efficacy (the belief in one’s own ability to carry out a task) and self appraisal have repeatedly demonstrated lower levels of psychological distress and reduced PTSD symptoms (Bryant & Guthrie, 2007; Heinrichs et al., 2005; Prati, Pietrantoni & Cicognani, 2010; Regehr, Hill, Knott & Sault, 2003).

In summary there are many variable factors that will influence a firefighters response to a traumatic experience, it is not as simple as setting out a given criteria of critical incidents and devising appropriate measures to deal with the reactions to these particular incidents. A deeper understanding is achieved by taking into consideration the many aspects that encapsulate the traumatic experience.

2.4 Coping Strategies

Another aspect that is strongly linked to an individual’s vulnerability to traumatic events is their coping strategy. People through life experience and their environment have learnt various different mechanisms both adaptive and maladaptive to cope with life.
Coping is defined as “constantly changing cognitive and behavioural efforts to manage specific external and / or internal demands that are appraised as taxing or exceeding the resources of the person” (Lazarus & Folkman, as cited in Milen, 2009, p. 41). Coping strategies influence a person’s psychological well being and is important in determining the quality of their adjustment after exposure to a critical incident (Dahlan et al., 2010). The personality variables set out above are influencing factors of both the affect of the trauma and the coping strategy employed by the firefighter / paramedic. For example Regehr and Bober (2005) stated that people with a strong belief in their ability to cope or self-efficacy were associated with lower levels of distress after exposure. Similarly Herman (1997) reported from studies on diverse populations, that those people more resistant to the impact of traumatic events were highly social with a strong internal locus of control.

Many of the studies previously mentioned and others have also included analysis of coping strategies in their research and conflicting information has been presented. Regehr and Bober (2005) concluded that in general firefighters are proficient at developing and using effective coping strategies. In contrast Milen (2009) found in his sample of 115 firefighters that they did not effectively use coping strategies. It should be noted that the former research consisted of a larger cross section of participants. Across the literature different terminology is used to describe the types of effective strategies including approach coping, adaptive and positive. Examples are; support seeking, cognitive and behavioural strategies (problem focus / emotion focus), spirituality, foster positive attitudes and humour.
Conversely less effective strategies are referred to as avoidant coping, negative and maladaptive, examples include avoidance / disassociation, distraction, substance misuse, isolation, self blame, emotional venting (Brown et al., 2002; Clohessy & Ehlers, 1999; Dahlan et al., 2009; Nydegger, R., Nydegger, L., & Basile., 2011; Prati et al., 2011).

The use of maladaptive coping strategies, particularly cognitive and behavioural avoidance are shown to be associated with higher levels of distress and in some cases increased PTSD symptoms in firefighters and ambulance personnel (Beaton et al., 1999; Brown et al., 2002; Clohessy & Ehlers, 1999; Prati et al., 2011). Prati et al. (2011) also found that the positive effect of adaptive coping strategies was only partially supported. Another interesting finding demonstrated that years of service as a firefighter were not associated with the use of more positive coping mechanisms (Nydegger et al., 2011). A possible link can be drawn between this finding and Regehr and Bober’s (2005) finding that levels of self-efficacy also decreased over years of service, in terms of the negative impact of continued exposure or other unknown variables. Long term cumulative exposure can also have a damaging effect of traumatic stress memory build-up, just needing the slightest trigger to reach a tipping point. Van der Kolk (1994) states that “intense emotions at the time of the trauma initiate the long-term conditional responses to reminders of the event”. As emergency responders are at most risk of being confronted with frequent traumatic events, this is an important consideration with regard to cumulative exposure.

Finally, much of the literature posits that firefighters are a resilient group of individuals with specific traits that enable them to cope with their occupations.
2.4.1. Attachment Style

It is widely believed by many trauma theorists that early life experience particularly the early relationships with the primary care giver can have significant and long lasting effects on an individual, in particular to their way of relating to others. Gerhardt (2004) suggests that the “key systems that are established in early life are central to the capacity to recover from intensely challenging experiences” (p. 136). Attachment theory initially described by Bowlby and expanded on later by Ainsworth categorised the attachment into four different patterns. Firstly the secure attachment where the mother is viewed as a secure base from which the infant can explore the world and thereby develop inner confidence and an ability to engage with others. The next three are insecure attachment relationships: - insecure / avoidant, insecure / ambivalent and insecure / disorganised (Crain, 2005).

A considerable amount of research has been carried out on adult attachment styles but few on firefighters / paramedics. It is interesting to briefly include this current theory to the experience of the first responder. According to Landen and Wang (2010) adult attachment style in particular the secure base concept is particularly relevant when discussing firefighter psychological well being and psychosocial functioning. Halpern et al. (2010) in study of ambulance workers found that insecure attachment styles in particular insecure / avoidant were associated with “acute distress after critical incidents and current emotional difficulties”, and in the long term were associated with more severe mental health issues (p. 57). Of particular relevance was the finding that this attachment style may also lead to unhelpful coping strategies (less support seeking and substance use).
Similarly Landen and Wang’s (2010) research on a firefighter sample also found that avoidant attachment had a significantly negative effect on coping in the area of support seeking. These findings support attachment theory that those with avoidant attachment styles will be less secure in their own ability to cope and are less likely to seek social support.

2.5 Reactions to Traumatic / Critical Incidents

Beaton and Murphy (1994) stated that those who help, respond and administer to those in crisis situations are by the nature of their jobs at risk of experiencing secondary trauma stress. The majority of firefighters / paramedics may experience stress during the course of their careers, but this may not necessarily lead to development of any mental health disorders, but instead may lead to onset of various symptoms as set out by the European Agency for Safety and Health at Work (EU-OSHA, 2011):

- Emotional Reactions including anger, shock, guilt, powerlessness, numbing of emotions
- Cognitive Reactions including difficulty concentrating, memory loss, disorientation
- Physical reactions such as tension, fatigue, hyperarousal
- Psychosocial reactions of avoidance, distancing from peers, distrust

These normal stress reactions should fade after a period of a month after the incident, however if these symptoms continue beyond a month the individual may develop an acute stress reaction, posttraumatic stress disorder or another serious mental health disorder (EU-OSHA, 2011).
2.6 Posttraumatic Stress Disorder (PTSD)

It is now widely believed that firefighters / paramedics are at high risk of developing PTSD, not necessarily as a result of one critical incident but also as a cumulative effect and build up of exposure to critical incidents throughout years of service (Beaton et al., 1999; Bennett et al., 2005; Chamberlin & Green, 2010; Moran & Britton, 1994; Nydegger et al., 2011). Conversely no relationship was found between years of service and the prevalence of PTSD symptoms in other studies on trauma exposed firefighters (del Ben, Scotti, Yi-Chuen, & Fortson, 2006; Meyer et al., 2012). According to Rothschild (2000, p. 6.) “PTSD is complex psychobiological condition”, characterised by three types of symptoms: 1) re-experiencing the event, 2) avoidance and numbing of effect and 3) hyperarousal of the Automatic Nervous System.

