

Registered Nurses' attitudes towards, and  
experiences of, aggression and violence in  
the acute hospital setting

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Andrea Craig

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## Abstract

Registered Nurses experience higher rates of workplace violence than any other healthcare profession, as they are at the forefront of providing care to vulnerable individuals, many of who are experiencing physical, psychological and or spiritual distress. However, there is a paucity of literature investigating aggression and violence within the acute hospital setting.

This study aimed to respond to this gap, providing New Zealand based data on Registered Nurses' attitudes towards and experiences of aggression and violence within the acute hospital setting by: determining the incidence of Registered Nurse exposure to aggression and violence; examining the effect of demographic factors on Registered Nurses exposure to aggression and violence; establishing how many Registered Nurses working in acute hospital settings have engaged in aggression management training and exploring the effect that aggression management training has on Registered Nurses attitudes towards aggression and violence.

Results from the study show that Registered Nurses working in this area face high levels of aggression and violence, with 27% of respondents having experienced a physical injury in the past year as the result of violent behaviour and 64% during their nursing career. Participation in aggression management training was found to have a negligible effect on exposure to aggression or violence and a limited impact on Registered Nurses attitudes towards aggression and violence. This is potentially due to the content, design and delivery methods of current training, the efficacy of which has been questioned by researchers.

Registered Nurses reported concerns about the increasing level of aggression and violence seen with the healthcare setting, inadequate managerial support both during and after incidents of aggression and violence and poor implementation of the policies and procedures relating to workplace violence.

Major recommendations for practice include the development of high quality, relevant and service specific AMT programmes, participation in which should be made a mandatory requirement of employment for all Registered Nurses and managers. It is also advocated that training be provided to those assigned to investigate incidents, to ensure that the analysis is robust, systematic and of high quality and that the policies and procedures relating to workplace violence are reviewed, to ensure that they are supportive of the professional, ethical and legal environment in which Registered Nurses work.

## Table of Contents

Abstract.....	iii
Table of Contents.....	iv
List of Figures and Tables.....	ix
Chapter 1 Introduction .....	1
1.1 Introduction .....	1
1.2 Defining Violence in the Healthcare Context.....	2
1.3 Perpetrators of aggression and violence .....	3
1.4 Incidence of violence in the healthcare setting.....	4
1.4.1 High-risk clinical settings.....	5
1.4.2 Under-reporting of incidences.....	5
1.5 The Burden of Aggression and Violence .....	7
1.5.1 Individual Harm.....	7
1.5.2 Organisational Harm .....	8
1.5.3 Financial Harm .....	8
1.5.4 Quality of Care Harm .....	9
1.6 Factors that contribute to violence in the healthcare setting.....	9
1.6.1 Service User - Clinical Condition .....	10
1.6.2 The Service User - Individual Characteristics .....	10
1.6.3 Service Provider .....	11
1.6.4 Nature of the Interaction.....	12

1.6.5 Environmental Factors .....	12
1.6.6 Organisational Factors .....	13
1.6.7 Societal Factors .....	13
1.7 Factors that reduce the incidence of violence in healthcare settings .....	13
1.7.1 Environmental Factors .....	13
1.7.2 Policies and Procedures .....	14
1.7.3 Staffing Levels and Skill Mix .....	15
1.7.4 Staff Training .....	15
1.8. Research Question .....	16
1.8.1 Specific Research Aims .....	17
Chapter 2 Literature Review .....	18
2.1 Introduction .....	18
2.2 Search Methodology .....	19
2.3 The role of Aggression Management Training (AMT) .....	19
2.4 The effectiveness of AMT .....	20
2.4.1 The effect of AMT on attitudes .....	20
2.4.2 The effect of AMT on confidence .....	21
2.4.3 The effect of AMT on knowledge and skills .....	21
2.4.4 The effect of AMT on incidents of aggression and violence .....	23
2.5 Quality of AMT .....	24
2.6 Paucity of research .....	24

Chapter 3 Methodology.....	26
3.1 Research Question and Aims .....	26
3.2 Research Design.....	26
3.3 Survey Design.....	27
3.3.1 Exposure to Aggression and Violence.....	28
3.3.2 Demographic Data .....	28
3.3.3 Participation in Aggression Management Training.....	28
3.3.4 Collins' Attitudes Towards Aggressive Behaviours Questionnaire .....	29
3.4 Sampling.....	29
3.4.1 Sample population .....	29
3.5 Distribution .....	30
3.6 Limitations.....	30
3.6.1 Research Design .....	30
3.6.2 Survey Design.....	31
3.6.3 Sampling Method.....	31
3.6.4 Distribution Method .....	32
3.7 Ethical Considerations.....	32
3.8 Data Analysis.....	33
3.9 Data Storage.....	34
Chapter 4 Results .....	35
4.1 Demographics .....	35

4.2 Exposure to Aggression and Violence .....	36
4.2.1 Experience of violence in the past year .....	37
4.2.2 Experience of violence during nursing career.....	37
4.2.4 Experience of aggression during nursing career.....	40
4.3 Participation in Aggression Management Training (AMT).....	42
4.4 Collins Attitude Towards Aggressive Behaviours Questionnaire .....	43
4.5 Nurses Voices .....	45
4.5.1 Organisational/Management Failure.....	45
4.5.2 Normalisation of Aggression and Violence .....	46
4.5.3 Factors contributing to aggression and violence .....	48
Chapter 5 Discussion.....	50
5.1 Demographics .....	50
5.2 Experience of Aggression and Violence .....	51
5.3 Participation in Aggression Management Training.....	53
5.4 Collins Attitudes Towards Aggressive Behaviours Questionnaire .....	57
5.4.1 Prediction .....	57
5.4.2 Patient motivation and responsibility for aggression.....	58
5.4.3 Staff anxiety and fear of assault.....	59
5.4.4 Need for skilled intervention .....	60
5.4.5 Staff confidence .....	61
5.5 Nurse’s Voices.....	62

5.5.1 Perception of Organisational/Management Failure .....	62
5.5.2 Normalisation of Aggression and Violence .....	65
5.5.3 Factors Contributing to Aggression and Violence.....	67
Chapter 6 Summary and Conclusions .....	69
6.1 Summary .....	69
6.2 Conclusions .....	71
6.3.1 Recommendations for Practice.....	72
6.3.2 Recommendations for future Research.....	72
References .....	73
Appendices.....	80
Appendix 1 - Internet Survey.....	80
Appendix 2 - Locality Approval .....	91
Appendix 3 - EIT Research and Ethics Committee Approval.....	92
Appendix 4 - EIT Research and Ethics Committee Approval of Survey Change.....	93

## List of Figures and Tables

Table 1:	Demographics	36
Table 2:	Distribution of participants across departments within the acute hospital setting	37
Table 3:	Experience of violence over past year and nursing career	39
Table 4:	Experience of aggression over past year and month	40
Table 5:	Effect of AMT on exposure to aggressive behaviour in the past year	41
Table 6:	Effect of age on infrequent exposure to aggressive behaviour	42
Table 7:	Effect of ethnicity on infrequent exposure to aggressive behaviour	42
Table 8:	Effect of qualifications on infrequent exposure to aggressive behaviour	43
Table 9:	Collins' Attitudes Towards Aggressive Behaviours Questionnaire	45

## Chapter 1 Introduction

### 1.1 Introduction

Workplace violence is acknowledged as a significant occupational hazard for all healthcare workers. It is present in all countries and across all sectors of healthcare provision (International Labour Office, International Council of Nurses, World Health Organization, & Public Services International, 2002; New Zealand Department of Labour, 2009). Globally, incidents of violence against healthcare workers are increasing in frequency and severity (Holmes, Rudge, & Perron, 2012). New Zealand is not immune to this phenomena, with one study finding that 65% of healthcare workers had experienced physical aggression within the past year (Swain, Gale, & Greenwood, 2014).

Workplace violence manifests in physical and non-physical forms. Physical violence is historically the most reported and researched form of violence against healthcare workers. It is now recognised that verbal abuse, harassment, intimidation and threatening behaviour can have negative consequences and that action must be taken to reduce these forms of violence as well (Health Service Working Group on Work-Related Aggression and Violence, 2008; International Labour Office et al., 2002).

The effects of workplace violence can be profound at an individual, collegial and organisational level, resulting in human, service and fiscal harm (Beech & Leather, 2006). Negative consequences involve: injury; disability; death; impaired emotional health; decreased job satisfaction; compromised job performance; lost days of work; increased healthcare costs; damaged facilities and a destabilised workforce, all ultimately affecting the quality of patient care (Beech & Leather, 2006; L. Yang, Spector, Chang, Gallant-Roman, & Powell, 2012).

Studies repeatedly show that Registered Nurses are the healthcare workers most at risk of experiencing violence (Kynoch, Wu, & Chang, 2011; Spector, Zhou, & Xin Xuan, 2014; Swain et al., 2014). The hazard is so significant that Registered Nurses are classified as being at extremely high risk of experiencing workplace violence (International Labour Office et al., 2002). Historically, the psychiatric setting has been the focus of most research, due to the high incidence of violence experienced in this area. This has led to a paucity of research examining aggression and violence within the acute (non-psychiatric) hospital setting (Kynoch et al., 2011).

This thesis focuses specifically on Registered Nurses' experiences of and attitudes towards aggression and violence in the acute hospital setting. The introductory chapter provides background information on workplace violence from an international and New Zealand perspective. Workplace violence is defined and the incidence and impact of workplace violence on individuals, organisations and quality of care are noted. Factors that contribute to and reduce the incidence of workplace violence are delineated and the main perpetrators of workplace violence are identified. Finally the research question and research aims are outlined.

## **1.2 Defining Violence in the Healthcare Context**

A clear, standardised and measurable definition of workplace violence is essential to facilitate accurate and quantifiable reporting. Eliminating the potential confusion caused by definitional ambiguity enables accurate assessment of the frequency and severity of violent incidents. This aids the development of preventative strategies and allows the effectiveness of interventions to be rigorously evaluated across a variety of healthcare settings (Hahn et al., 2013; Health Service Working Group on Work-Related Aggression and Violence, 2008).

The most universally accepted definition of workplace violence was adopted in 2002 by the Joint Programme on Workplace Violence in the Health Sector and has since been cited in many guidelines, regulatory reports and professional publications. It defines workplace violence as "incidents where staff are abused, threatened or assaulted in the circumstances related to their work, including commuting to and from work, involving an explicit or implicit challenge to their safety, well-being or health" (International Labour Office et al., 2002, p. 3)

Increasing recognition of the challenges involved in managing abusive non-physical behaviours led to this broad definition, which acknowledged the multitude of ways in which violence may be perpetrated against healthcare workers. Many healthcare organisations have developed frameworks that classify violent behaviours into narrower categories to help staff assess, respond and report incidents and guide the deployment of resources. However, the complex nature of violence means that there is often an overlap between behaviours, making such categorisation difficult (International Labour Office et al., 2002)

The Health Service Working Group on Work-Related Aggression and Violence (2008) categorises violent behaviours as verbally abusive, verbally threatening, physically threatening, physically assaultive or disruptive. Verbally abusive behaviour occurs when abusive or offensive language is used. This includes the use of profanities, obscenities or any comments that humiliate, degrade, demean or disrespect the targeted individual. This type of abuse is often targeted and very personalised. Verbally threatening behaviour is verbal abuse that specifically warns of intent to cause harm through the use of physical force or psychological means. Physically threatening behaviour involves acts or gestures that attempt to cause physical harm. Physically assaultive behaviour results in physical injury, caused with or without the use of weapons. Disruptive behaviour refers to any behaviour which results in an unpleasant or intimidating work environment, resulting in an inability to provide the usual level of healthcare service (Health Service Working Group on Work-Related Aggression and Violence, 2008; International Labour Office et al., 2002).

### **1.3 Perpetrators of aggression and violence**

The literature describes three main types of workplace violence. Type I violence occurs when the attack is the result of an attempt to gain cash or goods and the attacker has no lawful relationship with the workplace. Type II violence occurs when the perpetrator is the recipient of a service provided by the workplace and Type III violence occurs when the assault is committed by a member of the workplace (Health Service Working Group on Work-Related Aggression and Violence, 2008).

In healthcare settings Type II workplace violence predominates, with multiple studies demonstrating that patients and their visitors are responsible for the vast majority of incidents (Farrell, Bobrowski, & Bobrowski, 2006; Farrell & Shafiei, 2012; Mayhew & Chappel, 2003; Park, Sung-Hyun, & Hyun-Ja, 2015). A study on Registered Nurses' and Midwives' experiences of aggression and violence by Farrell and Shafiei (2012), found that patients were involved in 85% of violent incidents and visitors in 38%. Park et al. (2015) reported similar findings, with patients and family being the main perpetrators of violence.

Type III violence in the form of bullying and sexual harassment from work colleagues is an issue in the healthcare sector. However, the scope of this study has been limited to Type II violence, as it is by far the dominant form of violence experienced by Registered Nurses.

#### **1.4 Incidence of violence in the healthcare setting**

Official statistics are known to grossly under-represent the extent of violence in the healthcare sector (Beech & Leather, 2006; Health Service Working Group on Work-Related Aggression and Violence, 2008; New Zealand Department of Labour, 2009). Despite this, various studies show that healthcare workers experience higher rates of workplace violence than almost all other occupational groups (Chappell & Di Martino, 2006). In the United Kingdom, only police and security officers are at greater risk of experiencing violence at work than health professionals, whilst in the United States of America, medical professionals rank third in terms of occupations most likely to experience workplace violence, accounting for ten percent of all incidents (National Audit Office, 2003; United States Department of Justice, 2011). In New Zealand, the healthcare sector experiences high rates of workplace violence, with a physical assault rate five times greater than that of any other industry (Bentley, Forsyth, Tappin, & Catley, 2011).

In a study of violence on medical wards in the United Kingdom, Lepping, Lanka, Turner, Stanaway, and Krishna (2013) found that in one month 83% of staff had experienced verbal aggression and 63% had been assaulted by patients or visitors. A Swiss study investigating violence in a general hospital setting, found that 85% of staff had experienced some form of violence during their career (Hahn et al., 2013). Swain et al. (2014) examined New Zealand healthcare workers experiences of aggression, finding that 93% of respondents had experienced verbal anger in the past year, 65% had experienced physical aggression and 38% had experienced a physical assault.

An international literature review by Hahn et al. (2008) involving 31 studies revealed that Registered Nurses have a significantly greater risk of experiencing aggression and violence than other health professionals. These findings hold true in the New Zealand healthcare environment with Swain et al. (2014) reporting that 43% of Registered Nurses had experienced a physical assault in the previous year compared to 14% of Doctors.

Rates of exposure to workplace violence amongst Registered Nurses vary depending on country, employment setting and the definition of violence used in the study, universally however, the rates are high. Spector et al. (2014) conducted a systematic review of workplace violence rates amongst Registered Nurses internationally, reporting that in the past year 31.8% experienced physical violence, 62.8% nonphysical violence and 17.9%

sexual harassment. The results imply that the majority of Registered Nurses will encounter some form of workplace violence during their career.

#### **1.4.1 High-risk clinical settings**

Workplace violence is present in all hospital departments and is a risk for all health professionals (Hahn et al., 2008; Kynoch et al., 2011). However, staff working in certain clinical areas have a greater likelihood of experiencing workplace violence. Areas where high stress incidents occur frequently are most at risk, with emergency department, intensive care and maternity staff being particularly vulnerable (Hahn et al., 2013; Speroni, Fitch, Dawson, Dugan, & Atherton, 2014). Those working with patients whose conditions affect cognition and comprehension are also at high risk, with staff working in psychiatric, geriatric, learning disabled and neurological settings experiencing high levels of workplace violence (Farrell & Shafiei, 2012). Paediatric settings have also been identified as being potentially high-risk, as highly emotive situations can occur when child protection concerns are addressed or when difficult discussions are held about the treatment of critically and chronically ill children (Mayhew & Chappel, 2003).

A systemic review of the international literature on violence in acute hospital settings, found that emergency departments have the highest rate of violence, followed by medical wards, intensive care units, surgical settings and paediatric units (Hahn et al., 2008). An Australian report identified a similar pattern, however, the authors added a caveat, stating that any settings where stressful incidents occur with poor staffing and limited support are vulnerable to violence (Victorian Auditor-General, 2015).

#### **1.4.2 Under-reporting of incidences**

Under-reporting of aggressive or violent incidents is a common phenomenon in the healthcare sector, with a tendency for only the most serious of incidents to be formally reported (Health Service Working Group on Work-Related Aggression and Violence, 2008; Victorian Auditor-General, 2015). A recent report shows that concentrated efforts over the past decade to encourage incident reporting within the United Kingdom's National Health Service has resulted in just under two thirds of physical violence being reported and 44% of non-physical violence (Lepping et al., 2013). Mayhew and Chappell's (2003) review of international literature revealed a reporting rate of 20%, at best.

The incidents that are most likely to be reported are those where physical injury requiring medical attention occurs, where there is conscious intent to cause harm, where weapons are involved and where one individual is responsible for multiple episodes of aggression or violence (Victorian Auditor-General, 2015). Near misses, minor injuries and episodes of verbal abuse, verbal threats and disruptive behaviour are much more likely to go unreported (Health Service Working Group on Work-Related Aggression and Violence, 2008; Sato, Wakabayashi, Kiyoshi-Teo, & Fukahori, 2013; Speroni et al., 2014; Victorian Auditor-General, 2015).