Numerous studies have been conducted on the prevalence of PTSD symptoms in firefighters and the results have varied quite significantly. The most recent and comprehensive study on the worldwide current prevalence of PTSD in rescue workers which included firefighters, police and paramedics found, a prevalence of approximately 10% for full PTSD, compared to 1.3 to 3.5% in the general population (Berger et al., 2012). This study also found that ambulance personnel had the highest prevalence of PTSD symptoms, other studies have also reported higher levels of PTSD in ambulance workers 22% (Bennett et al., 2005; Clohessy & Ehlers, 1999). This could be understood in that ambulance workers are consistently exposed to pressure and stressful situations. In the case of Dublin fighters in their dual role, as they do not work as emergency paramedics consistently, would this be a mitigating factor in the possible development of acute stress and or PTSD. Alternating duties and working in a larger social microcosm may positively affect mental health.
Interestingly Haugen et al. (2012) have noted that one of the proposed revisions to the DSM-5 under PTSD, includes reference to the frequency and severity of exposure to traumatic incidents and uses an example of a first responder to illustrate same. This would imply even with conflicting data that the frequency and nature of exposure is a matter for consideration, however it also highlights the need to include in this research project, the coping strategies and possible levels of resilience amongst firefighters as mitigating factors in the development of acute stress reactions and PTSD.

2.7 Support Services

Across the literature Critical Incident Stress Debriefing (CISD) and or Critical Incident Stress Management (CISM) is referred to as the most prevalent support mechanism available to emergency responders. CISM has its origins with Mitchell who has been one of the most prolific writers and exponents of CISM (Lavan & McManamly, 2003). It is a system of interventions designed to prevent, monitor and or mitigate against symptoms of psychological distress. A typical CISD consists of a post incident group meeting of those involved, the aim of which is to provide information and learning, appraisal, share common experiences and support. It is generally but not always conducted by a trained peer supporter, as is the case in DFB. It is also an opportunity to discuss reactions and feelings which can be validated and normalised (Lavan & McManamly, 2003; Regehr & Bober, 2005). The study conducted on Critical Incident Stress in DFB (Gallagher et al., 2011) concluded that CISM was generally positively viewed but underutilised with a need to improve general awareness.
There is however much debate on the efficacy and appropriateness of CISD across the literature with both positive and negative viewpoints expressed. Regehr and Bober (2005) refer to both the benefits and potential adverse consequences of debriefing. From a positive perspective it does, as outlined above, provide support and information. Alternatively though it may not be effective in symptom reduction and can exacerbate distress. Deahl (2000) reached a similar conclusion in his review of psychological debriefing concluding that at best it provides hope and understanding and at worse may adversely affect some individuals. Suffice to say there is conflicting research findings, a more comprehensive meta-analysis found that there was no evidence to suggest that either CISD or non CISD interventions improve the natural recovery mechanisms of those exposed to traumatic incidents (van Emmerik, Kamphuis, Hulsbosch & Emmelkamp, 2002). What does seem evident is that debriefing should form part of an appropriate and comprehensive stress management system which also includes further follow up, practical support, early detection of symptomology and referral to a mental health professional. Finally in this regard what is a common thread amongst the literature is the vital importance of peer support particularly amongst firefighters (Creamer et al., 2012; Regehr & Bober, 2005). Group cohesiveness and a sense of high morale amongst peers, provides for many a vital support network.

2.8 Current Study

There is a plethora of literature on the nature of traumatic experiences in emergency service workers and as a particularly valued but often times unappreciated group of society, there is a need to explore, gain a deeper understanding and appreciation of the impact on their psychological well being.
This research explores their experience of traumatic incidents and the coping mechanisms that they have either inbuilt or adapted to deal with this experience. The research also endeavours to investigate the support services available and the attitudes of the fire service towards counselling. The main focus of this study is to undertake this from the perspective of the firefighters / paramedics of Dublin Fire Brigade.
CHAPTER 3: METHODOLOGY

3.1 Introduction
This chapter will outline the methods used to carry out this research. It will explain the reason for taking a qualitative approach that includes the use of semi structured interview and qualitative analysis to examine the data. This section will also introduce the participants; the procedures adopted and consider the ethical implications of this study.

3.2 Research Method
The overall aim of this research project is to gain insight into the working world of the Dublin firefighter and provide a deeper understanding of the nature and meaning of their experience particularly in relation to traumatic incidents. Therefore a qualitative approach has been chosen. Unlike quantitative research which is concerned with measuring and quantifying a given phenomena, according to McLeod (2008) the aim of qualitative research is to focus on the processes and experiences that an individual goes through and understand how they assign meaning to such experiences. Considering the uniqueness of the role of the firefighter and the nature of their work life, a qualitative approach allows the researcher to explore their experience at a deeper level in their natural setting. Dallos and Vetere (2005) also state that this method gives a voice to the participants with their descriptions of a given phenomenon, which in turn allows for a deeper emphasis on subjectivity. Examining both their experience of traumatic incidents and the coping strategies employed by them to combat work related stress and traumatic incidents from this qualitative perspective, will also give a deeper understanding of the potential impacts that may provide material for future consideration.
The qualitative approach, according to Landridge (2004) can “produce unexpected insights about human nature through an open-ended approach” (p. 15). Crucially this allows for a flexible approach through which additional topics may emerge that provide further insight. This form of research is not rigid and aims to capture the essence of the experience through qualitative data collection methods.

Semi structured interviews were used to conduct this research, as the main purpose of such interviews is to “describe and understand the central themes the person experiences”, they were considered the most effective to elicit the relevant information (McLeod, 2008, p. 75). This form of interviewing also allows a deeper exploration of issues that may be too complex to probe through quantitative methods (Banister, Burman, Parker, Taylor and Tindall, 1994). McLeod (2008) also states that this form of qualitative research interview can be a positive experience for the researcher, which was the case for this researcher, in gaining a richer and in depth account of the working life of the Dublin firefighter.

3.3 Participants

Six participants took part in this research, all operational firefighters in DFB. The participants comprised of five men and 1 woman. Although only 4% of the operational workforce in DFB is female, it was important to include a gender ratio in the participants. Their years of service in the brigade ranged from three to thirty four years.
3.4 Research Procedure

In the first instance the researcher contacted the Chief Fire Officer, DFB and obtained the necessary permission to conduct the research in the organisation and approach staff members. This permission was received in writing (Appendix A). The researcher then contacted the participants and explained the nature of the research project and the process that it would entail. The interviewees were subsequently emailed information sheets and the questions that would be asked (Appendix B & C), to allow the participant’s time to reflect on the material prior to interview. The researcher arranged times, dates and suitable venues to conduct the interviews. All interviews were conducted in private considering the sensitive nature of the material that would be discussed. The purpose of the research was again explained prior to commencement of the interviews. Each participant was informed that they were being recorded according to ethical guidelines, and that they had a right to withdraw from the study. They were also informed that their identity would not be disclosed and that anonymity would be guaranteed.

The questions for the interviews were compiled by identifying the main themes in the literature review, so as to maintain relevance and connectivity with the aims of this research. The questions were divided into four sub headings; experience of dealing with traumatic incidents, coping strategies, support services and attitudes to counselling. Each interview commenced with a demographic question enquiring the length of service in Dublin Fire Brigade. They were each then asked all the interview questions, subsequent questions were asked for clarification purposes. Each participant was thanked at the end of the interview and an enquiry was made as to their readiness to leave the room.
3.5 Research materials

A digital Dictaphone was used to record each interview. Each participant was asked to give consent to be recorded and for the material to be used in the research project. The interviews were subsequently uploaded onto a laptop and transcribed within a short timeframe, then saved and password protected.

3.6 Data Analysis

Thematic analysis was used as the method for identifying, analysing and compiling the themes from the data. A thematic analysis is a qualitative approach to data analysis that avoids imposing meaning on the data collected and emphasises meaning for the participants. It allows the researcher to organise and describe the data and interpret various aspects of the research topic. The transcripts were read and re-read to familiarise the researcher with the data, initial ideas were noted. The data was then organised in a systematic way by coding large amounts of data into meaningful groups. At this point patterns and themes emerged from the coded data and these were identified and captured. According to Braun and Clarke (2006) a theme encapsulates important information in relation to the research question, at this point the themes were edited and refined, under the headings of themes and sub themes.

3.7 Ethical Considerations

As this was a professional organisation and the information being asked of the participants was of a potentially sensitive nature, it was crucial to receive the appropriate permissions from the Chief Fire Officer.
Equally the consent of the participants was also essential and in this regard each interviewee was provided with detailed consent form on the research (Appendix D). They were also informed that they would not be identified in the material, and that the material gleaned was solely for the purposes of this research study. This was particularly important as the researcher works for the same organisation in a different capacity and was acquainted with some of the participants.

From this perspective the role of the researcher in this qualitative study needed to be considered and reflected on. According to Banister et al. (1994) it is important to consider the potential impact of the interviewer throughout the research process particularly on the interviews themselves. Ethical consideration must be given to the fact that the researcher was acquainted with some of the participants and their involvement could have been influenced by this factor. However it is contended that rather than hindering the process, this allowed for open and authentic engagement during the process, and had a positive and constructive effect on the information gathered.

McLeod (2008) discusses one of the frequent ethical dilemmas that are encountered during counselling research that is, the research questions triggering painful memories or material for the participant. This was a very important ethical consideration for this researcher. The interviews were conducted and handled appropriately and sensitively, ensuring the well-being of the participant. The information sheets that the participants received also contained a list of help-lines and counselling services.
3.8 Conclusion

The methodology outlined has enabled this research to focus on the subjective experiences of Dublin firefighters and gain a deeper understanding of how they assign meaning to these experiences.
CHAPTER 4: FINDINGS

4.1 Introduction
This chapter will outline the results of interviews that were conducted with six operational
firefighters, DFB, in relation to their experience of traumatic incidents, coping strategies and
their perception of support services available. The findings are explored through a range of
themes, each with sub themes and substantiated by quotations from the participants. The
interviewees are referred to as F1 - firefighter 1, F2 – firefighter 2, and so forth.

4.2 Types of incidents that are experienced as traumatic
All of the firefighters interviewed talked of the subjective nature of their experience of
traumatic incidents; F4 said “ones that you relate to your own personal experience, like a
member of your family”. They all gave examples of incidents that they attended that were
difficult for them, for example, a scene from the Stardust fire was described “she was looking
at me, no lips……all I could see were her teeth and her eyes”. However there were certain
types of specific incidents that the participants highlighted impacted on them more than
others.

4.2.1 Incidents involving children
All of the firefighters mentioned incidents that involved children as traumatic to deal with,
particularly serious injury, fatality and abuse. F1 told of how he had not yet experienced a
child fatality “only matter of time before I get one”, which illustrates how such an incident is
perceived.
F5 described a particularly traumatic incident where he removed the bodies of two children from a house fire “it was so visually impaired only til we got them out could we see how bad they were”. All the participants unanimously expressed that these types of incidents were the most traumatic to encounter, one put forward the opinion that no matter how long you work as a firefighter, you will never become immune to these types of incidents.

4.2.2 Incidents of suicides

Three of the participants described their experience of incidents involving suicide. F5 outlined this as “hangings did for some reason, you go into a house where someone is still suspended that would wake me up”. Another participant described their feeling of helplessness and frustration while dealing with an emergency call where a woman was threatening to commit suicide. One participant highlighted the increasing numbers of suicides amongst young people and how this was affecting firefighters attending the scene.