Multiple factors contribute to the under-reporting of incidents. Many reporting systems are cumbersome, complex and time-consuming. Staff often do not have the time or inclination to navigate these systems and feel that there is little point in expending the effort as no meaningful changes would occur as a result (Health Service Working Group on Work-Related Aggression and Violence, 2008; Sato et al., 2013; Victorian Auditor-General, 2015). These perceptions on the futility of filling out incident reports are borne out by Victorian Auditor-General (2015), who found that incidents were poorly investigated in all but the most serious of cases.

Many staff state they have compassion and understanding when violence occurs due to the patient's clinical condition, when there is no conscious intent to cause harm. Staff often fail to report such incidents as the individual concerned is perceived to not be responsible for their actions (Health Service Working Group on Work-Related Aggression and Violence, 2008; Victorian Auditor-General, 2015). There is also a pervasive belief amongst many healthcare workers that violence is simply unavoidable and 'just part of the job'. This attitude is much more common amongst psychiatric and emergency department staff, who have a high level of exposure to aggression and violence (Speroni et al., 2014; Victorian Auditor-General, 2015). Finally, some healthcare workers experience feelings of shame and responsibility for 'allowing' incidents to occur and are fearful of being thought unable to cope with difficult situations or being blamed for the incident, should they report it (Health Service Working Group on Work-Related Aggression and Violence, 2008; Sato et al., 2013).

The significant under-reporting of incidents and the bias towards reporting only the more serious occurrences clouds the reality of workplace violence in the healthcare sector (Speroni et al., 2014). Inaccurate information about the type and frequency of aggression

and violence within organisation flows on into policy making, organisational planning and staff training, with the skewed data potentially leading to inappropriate organisational interventions (Health Service Working Group on Work-Related Aggression and Violence, 2008).

## **1.5 The Burden of Aggression and Violence**

### **1.5.1 Individual Harm**

At an individual level, workplace violence has significant physical and psychological effects. The physical consequences range from minor injury to permanent disability or death (Beech & Leather, 2006; Lanctôt & Guay, 2014). Bites, scratches, bruises, grazes and lacerations to the head, back and arms, are the most common injuries sustained by healthcare workers (Lanctôt & Guay, 2014). Serious injuries are generally rare, with Erkol, Gökdoğan, Erkol, and Boz (2007) reporting a 'life-threatening' injury rate of 4.4%.

Physical injuries need not be sustained for workplace violence to negatively affect physical health. Poorer somatic health is reported amongst victims of all forms of workplace violence, with increased rates of headaches, stomach aches and generalised pain (Lanctôt & Guay, 2014). In one study, 32.3% of verbal abuse victims and 36.6% of physical violence victims reported a deterioration in their physical health after exposure to workplace violence (Çelik, Çelik, Ağırbaş, & Uğurluoğlu, 2007).

Common psychological responses to workplace violence include stress and anxiety reactions, depression, sleep disturbances, fatigue, emotional exhaustion and difficulty concentrating (Beech & Leather, 2006; Lanctôt & Guay, 2014). Feelings of shock, anger, fear, guilt, self-doubt, irritability and humiliation predominate. (Lanctôt & Guay, 2014; Pompeii et al., 2013). Psychological distress is not restricted to the individual directly affected by the violence. Colleagues, patients and visitors who witness the violence may also experience negative effects (Health Service Working Group on Work-Related Aggression and Violence, 2008; Lanctôt & Guay, 2014; Victorian Auditor-General, 2015).

The psychological effects of workplace violence can have a profoundly negative impact on an individual's ability to function normally within their families, workplaces and social circles, leading to isolation and loneliness. Victims may develop a fear of returning to work

and a fear of their patients, resulting in job dissatisfaction and poorer job performance (Lanctôt & Guay, 2014; Pompeii et al., 2013).

### **1.5.2 Organisational Harm**

Workplace violence is acknowledged as a "serious, sometimes lethal threat to the efficiency and success of organisations", negatively affecting the organisational functioning and cohesiveness of healthcare institutions (International Labour Office et al., 2002, p. 1). Studies show that those who have experienced workplace violence have lower morale (Health Service Working Group on Work-Related Aggression and Violence, 2008), reduced job satisfaction and organisational commitment (Camerino, Estry-Behar, Conway, van der Heijden, & Hasselhorn, 2008; L. Yang et al., 2012), decreased productivity and efficiency (Farrell & Cubit, 2005) and increased errors (Farrell et al., 2006). Additionally, organisations develop difficulties with the recruitment and retention of staff, as absenteeism due to physical or psychological injury leads to staff shortages, greater workloads, increased staff turnover and higher rates of early retirement (Farrell & Cubit, 2005; Lanctôt & Guay, 2014; Victorian Auditor-General, 2015).

### **1.5.3 Financial Harm**

The financial consequences of workplace violence are widely considered to be substantial (Health Service Working Group on Work-Related Aggression and Violence, 2008; Victorian Auditor-General, 2015). However, it is difficult to calculate the true financial impact, due to the number of complex factors involved and the absence of a reliable measurement tool (National Audit Office, 2003). The National Audit Office (2003) has roughly estimated the cost to the UK National Health System at £69 million per annum. This figure includes direct costs only, such as security costs, property damage and absenteeism due to injury. It does not include damage to staff morale and confidence, diminished organisational functioning or the human costs in terms of physical and psychological harm (National Audit Office, 2003).

The substantial costs associated with aggression and violence diverts what are often limited financial resources away from healthcare provision and weakens organisational function. It is essential that the harm caused by aggression and violence is minimised, in order to better utilise available resources and ensure that healthcare organisations are robust,

energised and able to focus on providing safe, high quality patient care (Di Martino, 2003; Health Service Working Group on Work-Related Aggression and Violence, 2008).

#### **1.5.4 Quality of Care Harm**

Exposure to workplace aggression and violence can compromise patient care (International Labour Office et al., 2002; Victorian Auditor-General, 2015) A study of workplace aggression amongst Tasmanian nurses found an increased potential for errors amongst those who had experienced aggression. Additionally, staff reported being unable to offer adequate care to their patients, as the result of aggressive behaviour (Farrell et al., 2006).

Changes in behaviour and the adoption of protective mechanisms post-assault affect the victim's ability to provide appropriate care. Arnetz and Arnetz (2001) report that 47% of victims are more cautious and on guard when interacting with patients and 13% are constantly fearful. These reactions negatively affect the way in which healthcare staff interact with their patients. Eker, Özder, Tokaç, Topçu, and Tabu (2012), found that 50.8% of victims altered their work behaviours, taking less interest in their patients, spending less time with them and performing fewer tasks, leading to episodes of missed care.

Employment of these patient-avoiding strategies, where interventions and interactions are minimised and staff are less responsive to patient needs, is detrimental to the quality of care being provided and results in unsatisfied healthcare consumers and poorer outcomes (Arnetz & Arnetz, 2001; Eker et al., 2012). A negative cycle can ensue, where disengaged and fearful staff fail to provide the care and support expected, frustrating patients and triggering further episodes of aggression and violence.

#### **1.6 Factors that contribute to violence in the healthcare setting**

The direction of aggression and violence towards healthcare workers is a complex issue "rooted in social, economic, organisation and cultural factors" (International Labour Office et al., 2002, p. 9). Each interaction between healthcare worker and client is an intricate interplay between the service user's clinical condition, the service user's individual characteristics, the service provider, the nature of the interaction and the environment in which the service is being provided (Health Service Working Group on Work-Related Aggression and Violence, 2008). Violent incidents are therefore the result of dynamic interactions between factors both internal and external to the perpetrator (Farrell &

Shafiei, 2012). The complicated nature of these interactions makes violent episodes difficult to predict, but several factors have been identified that are associated with an increased risk of violence.

### **1.6.1 Service User - Clinical Condition**

The service user's clinical condition is one of the biggest predictors of violent behaviour. Conditions which affect the service user's ability to understand their environment and make intentional and premeditated decisions are associated with an increased risk of violent behaviour (Hahn et al., 2013; New Zealand Department of Labour, 2009; Victorian Auditor-General, 2015). Dementia, delirium, septicaemia, electrolyte imbalances, hypoxia, head injuries, cognitive impairment, neurological conditions, psychiatric conditions and acute alcohol and drug intoxication and withdrawal are conditions known to increase the risk of unwanted behaviours (Hahn et al., 2013; New Zealand Department of Labour, 2009). Violence occurring under these conditions lacks the conscious intent to cause harm and has been termed 'unconscious violence' (New Zealand Department of Labour, 2009).

Clinical conditions which cause pain, nausea, sleep deprivation, breathlessness, immobility and loss of independence may result in reduced tolerance levels and poorer coping mechanisms. In addition, many physiological conditions result in the service user experiencing psychological distress, which can be exacerbated by financial, familial and social stressors. Fear, anxiety, grief, guilt, frustration and anger further accentuate emotional responses, which may lead to maladaptive behaviours such as aggression and violence (Arnold & Boggs, 2016; Beech & Leather, 2006).

### **1.6.2 The Service User - Individual Characteristics**

When considering risk factors for violence it is important to avoid profiling individuals, as this may lead to discrimination and prejudicial treatment which may further escalate the risk of violence (International Labour Office et al., 2002). Studies do show however, that those displaying violence are predominantly male and either under 40 years of age or over 65 years of age (Hahn et al., 2012; Hahn et al., 2013; Hahn et al., 2008). Amongst older adults there is a greater prevalence of the clinical conditions associated with an increased risk of violence. This is thought to account for the high incidence of violence in this age group (Hahn et al., 2013).

The service user's personality, communication skills, coping skills, anger management techniques and social history influence responses to healthcare interactions (Hahn et al., 2013). Those who have previously had adverse encounters with the service provider or organisation, and those who have a history of violent incidents, are at greater risk of engaging in violence (Gillespie, Gates, Miller, & Howard, 2010). Many healthcare organisations have developed warning systems alerting workers to individuals with a history of violence, as this is a strong predictor of future violence.

### **1.6.3 Service Provider**

Staff characteristics associated with an increased risk of experiencing workplace violence include being young, female, or a member of a minority group. Inexperience also increases risk, with students being at particular risk of harm from violent behaviour (Beech & Leather, 2006). Staff who have previously experienced workplace violence are at increased risk of future violence, as are those who have poor coping or communication skills (Health Service Working Group on Work-Related Aggression and Violence, 2008).

Several studies have found a correlation between participation in aggression management training and an increased risk of exposure to workplace violence (Arnetz & Arnetz, 2001; Beech & Leather, 2006; Gillespie et al., 2010; Hahn et al., 2013). Several explanations for this unexpected finding have been postulated. Firstly, it is thought that training is most likely to be provided in areas where workers are considered to be at high risk of experiencing violence and therefore more violence is experienced because of the nature of the environment. Secondly, trained individuals are more likely to be sought out to help manage escalating situations, increasing the likelihood of involvement in violent episodes (Gillespie et al., 2010). Finally, it has been suggested that training results in more accurate reporting of violent incidences, with those who have received training not being more likely to experience violence, just more likely to report it (Arnetz & Arnetz, 2001).

Attitudes towards aggression and violence play a significant role in how healthcare workers view and respond to challenging behaviours. Those who view aggression as 'emotionally letting off steam' have a reduced risk of experiencing violence, as are those who state they feel confident managing violent behaviours (Hahn et al, 2013).

#### **1.6.4 Nature of the Interaction**

Some interactions in the healthcare setting are inherently conflictual and are associated with an increased risk of violence. Particularly divisive situations include: detention of a service user against their will; enforcement of rules and regulations regarding issues such as smoking, visiting and patient movement; limit setting and denial of requests (Health Service Working Group on Work-Related Aggression and Violence, 2008; Victorian Auditor-General, 2015). Circumstances where there has been a failure of expectations and service users perceive that they have received inappropriate or inadequate care, had services denied or experienced long waiting times can also lead to challenging behaviours (Health Service Working Group on Work-Related Aggression and Violence, 2008).

The risk of experiencing aggression and violence is greatest amongst those health professionals who have the most direct contact times with patients and their visitors, as the majority of violent episodes occur during interventions involving direct personal contact (Hahn et al., 2012; Lepping et al., 2013). Executing patient care tasks requires close personal contact and involves risk, especially when the individual's clinical condition impairs their ability to comprehend and consent to the care. Registered Nurses' are at the forefront of providing direct patient care and therefore are the health professionals most at risk of experiencing workplace violence (Kynoch et al., 2011; Speroni et al., 2014; Swain et al., 2014).

#### **1.6.5 Environmental Factors**

The physical properties of the environment in which care is provided can serve as triggers for violence. A lack of privacy, invasion of personal space through overcrowding, prolonged waiting times, insufficient entertainment during waiting periods, inadequate seating, excessive noise, offensive odours, poor lighting, heating and ventilation, defective or outdated equipment, poorly maintained amenities and fixtures, and insufficient signage can lead to an increase in tension that results in violent behaviour (Health Service Working Group on Work-Related Aggression and Violence, 2008; International Labour Office et al., 2002; New Zealand Department of Labour, 2009). Additional environmental factors which increase the risk of exposure to violence include working in isolation and working with objects of value such as expensive equipment and drugs (International Labour Office et al., 2002; New Zealand Department of Labour, 2009).

### **1.6.6 Organisational Factors**

Organisational factors that affect the risk of violence include: staffing practices; management styles; work pressure; options for continuing education; access to security, emergency response protocols and the robustness of policies and procedures (International Labour Office et al., 2002). Organisational priorities influence the physical environment in which healthcare workers operate, which affects service user's interactions with them.

### **1.6.7 Societal Factors**

Societal attitudes towards violence are reflected in the behaviours expressed towards healthcare workers. The degree to which patients are willing to accept organisational rules and regulations without conflict is a manifestation of these attitudes (Victorian Auditor-General, 2015). Changing attitudes towards illicit drug and alcohol use also impacts on the incidence of violence within the acute hospital setting. The increased use of these substances within the community has led to increased hospitalisation rates of drug and alcohol affected individuals (Victorian Auditor-General, 2015).

A large study of alcohol harm in Emergency Departments revealed that in New Zealand and Australia 8.3% of all Emergency Department presentations are alcohol related (Australasian College for Emergency Medicine, 2015). Aggression and violence are behaviours commonly associated with drug and alcohol intoxication and increasing hospitalisations of drug and alcohol affected individuals has increased the risks of healthcare workers encountering violent behaviours (Australasian College for Emergency Medicine, 2015; Victorian Auditor-General, 2015).

## **1.7 Factors that reduce the incidence of violence in healthcare settings**

### **1.7.1 Environmental Factors**

Healthcare facility design plays an important role in preventing aggression and violence, as the physical environment has the potential to either aggravate or defuse tense situations (International Labour Office et al., 2002). In a study of Victorian Nurses and Midwives, Farrell, Shafiei, and Chan (2014) found that well designed, high quality facilities were protective against incidences of aggression and violence. They postulated that the design of these facilities helped patients better manage their frustrations and anxieties.

Ideally, the physical environment should have enough space to prevent crowding and invasion of personal space. Suitable lighting, heating and ventilation should be maintained and measures should be taken to minimise excessive noise and bad odours (International Labour Office et al., 2002; New Zealand Department of Labour, 2009). The surroundings should be attractive and comfortable, with well maintained fixtures and fittings that are arranged to prevent staff entrapment (Health Service Working Group on Work-Related Aggression and Violence, 2008; International Labour Office et al., 2002; New Zealand Department of Labour, 2009). Key amenities should be well signposted, waiting times minimized and client flow maximised (International Labour Office et al., 2002).

Points of access to the facility should be limited, but clearly marked. Security should be based close to these areas with the ability to screen those entering. (International Labour Office et al., 2002; New Zealand Department of Labour, 2009). Personal protective equipment, suitable for each department's risk assessment, should be provided and maintained. Appropriate security devices, alarms and duress systems should be in place, triggering a reliable security response when activated (International Labour Office et al., 2002; New Zealand Department of Labour, 2009).

### **1.7.2 Policies and Procedures**

Clear, unambiguous policies and procedures that meet moral, ethical, legal and professional standards provide healthcare workers with guidance in managing, responding and reporting incidences of aggression and violence (Health Service Working Group on Work-Related Aggression and Violence, 2008). A study of Victorian Nurses and Midwives by Farrell et al. (2014) found that enforcement of organisational policies by management was protective against aggression and violence from patients or visitors.

The Victorian Auditor-General's report into occupational violence against healthcare workers found that most organisations had occupational/workplace violence policies. However, these tended to be inadequately implemented and had poor oversight and enforcement. Under-reporting was common, as staff were unclear on which behaviours constituted workplace violence, investigations were poorly managed, risk alerts not reliably implemented and behaviour management plans poorly executed (Victorian Auditor-General, 2015).

### **1.7.3 Staffing Levels and Skill Mix**

The risk of workplace violence is reduced when there is adequate staffing, the appropriate skill mix and strong leadership (Farrell et al., 2014; Health Service Working Group on Work-Related Aggression and Violence, 2008; International Labour Office et al., 2002; Roche, Diers, Duffield, & Catling-Paull, 2010). In a study investigating violence towards nurses in medical and surgical wards in Australia, Roche et al. (2010) found that less violence occurred when a greater proportion of the staff were Registered Nurses. Farrell et al. (2014), found that there was a reduced risk of workplace violence when staffing levels were sufficient to ensure safe care. However, only 61% of those surveyed believed that staffing levels within their workplace were adequate to provide safe care.