4.2.3 Incidents that trigger an emotional response

The participants described incidents that evoked varying emotions. F4 described a scene of neglect of an elderly person, with another participant portraying what he considered the unjustness of death “it’s the kind of nice people that die”. F3 recalled incidents with positive outcomes that he described as unexpected “a baby born, it affects me more”. The incidents that they described were generally not the ones of horror and gore but ones they connected to on an emotional level, which touched their humanity.
4.2.4 Ambulance duties

All of the firefighters spoke of the high level of exposure while on ambulance duty. They each spoke of the relentlessness of the work and the high level of incidents they attended. One participant described the “huge amount of stress with the ambulance service”, also while another spoke of how they enjoyed ambulance duty. Four participants also put forward their concerns regarding emergency paramedic work, which they believe creates additional psychological distress due to the high number of incidents attended. They also highlighted that some of these incidents can be traumatic to deal with and that this was often not recognised by the staff themselves or the organisation “the hidden incidents” that impact.

4.2.5 Media / public scrutiny

A number of the participants described how nowadays they find themselves under scrutiny at incidents, they are filmed and pictured more often, they described this as added pressure at incidents “under scrutiny all the time when you are trying your best, this is very traumatic”. Another new phenomenon for them was seeing an incident and themselves on social media sites such as YouTube. Intense media interest in an incident was also highlighted as causing additional stress; it can be a reminder of an incident. Likewise appearing as a witness in court can have a similar effect. One participant differed in that he experienced a sense of pride in being part of an incident that received coverage.

It is clear that there are a range of incidents that can cause distress; it was also clearly expressed by all that the majority of incidents do not affect them.
4.3 Factors influencing experience of traumatic incidents

There were a number of varying factors that the participants described as being influential on their experience of traumatic incidents. All six were unequivocal on the first three factors.

4.3.1 Exposure and experience

All of the participants emphatically stated that experience and exposure were influential factors at all incidents, particularly the high level of exposure they encounter as paramedics. There was a general feeling that the more exposure you had the better equipped you were to deal with any incident. F6 described this as “a combination of experience, dealing with these scenarios”, similarly F5 stated “cumulative exposure does help…formulating how to deal with this the next time round”. The participants all expressed the view that experience and exposure was also helpful in terms of coping.

4.3.2 Training and skills

Again all participants stated that training and a high skill set were crucial factors in their experience of incidents. One participant said “you are taught what you are going to meet” and another described how “your training kicks in”. The firefighters all felt that being well prepared and equipped enabled them to handle the majority of incidents. A number of the interviewees made reference to the additional skills of the dual role that enhanced their ability to deal with traumatic incidents.
4.3.3 Team work

The participants spoke of the significance of the crew when faced with a traumatic incident, the support, camaraderie and leadership of the team was very important. Particular attention was often drawn to the importance of the “senior man” (long serving members) in the crew. The leadership, experience and mentoring from the “senior man”, is viewed as essential by all. F4 described “a good senior man better than any officer”. A strong sense of teamwork was very evident amongst the firefighters; one also mentioned problems that may arise as a result of difficulties within the team.

4.4 Impact of traumatic incidents

The participants varied in their responses to the question of how traumatic incidents impacted on them. Some reported little impact; others reported various emotional and cognitive responses. What was common with the longer serving members was that impact lessened throughout years of service.

4.4.1 Flashbacks and difficulty sleeping

Three of the participants reported sleeping difficulties after particular incidents, F1 described “nightmares and sleepless nights” and “every time I closed my eyes for two weeks I could see the woman”. A common theme was that the incident “stayed with ya” and “playing on your mind”. This form of intrusion symptom of visual flashbacks and intrusive memories was described by all of the participants.
4.4.2 Desensitised

All of the participants were of the opinion that they “hardened”, “became colder” as they progressed in their career, as a result of cumulative exposure. This was a common thread amongst all. F5 described as being able to distance themselves from certain events, but felt that this translated to other aspects of life. One however described desensitisation as a “misconception”, that really it is a coping mechanism; this concept will be explored further in the discussion as both an impact and a coping strategy.

4.4.3 Emotions and behavioural changes

The participants expressed the view that some traumatic incidents evoked emotions that stayed with them afterwards. The emotions described include anger, helplessness, sadness and frustration. F2 speaks of an incident “that’s after sticking with me I spoke in anger about it”; another described the sadness felt after a child fatality. Four of the participants shared how their family had noticed a change in their mood; F3 said they had been unaware of this, until it was pointed out to them. This highlights the effect that this type of work can have on the family members.

4.5 Coping Strategies

The responses to the question of coping strategies varied amongst the participants. Some spoke of learning to cope, others described strategies they purposely employed. All also agreed that at an incident, training and experience are what counts. Some of the participants referred to the “drinking” that use to be a very common coping mechanism. Most of the participants felt that this was changing but expressed some concern that it may still be prevalent.
4.5.1 Peer support

One response was common amongst all that of being able to talk to your colleagues after an incident. All agreed that this was very helpful and beneficial; it was used as support, affirmation and a sharing of experiences. Four of the participants also spoke of the “black humour” amongst the crews that helped to ease tension. The longer serving members expressed concern that the station “chats” are adversely affected by new technology; games consoles and mobile phones cited as mainly responsible for this. During “down time” some firefighters were more inclined to play computer games or use their phones for social media purposes than interact with their colleagues.

4.5.2 Self care strategies

Five of the participants outlined the different ways that they had identified as coping mechanisms in both their personal\(^1\) and professional\(^2\) lives. These strategies for some are ongoing, inbuilt into their lives, and for others are used when they feel they have been affected by an incident.

4.5.3 Self appraisal and self efficacy

Five of the participants spoke of carrying out a self appraisal post incident. They questioned their performance and sought clarification from others if required. F4 described it as “I will do a debrief on myself”.

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\(^1\) These included various forms of exercise on own and as a group. Spending time with friends and family who provide support if needed. Making a conscious decision to leave work behind and not bring it home. Meeting colleagues outside work in a social context when informal chats can take place as colleagues understand better than most.

\(^2\) These included; discussing incidents with colleagues on station, seeking out those with more experience. Continuous professional development, learning new skills, gathering relevant information.
This was viewed as a helpful coping mechanism, when they felt they had performed to the best of their ability, on the other hand it also opened the door to self doubt on occasion when questioning their performance. Confidence and belief in their ability to carry out the task was a key factor, one participant expressed this as “I think it’s a confidence thing”.