The New Zealand Department of Labour (2009) recommends that rosters should ensure the presence of adequate numbers, of appropriately qualified staff, to cover routine and emergency needs, considering individual characteristics such as physical strength, gender and general fitness. These recommendations echo the International Labour Office et al. (2002, p. 19) framework guidelines for addressing workplace violence in the health sector which state that "the adequate presence of staff, in terms of numbers and qualification, should be ensured".

### **1.7.4 Staff Training**

Staff training is widely recognised as being one of the most important factors in successfully preventing and managing workplace violence (Beech & Leather, 2006; Gerdtz et al., 2013). Training enables staff to develop the knowledge, skills, attitudes and confidence necessary to manage incidents of aggression and violence in a safe and professional manner (Kynoch et al., 2011). It is considered an essential component of developing a culture where staff safety is prioritised (Victorian Auditor-General, 2015).

The New Zealand Department of Labour (2009, p. 20) states that all employees in the healthcare sector should participate in "relevant and adequate training, both at entry (induction) and at regular intervals". It recommends that this training should be followed by a refresher course within the year. It is currently unknown the extent to which these recommendations are followed, as there is no formal record of the numbers of healthcare workers attending aggression prevention and management programmes.

Most of the existing body of evidence on how to predict, recognise, respond and manage violence and aggression comes from the psychiatric sector (Chapman, Perry, Styles, & Combs, 2009; Kynoch et al., 2011). Kynoch et al. (2011) indicate that differences in underlying pathology mean that it is inappropriate to transfer most of this evidence from the psychiatric to acute care setting, as different tools, knowledge and skills are required when working in an acute care environment.

There are only a limited number of studies evaluating the effectiveness of training programmes designed specifically for acute care staff (Beech & Leather, 2006; Chapman et al., 2009; Farrell & Cubit, 2005; Gerdtz et al., 2013). Consequently, there is an absence of clear guidelines as to the ideal content of these training programmes and a lack of evidence as to what is considered safe, beneficial and legally acceptable nursing practice (Health Service Working Group on Work-Related Aggression and Violence, 2008). In an audit of occupational violence against Victorian healthcare workers, the Victorian Auditor-General (2015) found that most staff training programmes were inadequately evaluated, meaning that it was unable to be determined if the training had given staff the knowledge and skills necessary for their area of practice.

Many nurses working in acute care areas have not received appropriate training in aggression management, as the risks of workplace violence are perceived as being lower than in a psychiatric setting (Kynoch et al., 2011). They are expected to respond to individuals displaying aggressive behaviour, without having the knowledge or skills required to effectively manage the situation (Kynoch et al., 2011). In an audit of occupational violence against Victorian healthcare workers Victorian Auditor-General (2015) found that training was generally inadequate, with the exception of psychiatric and emergency department staff, and was not reflective of the actual risk of workplace violence faced by the workers.

### **1.8. Research Question**

Registered Nurses are considered to be at 'extremely high risk' of experiencing workplace violence (Beech & Leather, 2006; International Labour Office et al., 2002). However, there is no New Zealand data providing details on rates of Registered Nurse exposure to aggression and violence within the acute (non-psychiatric) hospital setting. Staff training is considered vitally important in the successful resolution of workplace violence incidents.

Unfortunately, in the acute hospital setting there is a paucity of research about the effects of aggression management training on Registered Nurse's knowledge, skills, attitudes and confidence in dealing with violent situations (Beech & Leather, 2006; Chapman et al., 2009; Gerdtz et al., 2013; International Labour Office et al., 2002). The New Zealand Department of Labour (2009) recommends that all healthcare workers should receive aggression management training at induction to their workplace and at regular intervals thereafter. To date there is no data available to determine whether these recommendations are being followed, or whether engagement in the aggression management programmes available in New Zealand has any effect on attitudes towards aggression and violence.

These data gaps led to the formation of the research question "What are Registered Nurses attitudes towards, and experiences of, aggression and violence in the acute hospital setting". The primary purpose of this research is to ascertain the incidence of Registered Nurses exposure to aggression and violence within the acute hospital setting in New Zealand and examine the influence of factors such as age, gender, ethnicity, years of nursing, post-graduate qualifications and country of initial nursing registration on Registered Nurses' experiences of aggression and violence. Secondary aims include determining how many Registered Nurses have received aggression management training and to explore whether those who have engaged in aggression management training have differing attitudes towards aggression and violence than those with no training.

#### **1.8.1 Specific Research Aims**

- 1)** Determine the incidence of Registered Nurse exposure to aggression and violence.
- 2)** Examine the effect of age, gender, ethnicity, country of initial nursing qualification, years of experience nursing and post-graduate qualifications on Registered Nurses exposure to aggression and violence.
- 3)** Establish how many Registered Nurses working in acute hospital settings have engaged in aggression management training.
- 4)** Explore the effect that aggression management training has on Registered Nurses attitudes towards aggression and violence.

## Chapter 2 Literature Review

### 2.1 Introduction

Violence and aggression from patients and visitors is acknowledged as a significant occupational hazard for all healthcare workers (International Labour Office et al., 2002; New Zealand Department of Labour, 2009; Oostrom & van Mierol, 2008). International studies consistently show that Registered Nurses are the health professionals most likely to be confronted with these challenging behaviours which can include verbal or written abuse, threats, harassment, and physical or sexual assault (International Labour Office et al., 2002; Kynoch et al., 2011; Spector et al., 2014).

The consequences of workplace violence and aggression are substantial, at both an individual and organisation level (Beech & Leather, 2006). For healthcare institutions the costs are largely fiscal, resulting from property damage, security costs, absenteeism due to injury and compensation (Beech & Leather, 2006; Farrell & Cubit, 2005; L. Yang et al., 2012). However, some consequences are more intangible, with lower staff morale negatively impacting on quality of care and staff retention and recruitment (Beech & Leather, 2006; Farrell & Cubit, 2005).

At an individual level, exposure to violence and aggression can cause considerable psychological, social and fiscal harm in addition to physical injury, disability or death. Reactions to incidents of violence and aggression can result in anxiety, depression, impaired self-confidence, social isolation, relationship issues, decreased job satisfaction, lost days of work and early retirement (Beech & Leather, 2006; L. Yang et al., 2012).

This literature review outlines the important role that aggression management training (AMT) plays in mitigating the risk of aggressive and violent behaviour. The effect of AMT on Registered Nurses' attitudes, confidence, knowledge and skills is outlined, as is the impact that participation in AMT has on rates of aggression and violence. Questions about the quality of AMT that is provided to Registered Nurses are raised, as are concerns about the lack of research focusing on this area.

## **2.2 Search Methodology**

The electronic databases CINAHL, MEDLINE, PubMed and Google Scholar were searched using the key words nurse OR healthcare AND aggression OR violence AND education OR training. Studies focused primarily on psychiatric settings were excluded from the literature review, as this research project aims to examine the impact of AMT on aggression and violence within the acute hospital setting. It is considered inappropriate to generalise the results of studies conducted in psychiatric settings to acute hospital settings, due to differences in the underlying causes of aggression and violence, types of care provision likely to be required, physical environment, training and education (Kynoch et al., 2011).

## **2.3 The role of Aggression Management Training (AMT)**

Reducing the high levels of violence and aggression within the healthcare sector requires a multifaceted organizational approach addressing workplace design, policies and practices, staffing levels, skill mixes and staff education (Health Service Working Group on Work-Related Aggression and Violence, 2008; International Labour Office et al., 2002; Occupation Safety and Health Administration, 2015).

Education is considered vital in providing Registered Nurses with the tools needed to respond to incidents of aggression and violence in a safe and professional manner. However, the evidence suggests that most Registered Nurses working in acute hospital settings have had little training in aggression management and do not have the knowledge or skills necessary to respond adequately to such incidents (Ford, 2011; Kynoch et al., 2011).

It is being increasingly recognised that Registered Nurses working outside of the departments traditionally considered at high risk of aggression and violence also experience significant levels of harm. This has led to a worldwide call from policy makers and professional organisations for all Registered Nurses to have access to high quality, relevant training in aggression management (Health Service Working Group on Work-Related Aggression and Violence, 2008; International Labour Office et al., 2002; New Zealand Department of Labour, 2009; Occupation Safety and Health Administration, 2015; Victorian Auditor-General, 2015).

Despite the almost universal call for Registered Nurses to be provided with AMT, the effectiveness of these programmes is unclear. There is little published literature examining the impact of violence and aggression management training on staff learning, attitudes, behaviour or organisational outcomes (Beech & Leather, 2006). What literature is available mostly focuses on training programs for psychiatric nurses, rather than those working in acute hospital settings (Beech & Leather, 2006; Hahn et al., 2013).

## **2.4 The effectiveness of AMT**

Gaining competency in a new skill in the healthcare setting requires the development of knowledge, skills, attitudes, confidence and problem-solving abilities (Dijkstra, Van der Vleuten, & Schuwirth, 2010). The studies included in the literature review evaluated one or more of these factors to determine the effectiveness of the training intervention.

### **2.4.1 The effect of AMT on attitudes**

Four studies evaluated the effects of an AMT on staff attitudes towards the causal factors of aggression and violence (Deans, 2004; Gerdtz et al., 2013; Grenyer et al., 2004; Oostrom & van Mierol, 2008). The four studies were all quasi-experimental in nature, utilizing a one group pre-test post-test design. Two of the studies used previously validated scales which had been determined to have high degrees of reliability - the Collins Attitudes Towards Aggressive Behaviours Questionnaire and the Management of Aggression and Violence Attitude Scale (Gerdtz et al., 2013; Grenyer et al., 2004). The other two studies utilised questionnaires developed specifically for the study (Deans, 2004; Oostrom & van Mierol, 2008). The AMT programmes varied widely in content, delivery method and duration.

Some improvement in attitudes towards aggression was found in all four of the studies. Oostrom and van Mierol (2008) found significant improvements in staff insight into aggression, whilst Deans (2004) found a general improvement in a variety of attitudes post training. However, there were also some negative changes with regard to the use of incident reports and the degree to which participants felt management cared for them. Grenyer et al. (2004) found a statistically significant improvement in four of 12 attitudes examined. However, no significantly positive change was seen in eight of the 12 attitudes evaluated. The fourth study, a large multi-site quasi-experimental study using a validated scale, observed statistically significant shifts in attitude in only five out of 23 items addressing attitudes towards aggression. The authors found there was limited evidence

that the AMT programme had resulted in positive changes in staff attitudes towards patient violence and aggression (Gerdtz et al., 2013). This may however, be attributed to the design and duration of the AMT, which was delivered over only 45 minutes compared with the eight to twenty two hours for the three AMT programmes conducted by Deans (2004), Grenyer et al. (2004) and (Oostrom & van Mierol, 2008) which reported more positive changes in attitudes towards violence and aggression.

#### **2.4.2 The effect of AMT on confidence**

Three of the studies that addressed staff attitudes towards aggression also investigated staff confidence in managing aggressive and violent patients, via pre-test post-test surveys. In all studies the staff self-reported an increased level of confidence in dealing with aggressive situations after the AMT (Deans, 2004; Grenyer et al., 2004; Oostrom & van Mierol, 2008). Deans (2004) found that staff were more confident in dealing with aggressive situations and more confident of responding appropriately to people who were fearful, frustrated, intimidating or manipulating. Oostrom and van Mierol (2008) describe similar findings, with staff reporting an increase in confidence managing adverse situations post-implementation of the AMT programme. Grenyer et al. (2004) utilised the previously validated Confidence in Coping with Aggression Instrument, finding a statistically significant increase in staff confidence in dealing with aggressive incidents. The AMT used in the study was delivered via four modules and it was found that confidence increased with the number of modules completed, but completion of even one module led to a significant increase in confidence in managing challenging behaviours (Grenyer et al., 2004).

#### **2.4.3 The effect of AMT on knowledge and skills**

The effect of an AMT programme on healthcare staff's knowledge and skills in managing violence and aggression was reported in five studies. Four studies relied on self-reporting via pre-test post-test questionnaires or responses to written scenarios to assess changes in knowledge, whilst one used the De-escalating Aggressive Behaviour Scale to rate skills in managing aggressive patients in a simulated scenario both before and after completing the AMT. Both Beech and Leather (2003) and Grenyer et al. (2004) used written scenarios to assess the development of participants skills in risk assessment. Both studies revealed increases in ability to accurately perform risk assessments, with the Beech and Leather (2003) study demonstrating a continued improvement at a three month follow-up. Beech

and Leather (2003) also found a statistically significant improvement in student nurses' knowledge of their rights and responsibilities and their practical ability to maintain personal safety and predict and prevent events.

Positive changes in knowledge and skills surrounding aggression management were also reported by Arnetz and Arnetz (2000) who assessed the impact of a year-long program to provide structured educational feedback for every reported incident of aggression or violence. In comparison with the control group (no feedback) statistically significant improvements in knowledge and awareness of risk assessment techniques, strategies for avoiding violent or aggressive situations and skills in managing aggressive patients were reported for those receiving feedback. The Nau, Halfens, Needham, and Dassen (2010) study supports the findings of the previous studies, reporting statistically significant improvements in student nurse's ability to de-escalate aggressive behaviour after implementation of an AMT, when video-taped scenarios were analyzed using the De-escalating Aggressive Behaviour Scale.

The majority of the studies reviewed found statistically significant improvements in many aspects of the study participants' knowledge and skills post implementation of an AMT. In contrast, Deans (2004), who evaluated the results of a 56 item pre-test post-test questionnaire, found only small changes in knowledge relating to violence and aggression. Only one significant positive change was noted where participants showed increased knowledge of their workplaces code of conduct regarding aggression management (Deans, 2004). This study had several limitations which the author acknowledged, in that it had a relatively small non-randomly selected sample of twenty four participants and there was no control group to compare results to, weakening the internal validity and generalisability of the study .

The literature suggests that AMT programmes can positively influence attitudes, confidence, knowledge and skills in managing violence and aggression. Whether these changes translated to a reduction in incidences of violence and aggression was evaluated by three studies.

#### **2.4.4 The effect of AMT on incidents of aggression and violence**

Fernandes et al. (2002) conducted a cross-sectional prospective survey at baseline, three and six months after implementation of an AMT programme. Reported incidences of both physical and verbal violence had decreased by a considerable and statistically significant degree at the three month period. At the six month period, however, incidents of physical violence had risen to nearly baseline levels, whilst incidents of verbal violence had also risen substantially, though not to baseline levels.

Deans (2004) conducted a pre-test post-test study to evaluate the effectiveness of a newly developed training program for Emergency Department nurses. The number of aggressive incidents encountered in the previous three months decreased post-test, however the change was not considered to be statistically significant .

Arnetz and Arnetz (2000) conducted a quasi-experimental non-equivalent control group study on the impact of providing structured, educational, group feedback for every reported incidence of aggression or violence within the intervention group's workplaces. Interestingly, reported incidents of aggression and violence increased by fifty percent during the year-long study, despite concurrent findings of increased confidence, knowledge and skills in managing aggression and violence.

Whittington and Wykes (1996, as cited in Arnetz and Arnetz, 2000) reported similar findings, as did Hahn et al. (2013) in a literature review describing the risk factors associated with aggression and violence. Both these studies found that those who had attended an AMT programme were more likely to report violent incidences than those who had not had training. Lepping et al. (2013) and Heckemann et al. (2015) however, found that participation in AMT resulted in no statistically significant change in the risk of experiencing aggression

Incidences of aggression and violence against healthcare workers are known to be considerably under-reported, with many nurses feeling that it is 'just part of the job' (New Zealand Department of Labour, 2009; L. Yang et al., 2012). Arnetz and Arnetz (2000) postulate that the participation in AMT may serve to highlight the issue of aggression and violence within the workplaces and create a non-punitive reporting culture, resulting in a higher, but more accurate reporting of levels of violence and aggression.

The literature appears to show that engaging in an AMT programme can result in some statistically significant positive changes in healthcare workers attitudes, confidence, knowledge and skills in managing aggression and violence. There is limited evidence suggesting that attending an AMT programme can result in fewer incidences of aggression and violence, with the bulk of the evidence suggesting that participation in AMT has no significant impact on experiences of aggression or violence, or actually increases the number of reported incidents (Deans, 2004; Fernandes et al., 2002; Hahn et al., 2013; Heckemann et al., 2015; Lepping et al., 2013).

## **2.5 Quality of AMT**

The literature shows that participation in well-designed AMT programmes has the potential to have positive effects of knowledge, skills and confidence in managing aggression and violence. However, serious concerns have been raised about the quality of AMT that is currently being provided to Registered Nurses. The Victorian Auditor-General (2015) described the training available to Victorian Registered Nurses as inadequate and insufficient and in a large study of Victorian Nurses and Midwives Farrell and Shafiei (2012) found that 43% of those who had attended AMT found the training to only be marginally effective, or not effective at all.

## **2.6 Paucity of research**

It has been historically acknowledged that there is a paucity of literature evaluating the impact of educational interventions on violence and aggression in the acute hospital setting (Beech & Leather, 2006; Chapman et al., 2009; Farrell et al., 2006; Kynoch et al., 2011). This appears to remain true with only eight studies found that meet the specific requirements of this literature review. The generalisability and internal validity of many of these studies was poor, threatened by small sample sizes, no controls, lack of randomisation and reliance on self-reporting.

Zarola and Leather (2006) voiced serious concern about the lack of research in this area, the poor quality of the published literature and the weak research designs employed. The writers voiced extreme criticism about the existing evidence's primary reliance on subjective self-reporting, utilization of a narrow range of outcome variables to assess training outcomes and a lack of research into whether any behavioural or attitudinal changes are lasting, or translated back into the work environment (Zarola & Leather, 2006).