4.6 Knowledge of support services available

The participants all spoke highly of “peer support” as a very useful coping mechanism. For all of the participants this was the form of support that they would use first, F2 said of senior colleagues “they were naturals – experience – wise”.

4.6.1 Formal support services

All the candidates said they were aware that Critical Incident Stress Debriefing was available to them after particular types of incidents. None of the participants had availed of this service and some would not be inclined to, one interviewee stated “I would not talk to the stress debriefers” mainly because of trust concerns. There was a general feeling expressed that it is beneficial and necessary for the organisation, particularly after significant incidents. Half of the participants also stated that some form of support service should be made available to the families of firefighters.

4.6.2 Counselling in the Fire Service

All participants expressed the view that they were aware that a form of counselling was available to them in Dublin City Council³.

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³ Dublin Fire Brigade is a department within the local authority of Dublin City Council and staff have access to support services there.
There was a sense expressed that counselling would be beneficial and was indeed required and that this should be provided by “someone inside the organisation” with a relevant qualification. Five of the participants felt that they would be better understood by a colleague and time would not be wasted explaining the terminology and nuances of the service. One participant described this as “once people have to explain [to an outsider] they stop talking about feelings”. F2 on the contrary would prefer to talk to someone outside the organisation. They were also of the view that the current support service was under resourced and that serious consideration should be given to expanding it. F4 stated “I think mental health within DFB is at breaking point and I don’t think DFB has really addressed it…..there is a job of work to be done…people are being left out there trying to deal with things on their own”.

Overall the view of the participants was that the current mental health and support services are not adequate and they should be further developed to include counselling but were of the view that this would need to be a mental health professional in the organisation.
CHAPTER 5: DISCUSSION

5.1 Introduction
This chapter will review the findings of this research into Dublin firefighters experience of traumatic incidents, the coping strategies employed by them and also explore their attitudes to counselling in the fire service. The findings will be discussed and compared with the available literature.

5.2 Experience of Traumatic Incidents
It is evident from the findings and the literature that firefighters routinely encounter events that would be considered out of the range of normal human experience. To hear one participant describing how they were allocated the task of “finding the head” at an incident of decapitation puts this into perspective. Regehr and Bober (2005) write along with others of the potential impact of traumatic / critical incidents on emergency workers but also purport that there is a considerable subjective component to reactions to trauma. This was supported from the findings of the interviews where all of the participants recounted incidents that triggered a chord of emotional resonance for them or where they felt an empathic resonance with the victim.

5.2.1 Critical Incidents
The studies and research often emphasize the impact on first responders of catastrophes and horrific incidents, as evidenced in the literature by the list of critical incidents deemed the most traumatic to deal with (EU-OSHA, 2011; Halpern et al., 2009; Lavan & McManamly, 2003; Regehr & Bober, 2005).
The findings of this study do support this to some extent, as all participants described incidents involving children, they felt, were the most difficult to deal with. However one participant described being reminded of their own daughter at an incident with a young girl of a similar age, this was the incident that resonated most with them and has “stayed with me”. Although this would be deemed a critical incident by the literature there can still be a subjective component to the incident, which can affect the severity of the reaction.

Another incident that half of the participants agreed was distressful for them, was suicide, this supports previous research conducted in DFB. Gallagher et al. (2011) reported that the fourth most prevalent incident that caused psychological distress for firefighters was a disturbing suicide. Statistics from the Central Statistics Office show that the number of suicides in Ireland increased by 7% in 2011 compared to 2010 figures (Central Statistics Office, 2011). Although attendance at incidents of suicide is part of firefighter / paramedic work, under the list of critical incidents suicide may be considered a “severe injury and death”. However, this does raise questions that the increased numbers of suicide incidents and the heightened media interest may be impacting on those responding to these incidents. Particularly as media reporting has focused on increasing prevalence of suicide amongst young people. This viewpoint was posited by one of the participants as an area that in their opinion will impact more on firefighters.

This also highlights another type of incident noted in the findings that is well supported in the literature that of an incident that receives excessive media interest (EU-OSHA, 2011; Halpern et al., 2009; Lavan & McManamly, 2003; Regehr & Bober, 2005).
An interesting theme that arose in the findings raises awareness of the effect of new technology and social media on the fire service. Obviously this is a worldwide trend not just pertaining to the fire service, where a person can unwittingly find themselves on one of the many social media websites. For a firefighter though this can have serious consequences, one participant expressed this as “on a public street everyone can see you…social media you can see comments about you….public perception is very important”. This has implications in terms of a) reminders of incidents that can be distressful, b) self appraisal – questioning of performance and c) public perception of fire service and d) excessive media interest. This appears to be relatively unstudied phenomena for emergency responders and may be a topic for further research.

The above discussion has primarily focused on the type of incidents that the firefighters in this study regard as traumatic. It illustrates that they, like emergency responders worldwide, experience particular types of critical incidents as disturbing, but it highlights that the traumatic experience cannot easily be captured in a specific list of critical incidents. Furthermore as Regher and Bober (2005) suggest the traumatic experience of emergency workers should be considered within the wider remit of their entire ecological framework.

5.3 Factors influencing traumatic experiences

The available literature purports that there are a number of factors that influence both performance and reactions to traumatic incidents. These are too numerous to report in this research, instead it will emphasise the factors that the participants found to be influential in their experiences of critical incidents.
5.3.1 Training and Competence

Regehr and Bober, (2005) and Saari, (2005), state that emergency responders are highly trained and skilled professionals, a factor that can mitigate subjective reactions to traumatic incidents. It is imperative that a firefighter / paramedic is confident in their ability to function effectively at an incident, failure to do so would undoubtedly cause psychological distress or physical injury. The participants all supported this viewpoint and all spoke of their training “kicking in” on arrival at a scene. This was unanimously viewed as a positive influencing factor when faced with any incident. This has particular implications at traumatic incidents as evidenced by the literature. Brown et al., (2002) and Regehr and Bober, (2005), contend that a persons’ belief that they can control outcomes at a disaster will enable them to function more effectively; they have what is termed a strong internal locus of control. Furthermore Bryant and Guthrie, (2007), Heinrichs et al., (2005), Prati et al., (2010) and Regehr et al., (2003) suggest that high levels of self-efficacy have repeatedly been associated with lower levels of psychological distress. This was supported in this research; the firefighters discussed their belief in their ability to function effectively, they focused on the task in hand and as one participant stated “training, drills…kick in…..so you don’t have to think of routine things to do..so you can look out for the dangers”.

What was further emphasised by these participants was their dual role, which provides Dublin firefighters with advanced skills and competence. The firefighters interviewed all were of the opinion that this enhances their performance and importantly augments their belief that they can function effectively. This researcher did not find any relevant literature that incorporated the dual role as part of the research material.
As this model is not widespread in fire services internationally, it is an area that should be considered for further research.

5.3.2 Exposure and Experience

There is conflicting evidence in the literature regarding the effect of cumulative exposure and years of service. Bennett et al., (2005), Chamberlin and Green, (2010), Moran and Britton, (1994) and Nydegger et al., 2011, suggest there is a high risk of developing PTSD symptoms as a result of cumulative exposure to traumatic incidents. On the contrary no relationship was found between years of service and the prevalence of PTSD symptoms in other studies on trauma exposed firefighters (Beaton et al., 1999; del Ben et al., 2006; Meyer et al., 2012).

This study did not specifically research PTSD in the participants, but the participants all described exposure and experience as an important aspect that they consider positively influences their experience of traumatic incidents. They all viewed exposure as a constructive and beneficial facet of their working lives, in that it partly prepared them for future incidents and helped them to cope. Particular reference was drawn to the high level of exposure to incidents as a paramedic; one participant stated that “you get more exposure quicker….its nearly an immunity to traumatic events”. Taking the contradictions in the literature into consideration, this study gives another perspective to exposure as an asset.

Studies though have also found that ambulance personnel had the highest prevalence of PTSD symptoms (Bennett et al., 2005; Berger et al., 2012; Clohessy & Ehlers, 1999).

Ambulance staff are consistently exposed to pressure and stressful situations in the course of their work and they work in smaller crews of pairs.
As previously mentioned in the dual role of the Dublin firefighter rotating from both ambulance to fire and rescue, this could be viewed as a mitigating factor against the onset of psychological distress. They also work within a larger team which equally may positively affect mental health. Again this underlines this as an area that would benefit from further study.

5.4 Coping Strategies

In the findings two of the sub themes were mentioned in both the main themes of coping strategies and influences on traumatic experiences, they are peer support and desensitisation. In order to discuss these aspects in further detail they are discussed under coping mechanisms. Regehr and Bober (2005) contend that the majority of emergency responders are proficient at developing and employing effective coping strategies to manage the events they face. This is contradicted in other studies which asserted that this was not the case, Milen, (2009). Coping strategies are important in determining the quality of an individual’s adjustment after exposure to a traumatic event. Therefore exploring this issue in this study gives a deeper holistic understanding of the experience of traumatic incidents.

5.4.1 Peer support

The literature recounts the different types of both adaptive and maladaptive coping strategies that are prevalent amongst emergency responders. These include effective mechanisms such as support seeking, cognitive and behavioural strategies, humour and the fostering of positive attitudes. Ineffective strategies refer to avoidance, disassociation, substance misuse, self blame and withdrawal (Brown et al., 2002; Clohessey & Ehlers, 1999; Dahlan et al., 2009; Nydegger et al., 2011; Prati et al., 2011).
The findings in this study support the literature. All participants were unequivocal that peer support had an extremely positive effect on coping both during and after an incident. In particular the firefighters with long service were recognized as hugely influential throughout the organisation. Their experience, mentoring, leadership and calmness appear to provide a solid backbone for the service. The participants spoke very highly of the “senior man”; this has impressed upon this researcher its central importance in DFB. Although the studies recognise support seeking as a positive coping mechanism, is the significance of the “senior man” as prevalent in other services. It may be a specific culture that has evolved in this organisation where it has gained such significant recognition. However it is also likely that it prevails in other similar services, as outlined above exposure and experience are counted as influential at traumatic incidents, thereby those with the most exposure and experience are more than likely the longer serving members.

Another area that arose in the findings was again how social media and new technology was sometimes adversely impacting on the team and equally the peer support. Group cohesion is integral to both performance and support. In this regard the crew informal chats were viewed as fundamental, however with the advent of mobile phones, game consoles and social media some individuals are more inclined to occupy themselves in a virtual world rather than the real world. This can be seen in all aspects of society and the fire service is no different, if it does have more serious adverse consequences remains to be seen.
5.4.2 Cognitive and Behavioural Strategies

One theme that repeatedly arose in the findings was “desensitised”, “numbing”, “colder”, “being able to detach”. All of the participants described this as an impact of cumulative exposure; one participant refuted it as an impact and described it as a coping mechanism, “I think…they think I’m used to it now…but what they mean is they have learnt to cope with it”. It is more than likely a product of both impact and coping. Regehr and Bober (2005) posit that firefighters deliberately use cognitive strategies that diminish the risk of developing an emotional association with a victim. This allows them to maintain both their professionalism and ability to function. It would also appear to be a necessity that allows them to continue working in this environment. This particular group of firefighters generally believed that this desensitisation occurred as a direct result of continuous exposure and as mentioned, one viewed it as a deliberate strategy of coping. Although not overtly stated, it was implicit that this desensitisation enabled them to perform effectively, particularly at traumatic incidents.

Another effective cognitive strategy employed by this group was the use of self appraisal after an incident. They stressed that it was vital for them to believe that they had done all they could at an incident. Although many people in society like to consider they have performed effectively, the potential outcome of that performance is generally not a life and death outcome, as is often the case with emergency workers. The use of self appraisal as a coping mechanism can be understood in the context of the serious potential consequences.
This notion is supported in the available literature, studies on emergency response workers, that report high levels of self appraisal have repeatedly demonstrated lower levels of psychological distress (Bryant & Guthrie, 2007; Heinrichs et al., 2005; Prati et al., 2010; Regehr et al., 2003).