The limited number of rigorous, published studies on the impact of AMT programmes on violence and aggression within an acute hospital setting leaves scope for further research. Zarola and Leather (2006) state that there is a need to obtain reliable and valid evidence, gathered from rigorously designed studies, that can enable a true assessment of the impact of change from AMT programmes.

There are currently no studies evaluating this issue from a New Zealand healthcare context. Differences in pre-registration education, health workforce structure and culture and national healthcare frameworks may influence the impact of AMT programmes within the New Zealand setting, opening another avenue for future research. Additionally, there appears to be no research detailing the number of Registered Nurses in New Zealand who have received violence management training, despite the existence of national and international guidelines advocating this (New Zealand Department of Labour, 2009; Occupation Safety and Health Administration, 2015; Victorian Auditor-General, 2015).

## Chapter 3 Methodology

### 3.1 Research Question and Aims

The research question is: “What are Registered Nurse’s attitudes towards, and experiences of, aggression and violence in the acute hospital setting?”

The aims of the research are to:

- 1) Determine the incidence and experiences of Registered Nurse exposure to aggression and violence.
- 2) Examine the effect of age, gender, ethnicity, country of initial nursing qualification, years of experience nursing and post-graduate qualifications on Registered Nurses exposure to aggression and violence.
- 3) Establish how many Registered Nurses working in acute hospital settings have engaged in aggression management training.
- 4) Explore the effect that aggression management training has on Registered Nurse’s attitudes towards aggression and violence.

### 3.2 Research Design

This research has been conducted as an exploratory study, with information gathered through a questionnaire using the internet survey software SurveyMonkey™. A quantitative methodology was utilised, in which the variables are measurable and quantifiable and the data collection tools precise. This allowed numerical results to be analysed and used to demonstrate how a variety of different factors act and interact to influence Registered Nurse’s attitudes towards aggression and violence. A questionnaire is an effective and efficient way in which to gather a lot of information about an area in which the existing data are limited. It is particularly useful in situations such as this, where adequate baseline data does not exist (Schneider, Whitehead, Lobiondo-wood, & Hyun-Ja, 2012)

Quantitative research is guided by the positivist paradigm, the philosophical position of causality being able to be determined through objective observation and testing of a hypothesis (Schneider et al., 2012) . Quantitative research is usually conducted on

relatively large, randomly selected population groups, which enables the research findings to be generalised to a wider population (Schneider et al., 2012). The structure of quantitative research means that the data collection tool and research format are clearly outlined, allowing for the study to be replicated in different areas, with different population groups and in different time periods, further strengthening the validity and generalisability of the findings. It also enables the research design to be critically analysed and the soundness of the research process and conclusions to be assessed (Schneider et al., 2012).

The highly structured nature of quantitative research limits flexibility however, as there is no ability to adapt the design of the research to accommodate and explore new findings once the study has commenced. Therefore, only factors the researcher considered relevant to the topic are investigated and important constructs may be unknowingly neglected (Schneider et al., 2012). To ensure that this did not occur in this research project a section was incorporated into the questionnaire which gave participants the opportunity to comment on their experiences of workplace violence. It was anticipated that a qualitative approach would be necessary to analyse and interpret the responses to this question.

Qualitative research is guided by the interpretive paradigm, aiming to develop an in-depth understanding of the phenomena in question, by exploring the experiences, attitudes, behaviours and motivations of the research participants, thereby gaining insight into the factors that influence how they interpret and respond to their environment (Schneider et al., 2012). It is an inductive process in which themes emerge and are explored in a way that is not possible in quantitative research. Research findings are based upon critical analysis of the gathered data, meaning that the themes most important and relevant to the participants are heard (Schneider et al., 2012)

### **3.3 Survey Design**

The purpose of the survey was to collect information about the frequency of Registered Nurse exposure to aggression and violence, their attitudes towards aggressive behaviour and the amount of aggression management training (AMT) each had received. It was designed to be comprehensive, but concise enough that research participants remained engaged and were motivated to fully complete it. Only questions relevant to the projects

research question and research aims were included. The SurveyMonkey™ internet survey platform was chosen to design the survey due to its easy to use, customisable software. Once the survey design was finalised a trial run was completed with Registered Nurse participants to ensure that the questions were clear, the format user-friendly and no refinements necessary. At this stage an additional question was added, to determine whether those respondents who had participated in AMT considered the training to have been beneficial. The survey was broken down into four main sections, each addressing a specific research aim.

### **3.3.1 Exposure to Aggression and Violence**

The purpose of this section was to determine the incidence of Registered Nurse exposure to aggression and violence in New Zealand. Participants were asked to identify how many times in the past year they had experienced aggressive or violent behaviour that could be classified as: verbal abuse; threats; intimidation; obstructive behaviour; sexual innuendo; sexual assault; attempted physical assault - no injury; physical assault - minor injury; physical assault - major injury. Participants were then asked the same question again, but with regards to their New Zealand nursing career.

### **3.3.2 Demographic Data**

The survey collected demographic data regarding the participant's age, gender, ethnicity, country of initial registration as a Registered Nurse, post-graduate qualifications, area of practice and years of nursing. The aim was to see if any of these factors influenced Registered Nurses' exposure to aggression and violence.

### **3.3.3 Participation in Aggression Management Training**

The primary aim of this section was to establish whether the training recommendations outlined in the New Zealand Department of Labour (2009) guidelines had been implemented, by determining how many Registered Nurses have received aggression management training. Additionally, the results could be analysed and compared against the Collins' Attitudes Towards Aggressive Behaviours Questionnaire (see section 3.2.3), to determine whether those participants who had attended aggression management training had statistically different attitudes towards aggression than those who had not attended training. For the participants who had received aggression management training the

survey then asked whether the training had been voluntary or mandatory, how frequently refresher training had occurred and whether the training had meet the participants needs.

### **3.3.4 Collins' Attitudes Towards Aggressive Behaviours Questionnaire**

The Collins' Attitudes Towards Aggressive Behaviours Questionnaire is a previously tested and validated questionnaire that has been used in several research projects to determine how aggression management training influenced Registered Nurse's attitudes towards aggression and violence. The questionnaire was developed from information gathered from literature and was reviewed by a panel of experts (Collins, 1994). The Collins Attitudes Towards Aggressive Behaviours Questionnaire consists of 12 statements, to which responses are made on a five-point Likert scale, ranging from strongly agree, to strongly disagree, with an uncertain option. The reliability of the questionnaire had previously been established on test-retest as being 0.972 (Collins, 1994). The questionnaire was included in the survey to determine whether those participants who had attended aggression management training had different attitudes towards aggression than those who had not attended training.

## **3.4 Sampling**

This research project employed a non-probability, convenience based sampling strategy, utilising snowballing techniques and social media to enhance participation and response rates. Convenience based sampling may limit the generalisability of the research due to under-representation from non-participants, potentially making the sample non-representative of the population as a whole (Schneider et al., 2012). However, response rates to survey/questionnaires are typically low, meaning that gathering enough responses to use more rigorous sampling techniques may have been difficult (Schneider et al., 2012).

### **3.4.1 Sample population**

The inclusion criteria required participants to be a New Zealand Registered Nurse and currently employed in an acute hospital setting. Those currently working in a psychiatric, outpatient or community setting were specifically excluded.

### **3.5 Distribution**

The questionnaire was made available on the internet survey platform SurveyMonkey™. The survey was opened on the 1st October 2015 and closed on the 31st November 2015. It was actively promoted in one District Health Board (DHB). Posters were placed in staff and handover rooms across all qualifying departments. The posters advised participants of how to access the survey from links within the DHB computer system, but also provided the survey's URL, so that the survey could be completed at home, if privacy concerns, difficulties with computer access, or time constraints were barriers to completion. Additionally, daily reminders were placed in the electronic staff notices, through the email system and the research project was promoted at Registered Nurse study days by the education team.

Outside of the DHB, a Facebook™ page promoting the project was established and snowballing techniques were utilised to publicise the research project and gain participants. The researcher spoke at two national conferences, with high Registered Nurse attendance, outlining the aims of the research project and inviting conference attendees to participate in the survey.

### **3.6 Limitations**

Some of the features inherent to the design of this study may limit the generalisability and validity of the research and must therefore be acknowledged.

#### **3.6.1 Research Design**

With a quantitative research design, the research is limited to examining the factors which the researcher has identified as being relevant, meaning that important variables and phenomena may not be explored (Schneider et al., 2012). The inflexibility of quantitative research methods means that there is no ability to revise or adapt the design of the research once it is commenced. Thus, even if it was discovered that important factors influencing Registered Nurses' attitudes towards aggression had been overlooked these could not be incorporated into the study once it had begun (Schneider et al., 2012)

To counter this limitation a section was included asking participants to identify and comment on factors they perceived as having contributed to their experiences of aggression and violence in the workplace. Utilizing the interpretive paradigm to develop a

greater understanding of the phenomena enriches the research, by giving a voice to the research participants and allowing their experiences to be heard in a way that is not possible with quantitative methodologies alone. The validity of the study is enhanced, by ensuring that factors considered important to the topic by the participants are able to be included and themes and variables not previously considered by the researcher may be able to be identified and examined.

### **3.6.2 Survey Design**

During the research design phase it is important to consider the target population's characteristics, as these may make some survey methodologies inappropriate. It is recognised that research that is dependent on the participant's ability to read and respond to survey questions may inadvertently exclude those with low literacy levels, limiting the validity of the research (Font & Méndez, 2013). However, in New Zealand the Nursing Council requires all Registered Nurses' to have a good command of spoken and written English. Migrant Registered Nurses, for whom English is not their first language, are required to pass an English language assessment prior to registration. Therefore, poor literacy is unlikely to be a significant limitation for this research project's target population (Nursing Council of New Zealand, 2015a).

Computer literacy and access to both a computer and internet is necessary for individuals to participate in an internet survey. The target population's ability to access and complete an internet survey must be evaluated when considering this survey methodology. According to Statistics New Zealand 76.8% of New Zealand homes have internet access, implying that the majority of the target population is likely to have access to the internet and some degree of competency in computer use (Statistics New Zealand, 2015). However, to improve access to the survey a direct link was provided on the intranet of the DHB where the project was actively promoted, enabling individuals to access the survey at their place of work.

### **3.6.3 Sampling Method**

The convenience based sampling method limits the generalisability of the research, due to lack of representation from non-participants. The notoriously low rate of participation in survey and questionnaires potentially makes the sample non-representative of the population as a whole, risking a sampling bias (Schneider et al., 2012). Reminders increase

survey return rates, thus daily reminders were issued to those working in the DHB where the survey was actively promoted, in an effort to increase response rates and mitigate this risk.

#### **3.6.4 Distribution Method**

Locality approval was only sought and granted from one DHB (Appendix 2). Therefore this research project was only able to be actively promoted in one DHB. Other promotional strategies not requiring locality approval, such as social media and snowballing were utilised to reach a wider audience and the research project was advertised at national healthcare conferences. However, there is the possibility that the one DHB where the research project was able to be actively promoted is over-represented in the sample, limiting the generalisability of the results.

#### **3.7 Ethical Considerations**

Following the Health and Disability Ethics Committee flowchart it was determined that this research project did not require a HDEC review. Approval for the research was sought and granted from the Eastern Institute of Technology's Research Ethics and Approvals Committee (Appendix 3). After this approval had been granted a trial run of the survey was completed. As a result of this trial it was considered advantageous to add a question asking respondents whether their participation in AMT had been beneficial. An application was made to the Research Ethics and Approvals Committee and this addition was granted approval (Appendix 4).

As this research focused on the issues of workplace aggression and violence it had the potential to raise issues which could be distressing for participants and result in emotional or psychological harm. It was therefore considered vital to ensure that all participants were aware of this risk and made aware of how to access support, if required. All staff working for DHB's had free access to an Employee Assistance Programme (EAP) which is a confidential counselling and support service. Participants who found that they were negatively affected by participating in the survey were encouraged to contact their DHB's EAP, or other agencies involved in supporting victims of violence such as Women's Refuge, Lifeline NZ and DOVE. Contact details for these organisations were placed prominently on the questionnaire. The risk of harm to participants was considered to be balanced by the potential for this research to contribute to interventions aimed at reducing the risk of

Registered Nurses' experiencing aggression and violence and improving their ability to manage challenging incidences and situations.

The survey was designed so that participants were informed, prior to commencement, that the survey was anonymous and that the privacy and confidentiality of their information was considered a priority. Participants were actively discouraged from providing responses that may inadvertently identify them. Participants were also provided with information on the aims of the project, the fact that ethical approval had been granted and the name of the researcher and their contact details, should the potential participant have any questions. Potential participants were therefore able to make a fully informed decision when deciding whether to consent to take part in the project, or not. Participants were also informed that they could withdraw at any stage, with no consequences.

### **3.8 Data Analysis**

In quantitative research, data analysis involves either descriptive or inferential statistics (Schneider et al., 2012). Statistics are used to give meaning to numerical data, allowing researchers to describe and summarise their data (descriptive statistics) or to make inferences and come to conclusions (inferential statistics). The primary method of data analysis utilised in this research project was descriptive statistics.

Descriptive statistics endeavour to condense large sets of numerical data and summarise it in a meaningful way, so that patterns emerge from the data. Results are translated into measures of central tendency and variability. The organisation of raw data allows the researcher to identify trends and calculate simple easily understood statistical data (Schneider et al., 2012). The main strength of descriptive statistics is the ability to collect, organise and compare vast amounts of data in a manageable form. A significant disadvantage is that it is not possible to draw conclusions or make predictions (Schneider et al., 2012).

Inferential statistics allow inferences and conclusions to be made, by establishing the probability ( $p$ ) that results found for one sample are different to another sample. The level of significance is the probability that indicates whether an outcome is statistically significant (Schneider et al., 2012). The level of significance chosen for this project was 0.05, that which is accepted as the minimum level of significance for scientific disciplines (Schneider et al., 2012). Results that return a  $p$  value of 0.05 indicate the probability that

the same results would be returned 95 out of 100 times if the study was repeated and are therefore considered unlikely to have occurred by chance and are statistically significant (Schneider et al., 2012). In this study inferential statistics were used to analyse responses to the Collins Attitudes Towards Aggressive Behaviours Questionnaire to determine whether there were any statistically significance differences between those who had received AMT and those who had not.

For this project the data analysis process involved downloading the survey results from SurveyMonkey™ into Microsoft Excel™, an electronic spreadsheet programme. Survey results were then scrutinised and responses which failed to meet the studies inclusion criteria were excluded, along with those that had not provided consent to participate in the research or were incomplete. The remaining data was organised and analysed using Microsoft Excel's™ inbuilt data analysis tools. Pivot tables were used to explore the significance of the relationships between a number of variables. Responses to the Collins Attitudes Towards Aggressive Behaviours Questionnaire were collated and means, standard deviations and *p* values calculated using the Excel™ functions. The *p* values were calculated, using a two-tailed distribution and two sample un-equal variance, via the t-test in Excel™.

The section in which Registered Nurses were asked if there was anything that they wanted to tell the researcher about their experience of aggression or violence whilst working as a Registered Nurse was analysed using a general inductive approach (Thomas, 2006). The raw data was explored and summarised and the predominant themes extrapolated. Trustworthiness was established by having two supervisors independently review the raw data to check the acceptability of the analysis.

### **3.9 Data Storage**

Survey data was stored in two places: the researcher's password and fingerprint protected computer; and the SurveyMonkey™ internet survey platform. SurveyMonkey™ has extensive privacy and security policies designed to protect the data it holds and ensure that all information is stored in a safe and secure manner. Electronic versions of the data on the researcher's computer will be stored for seven years and all paper copies of the data will be shredded at the conclusion of the study.

## Chapter 4 Results

Of the 123 individuals who participated in the survey, 85 fully completed and valid survey responses were analysed. The 38 surveys not included in the data analysis included those from individuals who indicated that they did not meet the study's inclusion criteria, as they did not work in an acute hospital setting as a Registered Nurse, those that did not fully complete the survey and those that completed the survey but did not click the submit button at the end of the survey, which functioned as consent to participate in the research.

### 4.1 Demographics

Table 1: Demographics

<b>Gender</b>	<b>Female</b>		<b>Male</b>				
	82		3				
<b>Age</b>	<b>20-25yrs</b>	<b>26-30yrs</b>	<b>31-35yrs</b>	<b>36-40yrs</b>	<b>41-45yrs</b>		
	6	8	7	6	14		
	<b>46-50yrs</b>	<b>51-55yrs</b>	<b>56-60yrs</b>	<b>61-65yrs</b>	<b>65yrs+</b>		
	16	14	7	6	1		
<b>Years Experience</b>	<b>0-5yrs</b>	<b>6-10yrs</b>	<b>11-15yrs</b>	<b>16-20yrs</b>	<b>21-25yrs</b>		
	11	12	11	11	16		
	<b>26-30yrs</b>	<b>31-35yrs</b>	<b>36-40yrs</b>	<b>41yrs +</b>			
	8	9	5	6			
<b>Ethnicity</b>	<b>Australian</b>	<b>British</b>	<b>Filipino</b>	<b>Indian</b>	<b>Māori</b>	<b>NZ European</b>	<b>Unspecified</b>
	1	10	2	1	7	62	2
<b>Country of Initial Training</b>	<b>Australia</b>	<b>United Kingdom</b>	<b>Philippines</b>	<b>India</b>	<b>New Zealand</b>	<b>South Africa</b>	<b>Unspecified</b>
	2	10	2	1	68	1	1
<b>Qualification</b>	<b>RN</b>	<b>BN</b>	<b>PG-Cert</b>	<b>PG-Dip</b>	<b>Masters</b>	<b>PhD</b>	
	20	25	13	16	10	1	
<b>Participation in AMT</b>	<b>Yes</b>	<b>No</b>					
	40	45					

The 85 respondents from whom data was analysed represent a fairly wide range of the nursing population. Those identifying as male accounted for 4% of respondents and female 96% female. Seventy five percent of respondents reported being of New Zealand European (Pakeha) ethnicity, 12% British, 8% Māori, 2% Filipino, 1% Indian and Australian and 2% unspecified. Nineteen percent received their nursing training overseas.

Survey participants were well represented across the age range, with 33% aged over 50 years and 16% less than 30 years. Nursing experience ranged from 0-5 years to greater than 41 years and 47% percent of participants reported having a post-graduate nursing qualification.

Table 2 demonstrates the distribution of participants across department within the acute hospital setting. The 26% of participants represented in the 'other' category worked in diverse areas across a range of services including maternity, rehabilitation, peri-operative, pain management, palliative care, clinical nurse specialist roles and management.

Table 2: Distribution of participants across departments within the acute hospital setting

Department	Percentage (n=85)
Surgical	26% (22)
Medical	20% (17)
Emergency Department	11% (9)
Intensive Care Unit	9% (8)
Paediatrics/Child Health	8% (7)
Other	26% (20)

#### 4.2 Exposure to Aggression and Violence

Data in this section has been broken down into four main categories: experience of violence in past year, experience of violence during nursing career, experience of aggression in past year and experience of aggression during nursing career.

#### **4.2.1 Experience of violence in the past year**

Violent behaviour was broken down into four categories: assault causing serious injury, assault causing minor injury, attempted assault with no injury and sexual assault. Research participants were not given any direction on how to classify any injuries that they had received as a result of violence. They were given the option of categorising their injuries as either minor or serious. It was felt that if a participant thought they had suffered a serious injury, then the effect on them was serious, so that was how it should be recorded.

Of those surveyed, 5% reported having received a serious injury as the result of a physical assault in the past year. A further 22% reported having received a minor injury, with 32% of participants reporting more than one incident resulting in minor injury. Fifty four percent of survey respondents had been involved in an incident in the past year where there was an attempted assault, but no injury occurred. Of these, 41% reported more than one incident of attempted assault. One percent of the respondents had experienced a sexual assault in the past year.

Analysis revealed that participation in AMT, gender, age, years of nursing experience, ethnicity and post-graduate qualifications exerted no discernible effect on the likelihood of respondents experiencing workplace violence. Specifically, a history of participating in AMT did not reduce the likelihood of individuals being involved in incidences of violence. Fifty percent of those who experienced a serious injury had participated in AMT, 53% of those who had experienced a minor injury had participated in AMT and 52% of those had experienced an attempted assault with no injury, had participated in training.

#### **4.2.2 Experience of violence during nursing career**

During their nursing career 13% of the research participants had suffered a serious injury, as the result of a physical assault. An assault resulting in minor injuries had been experienced by 52% of respondents, with 43% of these reporting more than one such incident. Seventy five percent of respondents had been involved in at least one incident where there was an attempted assault, but no injury occurred. Forty eight percent of respondents reported more than one such incident, with 19% reporting more than 20 of these incidents during their careers. A sexual assault was reported by 11% of research participants. Only 16% of respondents reported having never experienced an assault or

attempted assault during their nursing career. Table 3 compares experiences of violence over the past year to that experienced during the participants nursing career.

Table 3: Experience of violence over past year and nursing career

Injury	Past Year Percentage (n=85)	Career Percentage (n=85)
Serious Injury	5% (4)	13% (11)
Minor injury	22% (19)	52% (44)
Attempted Assault	54% (46)	75% (64)
Sexual Assault	1% (1)	11% (9)

Age, years of experience, ethnicity and participation in AMT had little influence on the respondents' risk of experiencing workplace violence during their career. However, respondents with a post-graduate nursing qualification were more likely to experience an injury as the result of a physical assault than those without a post-graduate qualification. Sixty four percent of those who reported experiencing a serious injury during their career had a post-graduate qualification, whilst only 36% had no post-graduate qualification. The numbers are similar for those who reported minor injuries, with 61% of these having a post-graduate qualification and 39% having no post-graduate nursing qualification. The numbers involved in these categories are small however, and the significance of these findings is unclear without further research.

Gender had little effect on the risk of experiencing most forms of workplace violence. Being female did, however, increase the likelihood of experiencing sexual assault, with all respondents who reported a sexual assault in their career identifying as female. The validity of this finding is potentially limited however, as males were under-represented in the study. The majority of respondents (89%) who reported a sexual assault were also aged over 40 years at the time of the survey. However, there is no way to determine how old the respondents were at the time of their assault, so the researcher is unable to analyse the effect of age or nursing experience on the likelihood of experiencing a sexual assault.

#### 4.2.3 Experience of aggression in the past year

Aggressive behaviour was broken down into five specific categories: verbal abuse, threats, intimidation, obstructive behaviour and sexual innuendo. Respondents were asked to identify how frequently they had been subjected to each of these behaviours in the past year, using a drop down box which provided a variety of options from daily to yearly. Monthly rates of exposure were determined by analysing the responses which reported experiencing the aggressive behaviour either daily, biweekly, weekly, fortnightly or monthly. As noted in Table 4 the most frequently experienced form of aggressive behaviour was verbal abuse, followed by obstruction, intimidation, threats and sexual innuendo.

Table 4: Experience of aggression over past year and month

Aggressive Behaviour	Yearly Percentage (n=82)	Monthly Percentage (n=82)
Verbal Abuse	84% (70)	51% (42)
Threats	49% (40)	17% (14)
Intimidation	70% (57)	32% (26)
Obstructive Behaviour	74% (61)	48% (39)
Sexual Innuendo	49% (40)	17% (14)

Gender, age, years of experience, ethnicity and post-graduate qualifications had little effect on the respondents' experiences of most forms of aggressive behaviour. However, increased age was protective against sexual innuendo. Of those who reported sexual innuendo 37% were aged less than 35 years and 23% percent were aged greater than 50 years, despite accounting for 25% vs 33% of participants. Additionally, all of those reporting sexual innuendo were female, indicating that being male might be protective against sexual innuendo. However, as previously mentioned the limited number of male participants in this study negatively affects the validity and generalisability of this conclusion.

Participation in AMT also had no significant effect on respondents' experiences of aggressive behaviour. Though, as seen in Table 5, those who participated in AMT were slightly less likely to have experienced verbal abuse, threats, intimidation and sexual innuendo, whilst being slightly more likely to experience obstructive behaviour.

Table 5: Effect of AMT on exposure to aggressive behaviour in the past year

	Yes AMT (n=38)	No AMT (n=44)
Aggressive Behaviour		
Verbal Abuse	82% (31)	89% (39)
Threats	42% (16)	55% (24)
Intimidation	66% (25)	73% (32)
Obstructive Behaviour	79% (30)	70% (31)
Sexual Innuendo	45% (17)	52% (23)

#### 4.2.4 Experience of aggression during nursing career

Aggressive behaviour was broken down into five specific categories: verbal abuse, threats, intimidation, obstructive behaviour and sexual innuendo. Respondents were asked to identify how frequently they had been subjected to each of these behaviours during their nursing career. Analysis revealed that during their nursing career only 4% of respondents had not been verbally abused, 25% had not experienced intimidation, 15% had not been threatened, 14% had not been subjected to obstructive behaviour and 31% had not experienced sexual innuendo.

Examination of factors which might influence Registered Nurses experience of aggression during their nursing career involved analysing the characteristics of those individuals who reported infrequent exposure to aggressive behaviour. Infrequent experience of aggression was defined, as being either yearly, every couple of years or never.

Gender had little effect on respondents' experiences of verbal abuse, threatening behaviour, intimidation or obstructive behaviour. It did, however, have a significant effect on respondents' experiences of sexual innuendo, with 100% of the male respondents reporting infrequent exposure to sexual innuendo, compared to only 28% of females. The small number of male participants in this study limits the generalisability of these results.

As demonstrated in Table 6, increased age (participants over 50 years of age) appeared to have a protective effect against career experiences of threats, intimidation, obstructive behaviour and sexual innuendo, with a greater percentage of these respondents reporting infrequent exposure to aggressive behaviours. The protective effect of increased age was less with verbal abuse than the other forms of aggressive behaviours.

Table 6: Effect of age on infrequent exposure to aggressive behaviour.

Aggressive Behaviour	≤50yrs (n=57)	>50yrs (n=28)
Verbal Abuse	18% (10)	25% (7)
Threats	49% (28)	71% (20)
Intimidation	35% (20)	58% (16)
Obstructive Behaviour	28% (16)	50% (14)
Sexual Innuendo	58% (33)	68% (19)

Ethnicity generally had little effect on career experiences of verbal abuse, threats, intimidation, obstructive behaviour and sexual innuendo. However, the numbers in many of the ethnic groups represented are too small to draw inferences from. Despite this there are indicators that Māori ethnicity may be protective against exposure to aggressive behaviour. As seen in Table 7, those who identified as Māori reported infrequent exposure to aggressive behaviour at greater rates, across all categories, than NZ Europeans' (Pakeha), who were the ethnic group next most likely to report infrequent exposure to aggressive behaviour.

Table 7: Effect of ethnicity on infrequent exposure to aggressive behaviour

Aggressive Behaviour	Māori (n=7)	NZ European (n=62)
Verbal Abuse	71% (5)	24% (15)
Threats	71% (5)	56% (35)
Intimidation	57% (4)	45% (28)
Obstructive Behaviour	57% (4)	37% (23)
Sexual Innuendo	71% (5)	61% (38)

As demonstrated in Table 8, those with no post-graduate nursing qualifications appear to be slightly more likely to have infrequently experienced aggressive behaviour during their career than those with formal post-graduate nursing qualifications (Post-Graduate Certificate, Post-Graduate Diploma, Masterate and Doctorate). Only in the threatening behaviour category was this not evident, with both groups reporting similar levels of exposure.

Table 8: Effect of qualification on infrequent exposure to aggressive behaviour

Aggressive Behaviour	No Post-Graduate Qualification (n=45)	Yes Post-Graduate Qualification (n=40)
Verbal Abuse	31% (14)	23% (9)
Threats	53% (24)	58% (23)
Intimidation	49% (22)	35% (14)
Obstructive Behaviour	40% (18)	30% (12)
Sexual Innuendo	67% (30)	55% (22)

Analysis of respondent's experiences of aggressive behaviour, revealed that participation in AMT had no significant effect on the likelihood of experiencing intimidation, obstructive behaviour, threatening behaviour or sexual innuendo less frequently. However, participation in AMT may be protective against verbal abuse. Thirty eight percent of those who participated in AMT reported experiencing verbal abuse infrequently, whilst only 23% of those who hadn't participated in AMT experience verbal abuse infrequently.

#### 4.3 Participation in Aggression Management Training (AMT)

Analysis of the survey data revealed that just under half (47%) of the respondents had engaged in AMT during their nursing career. Of those who had engaged in AMT, 56% participated in training voluntarily and 80% of those responded positively, when asked whether the AMT they participated in had met their needs. However, 75% of those who had engaged in AMT had never participated in refresher training.

Examining the demographic factors affecting participation in AMT it was found that 60% of those who had participated in AMT had a formal post-graduate nursing qualification, compared to 36% of those who had not. Furthermore, those who had participated in AMT

tended to be older and had more nursing experience than those who had not. Of those who had participated in AMT 42% were aged greater than 50 years, despite accounting for only 33% of the participants and 82% of those who had participated in AMT had more than 10 years of nursing experience, whilst accounting for only 73% of participants.

Country of initial nursing registration had little effect on whether respondents had participated in AMT, with 47% of foreign trained nurses reporting participation in AMT. However, the numbers of foreign trained nurses in this study is small, so the results may not be reflective of the wider foreign trained nursing population.

#### **4.4 Collins Attitude Towards Aggressive Behaviours Questionnaire**

The Collins Attitude Towards Aggressive Behaviours Questionnaire determines how aggression management training influences Registered Nurse's attitudes towards aggression and violence. For the purpose of this research the responses from those who had participated in AMT were compared against those who had not received AMT. Respondents answered 12 questions using a five-point Likert scale, ranging from strongly agree, to strongly disagree, with an uncertain option. These responses were converted to numbers from 1 - 5 with strongly disagree = 1 and strongly agree = 5. From this mean and standard deviations for each question were able to be calculated. A t-test was applied to determine the  $p$  value, with a significance level of 0.05 being applied.

As seen in Table 9, statistically significant differences between the group who had received AMT and the group who hadn't were only recorded in two of the twelve categories. Participants who hadn't received AMT were statistically more likely ( $p=0.03$ ) to agree with the statement "Patients become violent because they felt the only way to defend themselves is to attack first". They were also statistically more likely ( $p=0.01$ ) to agree with the statement "Staff members working with mentally ill/drug/alcohol affected people can expect to be physically assaulted at some stage during their career".

Whilst not reaching levels of statistical significance, individuals who had received AMT were more likely to report feeling confident in their ability to manage a patient's behaviour as it becomes more aggressive and less likely to become so nervous that they can't think straight when a patient becomes aggressive. Those that had participated in AMT were also more likely to believe that doing the wrong thing would make a bad situation worse.

Table 9: Collins Attitudes Towards Aggressive Behaviours Questionnaire Results

Statement	Training	No Training	P
	Mean (SD)	Mean (SD)	
It is impossible to know when patients will become aggressive	2.7 (1.16)	2.76 (1.00)	0.81
Patients strike out because they are afraid	3.26 (0.89)	3.34 (0.89)	0.69
Patients become violent because they feel the only way to defend themselves is to attack first	2.73 (0.99)	3.16 (0.78)	0.03
When a patient becomes increasingly aggressive I get so nervous I can hardly think straight	2.63 (1.17)	2.8 (1.14)	0.49
Staff members working with mentally ill/drug/alcohol affected people can expect to be physically assaulted at some time during their career	3.10 (1.43)	3.8 (0.94)	0.01
Doing the wrong thing will make a bad situation worse	4.13 (0.82)	3.8 (0.84)	0.08
There is no explaining why patients become violent	2.55 (1.05)	2.56 (0.78)	0.31
Patients threaten staff to get their own way	3.45 (0.96)	3.51 (0.94)	0.77
Someone who is good at recognising the signs can tell when a patient is becoming agitated	4.1 (0.74)	3.98 (0.79)	0.47
I feel confident in my own ability to manage a patient's behaviour as it becomes more aggressive	3.65 (0.89)	3.33 (0.85)	0.10
Staff should be educated in the prevention and management of aggressive behaviour as part of their in-service education	4.63 (0.74)	4.73 (0.11)	0.45
Mentally ill/drug/alcohol affected patients are responsible for their own behaviour	3.05 (0.99)	3.16 (1.02)	0.64

## **4.5 Nurses Voices**

All survey participants were given the opportunity to inform the researcher about their experiences of aggression and/or violence whilst working as a Registered Nurse in New Zealand. Forty two of the eighty five participants choose to respond to this section of the survey. A general inductive approach was used to summarise the raw data and extrapolate the predominant themes.

### **4.5.1 Organisational/Management Failure**

One of the strongest re-occurring themes was the perception that organisations and management teams are failing to adequately meet the needs of Registered Nurses working with aggressive and violent patients. Analysis of the transcripts revealed that many Registered Nurses feel that there is a lack of support from management when dealing with aggressive patients.

"Limited support appears available from duty manager..."

"There was a total lack of support from management in dealing with this patient"

"I believe there is not enough support thru [sic] out the DHB when aggression or a violent episode happens"

Few details were given on the form of support the participants expected from management, or on the ways in which management had failed to provide appropriate support. However, several participants reported that the policies and procedures designed to help manage aggressive and violent patients safely were not being implemented by management.

"...DHB violence protocols were not followed by management"

"...Shift co-ordinator decisions on violent patients is over ridden by Duty Managers"

"The patient or their family are usually given special preference despite their behaviours"

Some respondents also reported feeling unsupported because incidents of aggressive or violent behaviour were minimised by management, who down-played the extent or impact of the behaviour in question.

"Very little support from management who play incidents down implying staff have blown the incident up"

"...Duty managers who are not conversant with the situation, and often minimise the impact of these patients"

Additionally, there were reports of management apportioning blame for aggressive or violent incidents onto the Registered Nurses involved in the situation.

"Actually heard from management on one occasion the RN contributed to this"

Lack of resourcing also emerged as an organisational failure, with respondents reporting difficulties gaining additional staffing or security support to manage aggressive or violent patients.

"...requests for assistance/watching told that staff unavailable"

"It costs money to have security be with these patients, and often I think this is fundamental to their choice to have security or not"

#### **4.5.2 Normalisation of Aggression and Violence**

The second predominant theme involves the perception that aggressive and violent behaviour within our hospitals is increasing and becoming accepted as normal. Many respondents reported experiencing an increase in aggressive and violent behaviour during their nursing career.

"Has become more common to be verbally abused and intimidated within the workplace"

"It is happening more frequently than it ever used to"

"I believe it is accelerating particularly over past few years"

The increase in aggression and violence appeared to have been accompanied by an increase in behaviour that is inappropriate, but not aggressive or violent, and a decrease in respect for staff.