5.4.3 Ineffective coping strategies

As discussed the literature suggests there are also maladaptive coping strategies used by firefighting personnel that initially may seem effective but can exacerbate psychological distress in the long term. This was not supported by this particular group of participants in relation to themselves, but some made reference to substance misuse, isolation and mental health issues amongst colleagues. Much of the literature refers to the “macho” image that is associated with firefighters and for those that may not be coping effectively this is a possible barrier to seeking help and support.

As mentioned above, desensitisation was viewed as a positive coping mechanism that the participants developed over the years of service. They appear to have become acclimatised to traumatic events and difficult imagery. It should be noted that this type of cumulative long term exposure can also have the damaging effect of a traumatic stress memory build-up and while these participants did not give evidence of this, it is a matter for consideration as this may adversely affect their mental health.
5.5 Support Services

The most widespread intervention utilised for emergency responders referred to in the literature is Critical Incident Stress Management (CISM). It is a system of interventions designed to prevent, monitor and or mitigate against symptoms of psychological distress (Creamer et al., 2012). There is also much debate about its effectiveness and concerns have been raised that it can have adverse affects. Creamer et al. (2012) contend that enhancing and protecting social support can improve an individual’s capacity to deal with traumatic events. They also found that many emergency workers used informal peer support as a matter of course throughout their work. This was supported by the findings as all the participants stated that this was their preferred choice for support. This study also concurred with a previous study on Critical Incident Stress in DFB (Gallagher et al., 2011) which concluded that CISM was generally positively viewed but underutilised. This was the view expressed by the majority of the participants with one exception. All six however concluded that CISM was not perceived as widely available and underutilised.

The participants on the whole also expressed concern that some incidents although not deemed as critical incidents, had caused distress for themselves and or colleagues and in these instances CISM was not offered. As outlined previously there is a strong subjective component to reactions to traumatic events and firefighters will be affected by incidents that are not considered “critical incidents”, there is a need for this to be considered in any peer support programme. The participants were of the view that the work on the ambulance should be given more recognition as potentially traumatic; this was strongly advocated by all.
Lavan and McManamly (2003) posit that CISM was viewed as effective by emergency responders, but that this was more an impression as there is no formal evaluation of interventions. These findings are comparable to this study in that the participants all articulated their impression of CISM in DFB. There was no literature available on evaluation of interventions in DFB to review.

5.6 Counselling in the Fire Service

Creamer et al., (2012), Deahl and Wessely (2003) and Regehr and Bober, (2005) suggest that debriefing should form part of an appropriate and comprehensive stress management system which also includes further follow up, practical support, early detection of symptomology and referral to a mental health professional. This is supported by the findings of this study with the participants of the view that the current support service requires further expansion to include counselling. Regehr and Bober (2005) maintain that such a system would benefit from the experience of a mental health professional external to the organisation, which would augment and support the peer support provisions in place.

Lavan and McManamly (2003) propose similar recommendations in their review of CISM amongst emergency responders in Ireland. As outlined a main concern of the participants was the underutilisation of support services and the inadequacy of the service. All of the participants were of the view that counselling would be beneficial to the service. This corresponds with the literature that a comprehensive stress management system should include counselling when appropriate (Creamer et al., 2012; Deahl and Wessely (2003); Regehr and Bober, 2005). London Fire Brigade for example, provides a counselling and advisory service for all its employees (London Fire Brigade [LFB], 2013).
It offers a range of counselling services to promote resilience and psychological wellbeing, including interpersonal therapy, psychodynamic, cognitive behaviour therapy and trauma-focused approaches. By the nature of their work firefighters are exposed to trauma, occupational stressors and cumulative stress, they are as the literature has purported at risk of developing acute stress reactions, PTSD or another serious mental health disorder and in these circumstances will require professional support. Although counselling is viewed as a reactive treatment, it could also in an organisation like DFB provide training and education on valuable preventative measures.

Regehr and Bober (2005) suggest that stress reduction programmes, raising cognitive awareness, behaviour change counselling and increasing coping abilities could form part of a professional and peer support programme. The participants in this study discussed coping strategies that they themselves had learned and developed. If a counselling service was in situ in DFB, it could for example, assist in providing these firefighters with additional coping skills and stress reducing techniques. Professional counsellors according to Regehr and Bober (2005) would assist in the provision of these services. As all of the participants in this study were of the opinion that the support services were inadequate, consideration could be given to developing a more comprehensive service that most importantly should become an integral part of the organisation.
5.7 Strengths and Limitations

For the purposes of this study qualitative methods were used to explore the main research questions. The six participants ranged in service from three to thirty four years which is a relatively small sample and may not accurately reflect the viewpoint of the majority of Dublin firefighters. Additional use of focus groups may have yielded a more thorough understanding of their experience. A mixed method approach of qualitative and quantitative using self report questionnaires such as the brief COPE survey might provide a more comprehensive understanding of the subject matter.

As documented there is an abundance of research material on the experience of emergency responders and this study benefited from the range of experience, knowledge and openness of the participants. This provided for this researcher an insightful and deeper appreciation of the experience of the Dublin firefighter. They also provided extensive information that both supported and conflicted with the available literature.

5.8 Recommendations for further research

The literature illustrates that all emergency responders often encounter traumatic incidents as part of their work. The effect of responding as both a firefighter and a paramedic is not well researched and further study should focus on experience of this dual role. Also the changing socio environment as highlighted, particularly the impact of mobile communications and social media on the fire service may be a source for future research.
5.9 Conclusions

In conclusion, this study has given a deeper understanding and insight into the traumatic experiences of firefighters in DFB and the coping strategies that they have developed to manage these incidents. The study has also reflected their perceptions of and attitudes towards support services in the brigade.

By and large the findings of this study are generally reflective of the available literature and research in this area; there were a number of key findings that this study highlighted. What was of particular significance was the finding that for this group of firefighters there is a strong subjective component to trauma reactions and a critical incident for them, is not necessarily one that subscribes to a given set of criteria. Their work as paramedics is a prime example of incidents that could be experienced as traumatic but not recognised as such, this subjective component should be given further consideration in terms of interventions.