"Over the years I think that the patient's behaviour, and visitors behaviour, has got worse. They are more prone to intimidation and verbal threats towards staff. There is less respect for staff, less manners used by patients"

"I cannot believe my ears sometimes when I hear the way patients and visitors talk to staff - rude, threatening, sarcastic, no manners"

"Even the children are abusive, swear at us, tell us they won't follow our rules"

Survey participants also reported an increasing tolerance for and acceptance of aggressive, violent or disruptive behaviours.

"Violence/aggression is far higher than in UK, it was a rare problem with my work over there...it appears to be more accepted here"

"...bad behaviour is not treated in our organisations"

The increase in aggressive and violent behaviour is attributed to the prevalence of aggression and violence within our communities, which has become normalised and appears to be the only way some individuals know how to cope when faced with stressful situations.

"Aggression is often linked to culture and family. Family ties are often very strong so no one will talk about it and it becomes normal behaviour which is then often shared in the community"

"Some of them have no coping skills - in their daily lives they use bullying and intimidation to achieve their aims or get their own way and they seem ever more reluctant to behave in a reasonable manner"

### 4.5.3 Factors contributing to aggression and violence

Many respondents acknowledged that there are a multitude of factors that contribute to aggressive and violent behaviour in an acute hospital setting. The role of the patient's illness in contributing to this behaviour was highlighted by a large contingent of participants.

"It's mainly from patients that are demented/confused/delirious"

"...people with psych history, dementia or confusion"

"Usually confused pts whether this be their cognitive state or due to ill health and acute events"

The conditions most frequently mentioned as contributing to aggressive or violent behaviour were: confusion, dementia, delirium, head injuries, psychiatric conditions and alcohol/drug intoxication. Participants reported that aggressive and violent behaviour from these sources was generally considered more acceptable and easier to deal with than behaviour that seemed unrelated to an illness or condition.

"Often events from patients that are delirious, which are easier to deal with"

"I feel aggression and or violence from Dementia patients is probably see as more acceptable"

"Some of my worst experiences of violence have been attempted assaults with no injury. Much worse than the minor injuries (scratches, pinches, slaps, bruises) that I've actually received from those with dementia or delirium. Having someone very aggressive and agitated, up in your face, threatening you and taking swings is MUCH worse, even if you manage to dodge the blows"

It was recognised that hospitalisation can be a highly emotive and stressful time, filled with fear and frustration for patients and relatives. The role of these emotions in contributing to episodes of aggression and violence was acknowledged by several participants.

"Most violence or aggression seems to stem from pain, frustration, general bewilderment"

"Families can be stressed and take it out on the staff"

"We deal with people who are under great stress"

One participant emphasised the importance of being accepting of these emotions, being empathetic and listening in order to defuse difficult situations.

"Hostile people usually calm down if you accept their feelings. It is important to allow people a chance to process their own internal issues, not to rush them and to listen"

The role of relatives and visitors in contributing to aggressive and violent incidents was highlighted by many participants.

"Aggression has often come from family members and not the patient"

"It is usually family/parents that cause problems with aggression and violence"

"We have to get assistance from security weekly to deal with relatives behaving in irrational and abusive ways"

Some reported finding aggression and violence from relatives and visitors harder to manage and more distressing than that from patients.

"Events from relatives being aggressive are more unsettling, scarier to deal with"

Despite widespread acknowledgment that there are mitigating factors contributing to many episodes of aggression and violence there was a general feeling that some individuals are aggressive and unpleasant for no specific reason.

"Some people are just generally unpleasant, don't seem to have any contributing factors"

"A few people are just nasty characters"

Male youths were identified as a significant source of this form of aggression and violence.

"Patients [usually male, usually young] who are aggressive for no defined reason"

"Worst...young males"

## Chapter 5 Discussion

### 5.1 Demographics

The 85 respondents from whom data was analysed were fairly typical of the New Zealand nursing population, with some exceptions. The gender distribution was not reflective of the New Zealand nursing workforce, with males being under-represented in the survey sample. The male participation rate of 4% was half of that reported in the latest workforce statistics (Nursing Council of New Zealand, 2015b). However, the two most common practice areas for male Registered Nurses are inpatient and community mental health. These areas, which employ 28% of all male Registered Nurses, were specifically excluded from this research, which may have affected the male participation rates (Nursing Council of New Zealand, 2015b).

Filipino and Indian Registered Nurses' were also under-represented in the sample at 2% and 1% respectively, whereas they each make up 7% of the New Zealand nursing workforce (Nursing Council of New Zealand, 2015b). Gaining adequate survey representation from groups that are primarily immigrant in nature is recognised as challenging and clearly was not achieved in this survey. Specialised survey strategies are often required to ensure that proportionate representation is achieved (Font & Méndez, 2013).

Māori participation in the survey at 8% was reflective of the general New Zealand nursing workforce, as was the 12% of participants who identified as British, but would be classified as '*other European*', in the workforce statistics (Nursing Council of New Zealand, 2015b). However, those identifying as NZ European (Pakeha) were over-represented accounting for 75% of the survey sample, but just 63% of the New Zealand nursing workforce (Nursing Council of New Zealand, 2015b).

Survey respondents also tended to be younger than the New Zealand nursing workforce, with only 31% aged over 50 years, compared with 41% nationally (Nursing Council of New Zealand, 2015b). Additionally, only 16% of respondents had received their training overseas, compared with 26% nationally, potentially again reflecting the under-representation of Indian and Filipino nurses (Nursing Council of New Zealand, 2015b).

A greater percentage of survey respondents than that of the New Zealand nursing workforce reported having a post-graduate nursing qualification (47% vs 38%) (Nursing Council of New Zealand, 2015b). However, whilst there is opportunity for Registered Nurses to notify the Nursing Council of having attained a post-graduate qualification, the statistics on post-graduate qualifications are only reflective of those Registered Nurses who have chosen to inform Nursing Council that they have a post-graduate qualification.

The participants in this study represented a wide range of practice areas within the acute hospital setting. The majority indicated that they worked in either a surgical or medical setting, followed by the emergency department and intensive care unit settings. Analysis of workforce statistics shows that the distribution and proportion of participants who reported working in each practice area was a fairly accurately representation of the distribution and proportion of Registered Nurses working in the acute hospital setting (Nursing Council of New Zealand, 2015b). Peri-operative nurses were the only group under-represented in this study. According to workforce statistics they are the third largest group of Registered Nurses working in the acute hospital setting, but they only accounted for 2% of this study's participants (Nursing Council of New Zealand, 2015b).

## **5.2 Experience of Aggression and Violence**

Exposure to aggression and violence is acknowledged as a significant issue for healthcare workers in New Zealand (Bentley et al., 2011; New Zealand Department of Labour, 2009). Despite this, there has only been one study investigating healthcare workers exposure to aggression and violence and none examining the incidence of Registered Nurses exposure to these behaviours in the general hospital setting. Therefore, the findings of this study are of particular importance in determining the extent of the problem within the New Zealand context and identifying factors which may influence exposure to aggressive and violent behaviour.

Exposure to aggression and violence within the general hospital setting was found to be a serious issue in this study, with abuse rates nearly equal to that found in international literature. A systematic review of 136 articles on workplace violence amongst Registered Nurses reported similar rates of physical violence (31.8% vs 27%) and non-physical violence (62.8% vs 64.25%) in the 12 months prior to the research. However, the review

incorporated research from a variety of nursing disciplines and was not restricted specifically to the general hospital setting (Spector et al., 2014).

When compared to studies focusing solely on the general hospital setting the rates of physical violence found in this study were slightly higher (27% vs 17-22.3%) than that found in international literature (Hahn et al., 2013; Park et al., 2015). This is not unexpected, as patterns of abuse are known to vary according to world region, with the Anglo region, which incorporates New Zealand, generally experiencing higher rates of physical violence against Registered Nurses than other regions (Spector et al., 2014).

Rates of exposure to violence and aggression also vary depending on the service setting, with those working in psychiatric, geriatric and emergency department settings being most at risk of experiencing aggression and violence (Spector et al., 2014). Swain et al. (2014) conducted the only previously existing research into New Zealand healthcare workers experiences of aggression and violence. A large number (63%) of the participants in Swain et al. (2014) study hailed from the psychiatric sector and responses were collected from a variety of healthcare professionals, not just Registered Nurses. Predictably, the rates of abuse reported by Swain et al. (2014) were found to be slightly higher than in this research project with regard to exposure to verbal anger (94% vs 84%) and physical assault (38% vs 27%).

Analysis of the impact of factors such as age, experience and ethnicity revealed that in this study work experience had no effect on the research participant's experiences of aggression and violence. This adds to a mounting body of evidence suggesting that increased experience does not lead to a reduction in exposure to aggressive or violent behaviours (Pompeii et al., 2013). The research indicates that experienced nurses can become over-confident in their ability to manage challenging situations, persisting with active engagement when less experienced nurses would withdraw and activate security processes (Nau et al., 2010; H. Yang, Thompson, & Bland, 2012).

In this study no correlation was found between age and the likelihood of experiencing violence or attempted violence. However, there was some evidence to suggest that older age may be protective against some forms of aggression, with those aged over 50 years being less likely to frequently experience verbal abuse, threats, intimidation and obstructive behaviour. Considerable inconsistencies still exist in the literature regarding

the effect of age on exposure to aggression and violence, with some widely differing findings (Pompeii et al., 2013). However, several studies have found that younger Registered Nurses more frequently experience all forms of aggression and violence (Hahn et al., 2013; Pompeii et al., 2013) It has been postulated that older health professionals may have age-based differences in communication and behaviour, unrelated to work experience, that makes it less likely for patients to direct aggressive behaviour towards them (Hahn et al., 2013). Further research is required to determine the true effect of age on exposure to aggression and violence.

There is some evidence of an association between being of Māori ethnicity and a reduced likelihood of experiencing aggression and violence. Whilst the number of Māori Registered Nurses in this study was small, the number who reported infrequent exposure to verbal abuse, threats, obstructive behaviour and sexual innuendo was noteworthy. The reasons for this are unclear, but all nurses bring powerful aspects of their own culture, history, attitudes and life experiences into their interactions (Nursing Council of New Zealand, 2011). Simon (2006) identified cultural affirmation, the support of and access to Māori networks and the adoption of Māori models of health, as being three critical features of Māori nursing practice. It may be that those of Māori ethnicity tend to practice nursing in ways that provide patients, regardless of their ethnicity, with a greater sense of security, comfort and understanding when faced with challenging circumstances.

### **5.3 Participation in Aggression Management Training**

In New Zealand the Health and Safety in Employment Act 1992 requires employers to provide and maintain a safe working environment, by taking all practicable steps to mitigate known hazards. As workplace violence in the healthcare sector is recognised as a serious and predictable occupational health and safety issue, employers have a legal obligation to implement strategies to reduce the risk of employees suffering harm (New Zealand Department of Labour, 2009).

AMT is widely regarded as a crucial risk minimisation strategy, an essential component in a raft of interventions that can help protect healthcare workers from workplace violence (New Zealand Department of Labour, 2009; Victorian Auditor-General, 2015). Participation in AMT provides healthcare workers with the opportunity to develop skills and confidence in managing potentially volatile situations in a safe, professional, legal and ethical manner,

thereby mitigating the impact of workplace violence (Kynoch et al., 2011; Occupation Safety and Health Administration, 2015). For this reason many professional organisations and government departments have established guidelines emphasising the importance of healthcare workers receiving AMT (Health Service Working Group on Work-Related Aggression and Violence, 2008; International Labour Office et al., 2002; New Zealand Department of Labour, 2009; Occupation Safety and Health Administration, 2015; Victorian Auditor-General, 2015).

The New Zealand Department of Labour (2009) and Victorian Auditor-General (2015) have both recommended that all healthcare employees are provided with AMT on a regular and ongoing basis. The New Zealand Department of Labour (2009, p. 20) guidelines on managing the risk of workplace violence to healthcare and community service providers states that "all employees entering this sector should receive relevant and adequate training both at entry (induction) and at regular intervals as relevant".

Data from this research project indicates that these recommendations are not currently being met. Only 47% of survey respondents reported having participated in AMT, with only 25% of these having engaged in some form of refresher training. Those who were younger and with less nursing experience were less likely to have received AMT, a correlation which implies that the lack of participation in training is a current, not historical, issue.

Whether the lack of participation in AMT is due to employers failing to provide AMT or because Registered Nurses' are failing to participate in AMT is unfortunately unable to be determined from this research. However, only 44% of those who had received AMT reported participation as being a mandatory requirement, indicating that in many areas participation in, and provision of, AMT is considered optional.

Under the Health and Safety at Work Act (2015), employers must ensure that employees receive the necessary training to enable them to safely perform their duties. Data from this study suggests that many employers are failing in their duty to take all practicable steps to mitigate the risk of workplace violence by failing to ensure that their employees are provided with and participating in AMT. Making AMT a mandatory requirement of employment would fulfil their legal requirements to mitigate the risk of workplace violence by providing an adequate level of training. The Health and Safety in Employment Act 1992 also requires employees to take all practicable steps to ensure their own safety at work.

This behoves Registered Nurses' to engage in AMT when offered, even if not mandatory, such is the recognised risk of harm from aggressive and violent behaviour.

Inadequate provision of and participation in AMT is not just an issue in the New Zealand healthcare sector. AMT is still not offered universally or consistently in many jurisdictions, despite widespread acknowledgment of the importance of such training (Beech & Leather, 2006). A recent review of Victorian health services strongly criticised the lack of AMT available for general hospital staff. Whilst 81% of Victorian hospitals provided AMT, 44% of those reported that training was mandatory only for security, mental health and emergency department staff (Victorian Auditor-General, 2015). The training provided was described as inadequate and not responsive to the risks posed by workplace violence. These findings corroborate those of a 2013 audit which cited insufficient and inadequate AMT as an indicator of failure to accord adequate priority to the maintenance of occupational health and safety in Victorian public hospitals (Victorian Auditor-General, 2013).

Despite acknowledgment of the importance of AMT in preventing violence, few AMT programmes have been evaluated for effectiveness in terms of impact on learning or organisational outcomes (Gerdtz et al., 2013). Researchers state that there is an urgent need for research investigating the effectiveness of AMT programmes, as there is currently a lack of evidence as to what constitutes safe and acceptable practice and a lack of clarity about how to best structure and deliver programmes (Beech & Leather, 2006; Health Service Working Group on Work-Related Aggression and Violence, 2008; Heckemann et al., 2015; Victorian Auditor-General, 2015).

Most AMT programmes delivered to general hospital staff are based upon programmes developed for psychiatric or emergency department staff and therefore may not adequately address the challenges faced by general hospital staff (Hahn et al., 2013). As a result, the AMT provided to general hospital staff is often poorly designed and provided in an *ad hoc* manner that fails to meet the needs of participants (Beech & Leather, 2006; Grenyer et al., 2004).

Studies have yet to establish a link between participation in AMT and a reduction in the frequency of exposure to aggressive and violent behaviour. Hahn et al. (2013) and Arnetz and Arnetz (2001) found that those who had received training were at greater risk of

experiencing aggression and violence, whilst Lepping et al. (2013) and Heckemann et al. (2015) found that participation in AMT had no statistically significant effect on the risk of experiencing aggression and violence. Analysis of the data from this study has shown similar results, with no association noted between the rates of aggression and violence experienced by those who had received AMT and those who had not.

Several explanations for these findings have been postulated (Arnetz & Arnetz, 2001; Gillespie et al., 2010; Hahn et al., 2013). However, the possibility that current models of AMT are ineffective in reducing incidents in the acute hospital setting must be considered, given the strong criticism about the quality of existing training programmes, the deficit of service specific training and concerns about the lack of evidence guiding programme content, design and delivery (Beech & Leather, 2006; Grenyer, 2004; Health Service Working Group on Work-Related Aggression and Violence, 2008; Victorian Auditor-General, 2015).

In a study of Victorian nurses and midwives Farrell and Shafiei (2012) found that 43% of those who had attended AMT found it to be only marginally effective or not effective at all. This contrasts sharply with the findings of this study in which 80% percent of participants who had received AMT felt that it had met their needs. It is possible that these contrasting findings are related to the quality of the AMT programmes that the participants engaged in. If so, the findings highlight the inconsistencies that researchers and auditors have identified in how AMT is currently provided.

The Victorian Auditor-General (2015) report called for development of comprehensive, relevant and high quality training programmes tailored to meet participants needs. There is a growing consensus that AMT programmes should be evidence based, flexible and service specific, customised to meet the needs of individual departments (Gerdtz et al., 2013; Health Service Working Group on Work-Related Aggression and Violence, 2008; Victorian Auditor-General, 2015). To achieve this there is an urgent need for research to establish best-practice guidelines for AMT programmes in a variety of different settings, including the acute hospital setting.

#### **5.4 Collins Attitudes Towards Aggressive Behaviours Questionnaire**

Attitudes towards aggression and violence significantly influence clinical judgement and professional behaviour (Hahn et al., 2012). Positive behavioural changes are dependent not just on the acquisition of new knowledge and attainment of practical task based skills, but on critical reflection and examination of existing attitudes and the effect that these have on behaviour (Nau et al., 2010). For AMT programmes to achieve enduring and pervasive changes in how Registered Nurses assess, evaluate and respond to incidences of workplace violence they must address the fundamental attitudes that are held about aggression and violence (Hahn et al., 2012).