Another key finding concerns the dual role which was referenced throughout by the participants under all the themes. This role in the main appears to have considerable benefits in terms of additional exposure, experience and enhanced skills and competence. However this dual role may also be considered an additional stressor with an increasing workload and responsibility. The advantages of the dual role in DFB are significant enough to warrant further consideration.
Another key finding was the significance of peer support particularly the “senior man”. Again this was another theme that was identified as influential across all the themes in terms of managing and coping with traumatic experiences. The experience, attitude and leadership of the senior staff provides invaluable guidance, support and reassurance throughout the service, this as a theme is difficult to quantify but appears to be an intrinsic component of this particular service. This finding also correlates with the importance of peer support to firefighters which was equally evidenced in the literature; it is viewed as the preferred support mechanism. This important finding can be understood in terms of the close working and personal relationships amongst colleagues, the shared common experiences, the strong group cohesiveness and the shared pride in their work. A worrying trend for the future has been the enforced increase in retirements amongst long serving members due to austerity measures in the public service; this may negatively impact on this crucial element in DFB (Dublin Fire Brigade, 2012).

Of particular note, which is a possible reflection of contemporary society, there was an openness of these firefighters to honestly discuss concerns around mental health. There was an acknowledgement of the importance of formal and informal peer support in the fire service and crucially a desire to see the formal service expanded and developed to include counselling. Although there may still be for some, a stigma attached to seeking support so as not to be viewed as vulnerable or weak, these participants would advocate further utilisation of support services. Issues of mental health are now more openly discussed through many forums and public awareness is increasing, encouragingly in the fire service there appears to be growing acknowledgement of the possible impact of their work on their mental health.
Finally as much of the research states firefighters the world over are resilient, highly trained and committed professionals. The high levels of resilience were evident in this study, as firefighters generally self select this profession, perhaps a particular personality type is more inclined towards this high risk occupation. But what is apparent to this researcher is that there are many variables that affect a firefighters experience of traumatic incidents and should be considered within their entire ecological framework.
REFERENCES


APPENDIX A

Bevin Herbert
3 Stannaway Road
Crumlin
Dublin 12

12th October 2012

Dear Bevin,

I am pleased to inform you that I am granting you full permission to carry out your research on Dublin Fire Brigade; you may approach the relevant staff members for this purpose.

I would also request a copy of your thesis on completion.

Yours faithfully

Stephen Brady
Chief Fire Officer
Dublin Fire Brigade
APPENDIX B - RESEARCH INFORMATION SHEET

Title of study: “An exploration of traumatic experiences and coping strategies amongst firefighters in Dublin Fire Brigade”.

You are invited to participate in a research project that will inform an undergraduate thesis. Please read the information below before deciding if you wish to participate.

Objectives of the study
This is an exploratory study that intends to examine Dublin firefighter’s experiences of traumatic incidents in the course of their work.

Why I have been asked to participate?
As a firefighter / paramedic in Dublin Fire Brigade, your insight into the lived experience of dealing with traumatic incidents and the coping mechanisms employed to manage these experiences will provide a deeper understanding of the issues faced by firefighters in their normal day to day work. All data will be treated in the strictest of confidence and used solely for the purposes of this research.

What does participation involve?
The process involves an interview that should take approximately 40 minutes which will be recorded. The questions will centre on your experience of traumatic incidents and the coping strategies adapted to manage these incidents. The interview will also explore your view on support services in Dublin Fire Brigade.
You will not be identified in the results or in any part of the finished project and the information gathered will only be used by the author for this research.

**Right to withdraw**

Participation is voluntary and you may withdraw at any time prior to submission of completed project that is 19th April 2013.

**Support Services**

If you feel that you have been affected by this study we could encourage you to seek help. You may consider consulting with your GP who can help you access counselling or psychotherapy. There are also a number of organisations that may provide assistance and or information.

Dublin City Council Staff Support Service: - 01 222 5140

Aware Helpline phone: 1890 303 302

Shine Helpline phone: 1890 621 631

Samaritans Helpline phone: 1850 609 090

GROW Helpline phone: 1890 474 474

National Drugs & HIV Helpline Freephone: 1800 459 459

Console Helpline Freephone: 1800 201 890

Information on these services and others can be accessed at:

http://www.mentalhealthireland.ie/information/finding-support.html
APPENDIX C – INTERVIEW SCHEDULE

Section 1: Experience of dealing with traumatic incidents

1) How long have you worked in Dublin Fire Brigade?
2) What incidents, in your experience, do you feel are the most traumatic to deal with?
3) What factors influence your experience of these incidents?
4) How do these impact on you?
5) In this context, what is your opinion of the dual role of the Dublin Firefighter?

Section 2: Coping Strategies

6) How do you cope when?
   a. faced with a traumatic incident
   b. post incident
7) How have you developed this way of coping and has it changed throughout your years of service?
8) Do you feel this strategy works for you?

Section 3: Support Services

9) What support services are available to you?
10) Do you feel that these are adequate?
11) Is there anything you would like to add that I have not asked you about?
APPENDIX D - PARTICIPANT CONSENT FORM

**Title of study:** “An exploration of traumatic experiences and coping strategies amongst firefighters in Dublin Fire Brigade”.

My name is Bevin Herbert and I am a 4th year student in Dublin Business School. I am conducting this study as part of my final year research project (BA Counselling and Psychotherapy) in Dublin Business School. My research supervisor is Ms. Siobáin O'Donnell.

This is an exploratory study that intends to examine Dublin firefighter’s perceptions of the effects of dealing with traumatic experiences and consequences if any. It will also explore the coping strategies employed to combat work related stress and consider to what extent Dublin firefighters feel their mental health needs are being met and what the attitudes are to counselling in the Fire Service.

The process involves an interview that should take approximately 40 minutes which will be recorded. The questions will centre on your experience of traumatic incidents and the coping strategies adapted to manage these incidents. The interview will also explore your view on support services in Dublin Fire Brigade.
You will not be identified in the results of this research or in any part of the finished project and all information will be dealt with in the strictest confidence. Participation is voluntary and you may withdraw at any time prior to submission of completed project that is 19th April 2013.

Under data protection the author is required to keep the transcripts of the interviews for a period of five years in a secure location, after which they will be destroyed.

Please sign this form to acknowledge you have read and understood the contents:

The purpose and process of this study has been explained to me and I agree to participate.

Participant’s signature: ______________________________

Participant’s name printed: ____________________________

Date: _____________

Thank you very much for your time and consideration,

Bevin Herbert