As positive attitudinal changes are key to positive behavioural changes, changes in attitude are commonly used to determine the efficacy of AMT (Collins, 1994; Grenyer et al., 2004; Zarola & Leather, 2006). For the purpose of this study AMT efficacy was assessed by analysing responses to the Collins Attitudes Towards Aggressive Behaviours Questionnaire (CATABQ) and comparing the results between those participants who had received AMT and those who had not. Five broad themes initially described by Collins (1994) were used as the basis for analysis: prediction; patient motivation and responsibility for aggression; staff anxiety and fear of assault; the need for skilled intervention to prevent and manage aggression; and staff confidence.

##### **5.4.1 Prediction**

Despite the multifarious nature of aggression and violence many incidents are predictable and preceded by recognisable behavioural and emotional changes (Arnold & Boggs, 2016). The successful implementation of interventions designed to stop the escalation of aggressive or violent behaviour is dependent on the ability to recognise and predict these situations (Chapman et al., 2009). Therefore, holding the belief that episodes of aggression or violence can be predicted is considered a positive attitude (Collins, 1994).

Two statements on the CATAB questionnaire assessed respondents' attitudes towards the predictability of aggression. "It is impossible to know when patients will become aggressive" and "There is no explaining why patients become violent". The training and non-training groups recorded very similar responses to both these questions. A positive change in attitude post AMT training would have been demonstrated by the training group disagreeing more strongly with the two relevant statements than the non-training group.

This was not seen, indicating that attitudes towards the predictability of aggression were unaffected by participating AMT. Importantly both the training and non-training groups returned responses indicating that they were relatively uncertain whether aggressive behaviour was predictable.

As discussed previously there is concern amongst researchers that AMT programmes are often inadequate and ineffective, due to a lack of reliable evidence guiding programme content, design and delivery. The lack of change noted between the training and non-training groups may be because the issue of predictability was not adequately addressed in the AMT programmes that the study participants engaged in.

#### **5.4.2 Patient motivation and responsibility for aggression**

Most individuals receiving healthcare services are experiencing some form of physical, psychological or spiritual distress (Arnold & Boggs, 2016). The process of hospitalisation is inherently stressful for both the patient and their relatives. Anxiety, anger and hostility are common behavioural responses to feelings of stress and helplessness and it is to be expected that Registered Nurses will encounter individuals displaying these emotions. In some situations these common, acceptable and healthy emotional responses to stressful situations escalate, resulting in maladaptive behaviours such as aggression and violence (Arnold & Boggs, 2016).

Recognising that there is often real and valid emotional distress driving aggressive behaviours enables Registered Nurses to employ therapeutic interventions to explore and address underlying issues and defuse the behaviour (Levett-Jones, 2014). Failure to acknowledge or explore potential drivers of aggressive behaviour can lead to non-therapeutic interactions and an escalation of unwanted behaviours (Arnold & Boggs, 2016).

The following four statements assessed the survey participants' attitudes about the motivations underpinning aggressive behaviour and the degree of responsibility attributable to patients displaying aggression: "Patients strike out because they are afraid"; "Patients become violent because they feel the only way to defend themselves is to attack first"; "Patients threaten staff to get their own way"; and "Mentally ill/drug/alcohol affected patients are responsible for their own behaviour".

Collins (1994) and Grenyer et al. (2004) state that a positive change in attitude would be demonstrated by increasing agreement with three of the four statements, but increasing disagreement with the statement "Patients threaten staff to get their own way".

Interestingly, the group which had received AMT was more likely to disagree with all four statements. This indicated that in three out of the four situations they held less desirable attitudes towards patient motivation and responsibility than the group which had not received training, only demonstrating a more positive attitude with regards to the statement "Patients threaten staff to get their own way".

A negative association was discovered, as those who had received AMT displayed less desirable attitudes about patient motivation and responsibility than those who had not received training. Statistical significance was reached ( $p=0.03$ ) with regards to the statement "Patients become violent because they feel the only way to defend themselves is to attack first". This was indicative of a statistically significant negative change in attitudes amongst the group which had received AMT training.

The reasons for this are unclear. In trials using the CATABQ both Collins (1994) and Grenyer et al. (2004) reported that attitudes in this section moved in a positive direction after participation in an AMT programme. Collins (1994) did report however, that the strength of the change in attitudes was decreased at the six month mark. It is possible that the AMT programmes attended by these participants did not adequately address issues of patient motivation and responsibility, or that any changes in attitude were not sustained over time. As 75% of those who had participated in AMT had not participated in refresher training, this is a strong possibility.

#### **5.4.3 Staff anxiety and fear of assault**

It is axiomatic that high staff anxiety about aggression and violence is associated with an increased risk of aggression and violence. Anxious and fearful staff members are less able to provide therapeutic interventions or to respond to escalating situations in an appropriate manner. These staff members tend to interact more negatively with aggressive and potentially violent patients (Eker et al., 2012). Often patient-avoiding strategies are employed, where the staff member is less responsive to the patient's needs, takes less interest in them and spends less time with them. These behaviours can result in

a negative cycle where the fear of assault leads to staff disengagement which leads to an escalation of negative behaviours (Arnetz & Arnetz, 2001; Eker et al., 2012).

The literature documents a strong association between engagement in AMT programmes and a reduction in staff anxiety and fear of assault (Collins, 1994; Grenyer et al., 2004). This correlation was borne out in this study, with the group which had received AMT returning more positive responses to both the statements pertaining to staff anxiety and fear of assault

The group which had received AMT showed a greater level of disagreement with the statement "When a patient becomes increasingly aggressive I get so nervous I can hardly think straight" and a greater level of agreement with the statement "Staff members working with mentally ill/drug/alcohol affected people can expect to be physically assaulted at some time during their career". The direction of change for both of these statements is positive, demonstrating that those who had received AMT had more positive attitudes about their own levels of anxiety and fear of assault. Statistical significance ( $p=0.03$ ) was reached in the statement "Staff members working with mentally ill/drug/alcohol affected people can expect to be physically assaulted at some time during their career".

These results indicate an association between engagement in AMT and statistically significant positive changes in staff anxiety levels and fear of being assaulted. The literature suggests that this is likely to lead to staff engaging more positively with patients displaying aggressive behaviour and fewer incidents of workplace violence.

#### **5.4.4 Need for skilled intervention**

It is widely acknowledged that skilled intervention is required to safely predict, prevent, de-escalate or contain incidents of aggression and violence. Researchers and policy makers actively advocate for the development of these skills through participation in comprehensive and service specific AMT programmes (Beech & Leather, 2006; Health Service Working Group on Work-Related Aggression and Violence, 2008; New Zealand Department of Labour, 2009; Victorian Auditor-General, 2015). Registered Nurses who have the belief that specific skills are required to manage escalating behaviours are more likely to engage in skill acquisition and utilisation, making this a positive attitude to have.

Three statements assessed participant's attitudes towards the need for skilled intervention. " Doing the wrong thing will make a bad situation worse ", " Someone who is good at recognising the signs can tell when a patient is becoming agitated" and " Staff should be educated in the prevention and management of aggressive behaviour as part of their in-service education". Both the training and non-training groups recorded positive responses to these statements. The group which had received training recorded slightly more positive results with regards to two of the questions, however statistical significance was not reached. Overall there was a strong acknowledgement of the need for skilled intervention, with both groups demonstrating desirable attitudes. The lack of any significant difference between the training and non-training groups may be due to a widely existing positive attitude.

Despite the overwhelming belief that skilled interventions are necessary for the successful resolution of aggressive or violent incidents there is a lack of evidence as to which interventions are effective (Deans, 2004). Most knowledge on how to manage aggressive and violent behaviour stems from research done in psychiatric and emergency department settings (Kynoch et al., 2011). The drivers of aggressive and violent behaviour in these areas are different than those within the general hospital setting. Therefore, interventions appropriate for these settings may be less effective, ineffective or inappropriate in the general hospital setting (Kynoch et al., 2011). There is a need for further study, investigating the interventions which are most valuable for staff members working in a general hospital setting.

#### **5.4.5 Staff confidence**

Managing aggressive or violent situations safely and effectively requires staff to be confident in their ability to deliver interventions. Confidence is such an important attitude affecting the management of aggressive and violent behaviour that confidence levels are often used to evaluate the effectiveness of AMT programmes. Tools such as the Confidence In Dealing With Patient Aggression Instrument (Thackrey, 1987) have been developed specifically to assess individuals' confidence in utilising psychological and physical strategies to ensure personal safety and de-escalate situations therapeutically.

Only one question on the CATABQ addressed staff confidence in managing aggression: "I feel confident in my own ability to manage a patient's behaviour as it becomes more aggressive". Participants who had received AMT indicated that they were slightly more confident than those in the non-training group. These results were not statistically significant however. Notably, the responses from both groups suggest that overall the participants are uncertain about their ability to manage behaviour as it becomes more aggressive, indicating that they lack confidence in their ability to intervene safely and effectively.

## **5.5 Nurse's Voices**

### **5.5.1 Perception of Organisational/Management Failure**

This research identified that there was a wide-spread belief amongst the Registered Nurse participants that organisational and managerial responses to incidents of aggression and violence were inadequate. This belief was based upon experiences which had shown the participants that incident severity was often unappreciated, there was a failure to consistently implement the relevant policies and procedures and the resources demanded by the incident were often not available. These experiences resulted in Registered Nurses' feeling unsupported by management when confronted by incidents of aggression and violence. Phrases like 'limited support', 'not enough support' and 'total lack of support' were used to emphasise this situation.

The concerns voiced by the participants are neither unique, nor unfounded, with multiple studies describing similar findings and identifying the need for greater managerial support both during and after incidents of workplace violence (Farrell & Shafiei, 2012; Sato et al., 2013; Speroni et al., 2014). In one study only 45% of the respondents reported that organisational responses to incidents of aggression or violence were "very good" or "good" (Farrell & Shafiei, 2012), whilst the Victorian Auditor-General (2015) found that the staff were correct in their perception that management failed to provide adequate support during incidents of violence, with insufficient managerial responses and investigations occurring in all but the most serious of cases.

The Victorian Auditor-General (2015) also identified issues with the way in which severity ratings were applied to incidents. Many examples were found where situations had been categorised as being 'mild' or 'near miss', but actually had a high potential for harm or had

caused harm. If this poor understanding and inappropriate classification of incidents is a wide-spread issue it may have contributed to the perception held by the Registered Nurses<sup>1</sup> in this study that incident severity is minimised by management. The fact that only those incidents classified as serious are properly investigated, potentially results in the victim feeling that the incident has been ignored, further increasing the perception that incidents are minimised and contributing to staff feeling inadequately supported (Victorian Auditor-General, 2015).

Participants in this study highlighted the failure to implement policies and procedures appropriately as an issue hindering their ability to manage aggressive and abusive situations effectively. Both management teams and Registered Nurse colleagues were identified as being contributory to this problem. In New Zealand the practice of Registered Nurses is governed by legal, professional and ethical standards that are outlined in the Health and Disability Commissioner Act 1994 Consumer Code of Rights, Nursing Council of New Zealand Code of Conduct and the New Zealand Nurses Organisation Code of Ethics. Registered Nurses are obligated to provide safe and competent care, must ensure that their actions do not harm the health or safety of the health consumer and must endeavour to bring about professional good in the clients health (Health and Disability Commissioner Act, 1994; New Zealand Nurses Organisation, 2010; Nursing Council of New Zealand, 2012).

Policies and procedures exist to guide decision making in the variety of complex clinical contexts in which violence can occur providing Registered Nurses with courses of action which are professionally, legally and ethically safe (Health Service Working Group on Work-Related Aggression and Violence, 2008). They protect the safety of both the patient and the Registered Nurse. Failure to adhere to these policies and procedures is a breach of the patients' right to receive safe and competent care, as outlined in the Consumer Code of Rights, and can lead to legal or professional consequences (Health and Disability Commissioner Act, 1994; Health Service Working Group on Work-Related Aggression and Violence, 2008; Nursing Council of New Zealand, 2012).

An audit conducted by the Victorian Auditor-General (2015) revealed that staff generally had a poor knowledge of the policies and procedures related to workplace violence, as these were not communicated effectively or implemented consistently. As a result, deficiencies were found in incident investigation, implementation of risk alerts and initiation of behaviour management plans (Victorian Auditor-General, 2015). Managers

have been found to play an important role in ensuring that policies and procedures are understood and enforced, behavioural strategies appropriately implemented and suitable sanctions imposed when breaches occur, with the consistent and effective implementation of policies and procedures by management being protective against incidents of aggression and violence (Farrell & Shafiei, 2012). However, whilst the role of management is important, all Registered Nurses are professionally, legally and ethically obligated to ensure that they understand and are confident following the policies and procedures applicable to their facility or department.

Well designed, high quality and comprehensive AMT programmes provide education on the policies and procedures surrounding: the documentation of escalating behaviour; the summoning of emergency help; the implementation of progressive behaviour control methods; the recording and reporting of incidents; and the investigation of incidents (New Zealand Department of Labour, 2009; Occupation Safety and Health Administration, 2015). Participation in AMT programmes has been shown to increase participants knowledge of and compliance with the policies and procedures relating to workplace violence (Deans, 2004).

The existence of a culture that has a strong commitment to ensuring staff wellbeing is crucial to creating an environment where staff feel valued, supported and safe in their work (Farrell & Shafiei, 2012; Health Service Working Group on Work-Related Aggression and Violence, 2008). The Victorian Auditor-General (2015, p. iii) states that " I cannot be assured that the systems and processes in place to protect healthcare workers are as well understood, comprehensive, robust and embedded in the culture of healthcare services as those that have been put in place for patients". The findings of this research echo the above sentiments, showing that additional steps need to be taken to develop a strong safety conscious and supportive culture in the healthcare facilities represented in this research. Ensuring that Registered Nurses and their managers participate in comprehensive and high quality AMT programmes is a strategy which will go some way to helping develop this culture.

### 5.5.2 Normalisation of Aggression and Violence

The participants in this study reported being confronted with aggressive and violent behaviour more frequently than in the past, using phrases like 'accelerating', 'happening more frequently' and 'become more common' to describe their experiences of workplace violence. The participants are not alone in reporting increased exposure to aggression and violence, with increases in the frequency and severity of workplace violence occurring internationally (Holmes et al., 2012).

Figures obtained by (Theunissen, 2015) under the Official Information Act showed that assaults against healthcare workers in New Zealand rose from 817 in 2010 to 1148 in 2013. Whilst these figures demonstrate an increasing rate of assaults it is likely that they under-represent the true incidence of assaults against healthcare workers, due to this groups' tendency to under-report incidents of aggression and violence (Health Service Working Group on Work-Related Aggression and Violence, 2008; Speroni et al., 2014; Victorian Auditor-General, 2015). Despite this, the statistics support the participant's perception that they are more frequently experiencing incidents of aggression and violence.

Some of the Registered Nurses in this study attributed the increasing rates of aggressive and violent behaviour within the acute hospital setting to an increased prevalence of aggression and violence within the wider community. Aggressive behaviour was seen to have become normal behaviour, which was displayed within families, communities and hospital facilities in order to obtain the outcome desired by the aggressor. Data from Statistics New Zealand (2006) revealed that whilst the overall crime rate has decreased since 1992, violent offending has increased steadily. This increase is largely the result of an increase in threats, intimidation, grievous assaults and family violence (Ministry of Justice, 2008; Statistics New Zealand, 2006). It is not clear however, whether this increase is due to an actual increase in violent offending or the result of changes in police practice leading to greater apprehension for these crimes (Ministry of Justice, 2008).

Factors associated with violent behaviour include: poor family functioning; socio-economic disadvantage; neuro-developmental impairment; detachment from education, substance abuse and association with antisocial peers (Ministry of Justice, 2008). If societal changes have led to a true increase in violent offending as the result of an increased prevalence of

the factors outline above then it makes sense that those working in the healthcare system are also reporting an increase in aggressive and violent behaviours.

It is a logical extrapolation that if violent offending is increasingly common and accepted in our communities than this will be reflected in our hospitals. Healthcare workers care for the perpetrators, victims and family members affected by violent crime, often whilst they are still agitated and upset. Hospitalisation is a stressful experience, with fear, anxiety, frustration and anger being commonly experienced by patients' and their families, regardless of the cause of their admission (Arnold & Boggs, 2016). These individuals' may not have the emotional or psychological resources to mitigate their behaviour, leading to displays of behaviours which are accepted or tolerated in their communities, but not by those providing care (Arnold & Boggs, 2016).

Several of the participants in this study reported that males, especially young males, were a frequent source of aggressive and violent behaviour, an observation that is potentially true. Young men are more likely to commit violent crimes than young women (Ministry of Justice, 2008). In New Zealand youth aged 14-16 years account for five percent of the population, but are responsible for ten percent of all recorded violent offences (Ministry of Justice, 2008). Furthermore, international studies indicate that the actual level of violent offending by male youths is likely to be higher than that officially recorded, with 10-25% of 16-17 year olds committing at least one serious violent crime per year, many of which occur whilst the perpetrator is under the influence of alcohol or illegal drugs (Ministry of Justice, 2008).

In New Zealand, male youth and young adults (15-34 years) are more likely to report heavy drinking, binge drinking, drinking to intoxication and drinking whilst taking illicit drugs than any other group (Ministry of Health, 2015). These drinking patterns increase risk taking behaviours (Ministry of Health, 2013; World Health Organization, 2007). Correspondingly, male youth and young adults are more likely to have experienced a physical or mental harm or injury as the result of their alcohol use and are more likely to have experienced a violent harm from other people's drinking (Ministry of Health, 2015).

The natural consequence of these behaviours is that male youth and young adults are more likely to present to a healthcare facility whilst intoxicated or under the influence of illicit substances. The health system is heavily burdened by the effects of alcohol and drug

related harms (Ministry of Health, 2013). In Australia and New Zealand 8.3% of all Emergency Department presentations are alcohol related, with male youth and young adults accounting for a large percentage of these presentations (Australasian College for Emergency Medicine, 2015). As aggression and violence are behaviours commonly associated with drug and alcohol use it is not surprising that the Registered Nurses in this study reported encountering aggression and violence from male youth at seemingly disproportionate rates (Australasian College for Emergency Medicine, 2015).

### **5.5.3 Factors Contributing to Aggression and Violence**

Registered Nurses care for patients and their families during some of their most private and vulnerable moments. It is widely acknowledged that a multitude of factors influence how individuals behave during these times (Arnold & Boggs, 2016; International Labour Office et al., 2002). Dynamic interactions occur between physical, psychological, spiritual, social and financial stressors and environmental, organisational and societal factors, which can result in aggressive or violent behaviour.

Surprisingly, only two of these complex and intricately interwoven factors were highlighted by the research participants as having a significant impact on their experiences of aggression and violence. Most Registered Nurses' identified the patient's clinical condition as being the main cause of aggressive and violent behaviour, with several stating this behaviour was more acceptable and easier to deal with than aggression or violence triggered by other factors. The role fear and anxiety played in displays of aggression and violence was also recognised, with participants acknowledging that often both the patient and their families were dealing with a great amount of stress. A number of participants believed that some individuals had an inherently negative demeanour, and became aggressive and violent without any identifiable contributory factors.

Duxbury (2002) found there was a contrasting perspective of the factors influencing aggression and violence between patients' and staff. Patients viewed external factors such as poor communication and environmental issues as being the primary causes of aggression and violence, whilst healthcare staff were more likely to attribute these behaviours to factors internal to the patient, such as their clinical condition or innate character (Duxbury, 2002). Farrell et al. (2014) found that when factors external to the patient, such as facilities, staffing and management practices were of high standard the risk

of aggression and violence was reduced. However, the Registered Nurses in this study reported findings similar to that in (Duxbury, 2002) with the Registered Nurses mostly attributing aggression and violence to factors internal to the individual.

It has been found that staff who accept that factors external to the patient can significantly negatively influence behaviour are likely to utilise a wider range of strategies when faced with aggressive or violent behaviour (Duxbury, 2002). Gerdtz et al. (2013) stated that observable improvements in communication and inter-personal behaviours were noted after critical reflection was used to develop the Registered Nurse's understanding of the patient's perspective. It was also noted that participants were significantly less likely to agree with the statement "there appears to be types of patients who frequently become aggressive", indicating an increased understanding of the fact that external factors unknown or unappreciated by the Registered Nurse may be affecting behaviour (Gerdtz et al., 2013).

The participants in this study demonstrated an understanding that hospitalisation can be highly stressful and frustrating and that many patient's abusive behaviour was unintended and the result of their clinical condition. However, it did not appear that there was a deeper recognition of the role that external factors play in increasing the degree of stress, fear, frustration and anger experienced by those they care for. Without an appreciation of these factors, changes in communication, inter-personal behaviour and environment cannot occur. Interestingly, developing an understanding of the patients' perspective can also reduce the degree to which Registered Nurses are personally affected by episodes of aggression and violence, indicating that inclusion of this concept in AMT programmes could be beneficial for both patients and Registered Nurses (Vandecasteele et al., 2015).

## Chapter 6 Summary and Conclusions

### 6.1 Summary

Incidents of aggression and violence against healthcare workers are increasing in frequency and severity. Historically, psychiatric and emergency departments were considered to bear most of the burden of such behaviour (Kynoch et al., 2011). However, there is now increasing recognition that Registered Nurses in all sectors of healthcare provision, including the acute hospital setting, are vulnerable to aggression and violence (Hahn et al., 2008; International Labour Office et al., 2002; Kynoch et al., 2011).

Registered Nurses are at particular risk of experiencing violence due to the nature of their work. They engage with individuals experiencing physical, psychological and or spiritual distress on a daily basis. Feelings of frustration, fear, anxiety and hopelessness are common reactions to illness or injury, which may be further compounded by financial, familial and social stressors (Arnold & Boggs, 2016). Coping strategies can easily be strained by pain, fatigue, loss of independence, failed expectations or the provision of inappropriate or inadequate care (Beech & Leather, 2006). Some clinical conditions negatively affect the patient's ability to understand their environment and make intentional and premeditated decisions, resulting in unintended displays of aggressive or violent behaviour (Hahn et al., 2013; New Zealand Department of Labour, 2009; Victorian Auditor-General, 2015).

Aggression and violence can manifest in a multitude of ways including: verbal abuse; verbal threats; disruptive behaviour, obstructive behaviour, physical threats; physical assault; or sexual assault (Health Service Working Group on Work-Related Aggression and Violence, 2008). The effects of this violence can be profound at an individual, collegial and organisational level, resulting in physical, psychological and financial harm and impacting on the quality of patient care. (Beech & Leather, 2006).

A multitude of factors have been identified as being critical in efforts to reduce the impact of aggression and violence. Of these, AMT training has widely been acknowledged as being of major importance, enabling Registered Nurses to develop the knowledge, skills, attitudes and confidence necessary to manage incidents in a safe and professional manner (Beech & Leather, 2006; Gerdtz et al., 2013; Kynoch et al., 2011).

Aggression and violence within the healthcare system has been poorly researched in New Zealand. There is a paucity of literature examining Registered Nurse's experiences of aggression and violence within the acute hospital setting and none examining the uptake and effectiveness of preventative interventions like AMT. This research project aimed to increase local knowledge about this phenomenon. It gathered baseline data about the incidence of Registered Nurse exposure to aggression and violence, established the rate of Registered Nurse participation in AMT and explored the effect of AMT on attitudes towards aggression and violence.

This exploratory research study primarily employed a quantitative methodology, with a small qualitative component. The SurveyMonkey™ internet survey platform was used to design and distribute the survey, which included the previously validated Collins' Attitudes Towards Aggressive Behaviours Questionnaire. Eighty five fully completed and valid questionnaires were returned. The data was entered into the electronic spreadsheet programme Microsoft Excel™ and analysed using the system's inbuilt data analysis tools.

Results from this study show that Registered Nurses working in acute hospital settings in New Zealand experience aggression and violence at rates similar to those found internationally (Hahn et al., 2013; Park et al., 2015; Spector et al., 2014). Twenty seven percent of participants reported having experienced an injury due to violence in the past twelve months and 64% had experienced such an injury during their nursing career. Seventy five percent had experienced an attempted assault (non-injurious) during their nursing career and 11% had been sexually assaulted. Eighty four percent had been verbally abused in the past year, 74% had been faced with obstructive behaviour, 70% had been intimidated, 49% had been threatened and 47% had been subjected to sexual innuendo.

There was generally little evidence that age, gender, years of experience, qualifications or ethnicity had any significant effect on Registered Nurse's experiences of aggression and violence. However, being of Maori ethnicity and being aged over 50 years was associated with a reduced likelihood of experiencing all forms of aggressive behaviours.

It was found that 47% of respondents had participated in an AMT programme and 25% had attended a refresher course. Eighty percent believed that the AMT programme they attended had met their needs. However, this exploratory study found that those who had attended an AMT programme were just as likely to experience aggression and violence as

those who had not. There was only limited evidence pointing to a correlation between participation in an AMT programme and significant changes in attitudes towards aggression, with responses to the Collins' Attitudes Towards Aggressive Behaviours Questionnaire revealing only one statistically significant positive change in attitude (out of a possible 12).

Registered Nurses voiced concerns about increasing levels of aggression and violence within the acute hospital setting and what is seen as increasing acceptance and tolerance of these behaviours. They believed that they were not receiving adequate levels of support to manage these situations, raising concerns about managerial responsibility and poor implementation of organisational policies relating to workplace violence.

## **6.2 Conclusions**

The data collected in this exploratory survey indicates that Registered Nurses working in acute hospital settings in New Zealand are exposed to significant levels of aggression and violence, comparable to that found internationally. They are therefore at risk of experiencing the multitude of negative effects associated with aggression and violence.

Provision of and participation in AMT was inadequate amongst survey participants. These results suggest that the healthcare institutions employing the survey participants are not meeting the recommendations for AMT provision outlined in the New Zealand Department of Labour (2009) guidelines. As a result, both the healthcare organisations and Registered Nurses are failing to meet their obligations under the Health and Safety at Work Act (2015), which requires employers and employees to take all practicable steps to mitigate known hazards.

This study found that there was no significant correlation between participation in AMT and exposure to aggression or violence. Furthermore, only limited evidence was found indicating an association between participation in AMT and improved attitudes towards aggression and violence.

Registered Nurses report that they require more support both during and after incidents of aggression and violence. The literature suggests that the policies and procedures relevant to workplace violence are unlikely to have been communicated effectively or implemented consistently (Victorian Auditor-General, 2015).

### **6.3.1 Recommendations for Practice**

High quality, relevant and service specific AMT programmes should be made a mandatory requirement of employment for all Registered Nurses' and managers working within the healthcare system. AMT should be commenced at induction to employment and refreshed regularly.

Healthcare organisations should maintain a record of participation in AMT to facilitate auditing.

Adequate training should be provided to those assigned to investigate incidents, to ensure that the incident analysis is robust, systematic and of high quality, reflects incident severity accurately and provides productive feedback and interventions based on both incident and trend analysis.

Policies and procedures relating to workplace violence should be reviewed to ensure that they are supportive of the professional, ethical and legal environment in which Registered Nurses work and that they are based upon sound analysis of the incidents and risks specific to the areas for which they apply.

### **6.3.2 Recommendations for future Research**

There is a need for research examining the effectiveness of AMT programmes in terms of learning, confidence in managing of aggression and violence, rates of exposure to aggression and violence and organisational outcomes.

There is an urgent need for research to establish best-practice guidelines for AMT programmes in a variety of different settings, including the acute hospital setting.

There is a need for longitudinal research tracking changes in the incidence of aggression and violence over time.

Future New Zealand based research should endeavour to ensure that a more proportionate representation of the New Zealand Registered Nurse workforce demographics is achieved, especially with regards to ethnicity and gender, utilising specific sampling strategies if required.

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## Appendices

### Appendix 1 - Internet Survey

## Aggression and Violence in Nursing

(Internet survey converted to word format to clarify content in drop down boxes)

You are invited to participate in a research project being conducted by Andrea Craig, a Masterate of Nursing student at the Eastern Institute of Technology.

The title of the study is: Registered Nurses attitudes towards, and experiences of, aggression and violence in the acute hospital setting.

The aim of this study is to:

- 1) Establish how many Registered Nurses working in acute hospital settings have engaged in aggression management training.
- 2) Explore the effect that aggression management training has on Registered Nurses attitudes towards aggression and violence.
- 3) Examine the effect of factors such as age, gender, ethnicity, country of initial nursing qualification, years of experience nursing and post-graduate qualifications on Registered Nurses attitudes towards aggression and violence.
- 4) Determine the incidence of Registered Nurse exposure to aggression and violence.

This survey is anonymous. No one, including the researcher, will be able to associate your responses with your identity. Please do not indicate in your responses your name, institution or geographic region. Your participation is voluntary and you may choose to stop responding at any time during the survey.

This survey asks questions about your personal experiences of aggression and violence whilst nursing. For some participants this may trigger distressing emotional or psychological responses. Should this occur than please seek support through your workplace Employee Assistance Program. Alternatively, or if you are experiencing family/domestic violence, you could contact:

Lifeline NZ - 0800 543 354

Woman's Refuge - 0800 733 843

Family Violence Information Line - 0800 456 450

Clicking the 'Submit' button at the end of survey indicates your voluntary agreement to participate in this research project.

Ethical approval has been granted by the EIT Research Ethics and Approvals Committee. (Approval Number 16/15)

Questions regarding this study can be directed to Andrea Craig at  
or Professor Bob Marshall at [bmarshall@eit.ac.nz](mailto:bmarshall@eit.ac.nz)

This survey will close on: 31st November 2015

The results will be published as part of a Masterate Thesis and will be presented to Nursing Journals for consideration of publication.

## Participant Eligibility

**This research project is looking at aggression and violence within the acute hospital setting. If you work in an outpatient, community or psychiatric setting please respond 'no' to the question below.**

***1. Do you work as a Registered Nurse in an acute hospital setting?***

Yes

No

## Training

**We'd like to know about any nursing training you've participated in with respect to managing aggressive and/or violent behaviours.**

***2. Have you participated in aggression management training?***

Yes

No

***3. Was the training voluntary or mandatory?***

Voluntary

Mandatory

***4. How long ago did you participate in initial training?***

< 1 year

1 - <2 years

2 - <3 years

3 - <5 years

>5 years

Unsure

**5. How recently have you participated in refresher training?**

- Never
- <1 year
- 1- <2 years
- 2 - <3 years
- 3 - <5 years
- >5 years

**6. Did the training meet your needs?**

- Yes
- No

**Experiences of Aggression and Violence**

**We want to know what your experiences of aggression and violence have been whilst working as a Registered Nurse in New Zealand. Please report all incidences - including those that were unconscious (not deliberate), as a result of dementia, delirium, neurological conditions etc.**

**7. What has been your experience of violence whilst working as a Registered Nurse in New Zealand? (options presented in a drop down box in the internet version)**

	Number in past year		Number in NZ career	
<b>Physical assault resulting in serious injury</b>	0	<input type="checkbox"/>	0	<input type="checkbox"/>
	1	<input type="checkbox"/>	1	<input type="checkbox"/>
	2	<input type="checkbox"/>	2	<input type="checkbox"/>
	3	<input type="checkbox"/>	3	<input type="checkbox"/>
	4	<input type="checkbox"/>	4	<input type="checkbox"/>
	5-10	<input type="checkbox"/>	5-10	<input type="checkbox"/>
	11-20	<input type="checkbox"/>	11-20	<input type="checkbox"/>
	>20	<input type="checkbox"/>	>20	<input type="checkbox"/>

<b>Physical assault resulting in minor injury</b>	0	<input type="checkbox"/>	0	<input type="checkbox"/>
	1	<input type="checkbox"/>	1	<input type="checkbox"/>
	2	<input type="checkbox"/>	2	<input type="checkbox"/>
	3	<input type="checkbox"/>	3	<input type="checkbox"/>
	4	<input type="checkbox"/>	4	<input type="checkbox"/>
	5-10	<input type="checkbox"/>	5-10	<input type="checkbox"/>
	11-20	<input type="checkbox"/>	11-20	<input type="checkbox"/>
	>20	<input type="checkbox"/>	>20	<input type="checkbox"/>

	<b>Number in past year</b>		<b>Number in NZ career</b>	
<b>Attempted physical assault, no injury</b>	0	<input type="checkbox"/>	0	<input type="checkbox"/>
	1	<input type="checkbox"/>	1	<input type="checkbox"/>
	2	<input type="checkbox"/>	2	<input type="checkbox"/>
	3	<input type="checkbox"/>	3	<input type="checkbox"/>
	4	<input type="checkbox"/>	4	<input type="checkbox"/>
	5-10	<input type="checkbox"/>	5-10	<input type="checkbox"/>
	11-20	<input type="checkbox"/>	11-20	<input type="checkbox"/>
	>20	<input type="checkbox"/>	>20	<input type="checkbox"/>

<b>Sexual assault</b>	0	<input type="checkbox"/>	0	<input type="checkbox"/>
	1	<input type="checkbox"/>	1	<input type="checkbox"/>
	2	<input type="checkbox"/>	2	<input type="checkbox"/>
	3	<input type="checkbox"/>	3	<input type="checkbox"/>
	4	<input type="checkbox"/>	4	<input type="checkbox"/>
	5-10	<input type="checkbox"/>	5-10	<input type="checkbox"/>
	11-20	<input type="checkbox"/>	11-20	<input type="checkbox"/>
	>20	<input type="checkbox"/>	>20	<input type="checkbox"/>

**8. What has been your experience of aggression whilst working as a Registered Nurse in New Zealand?(numerical options presented in a drop down box in the internet version)**

	<b>Number in past year</b>		<b>Number in NZ career</b>	
<b>Verbal Abuse</b>	Daily	<input type="checkbox"/>	Daily	<input type="checkbox"/>
	Biweekly	<input type="checkbox"/>	Biweekly	<input type="checkbox"/>
	Fortnightly	<input type="checkbox"/>	Fortnightly	<input type="checkbox"/>
	Monthly	<input type="checkbox"/>	Monthly	<input type="checkbox"/>
	3 Monthly	<input type="checkbox"/>	3 Monthly	<input type="checkbox"/>
	6 Monthly	<input type="checkbox"/>	6 Monthly	<input type="checkbox"/>
	9 Monthly	<input type="checkbox"/>	9 Monthly	<input type="checkbox"/>
	Yearly	<input type="checkbox"/>	Yearly	<input type="checkbox"/>
	Every Couple of Years	<input type="checkbox"/>	Every Couple of Years	<input type="checkbox"/>
	Never	<input type="checkbox"/>	Never	<input type="checkbox"/>
 <b>Threats</b>				
	Daily	<input type="checkbox"/>	Daily	<input type="checkbox"/>
	Biweekly	<input type="checkbox"/>	Biweekly	<input type="checkbox"/>
	Fortnightly	<input type="checkbox"/>	Fortnightly	<input type="checkbox"/>
	Monthly	<input type="checkbox"/>	Monthly	<input type="checkbox"/>
	3 Monthly	<input type="checkbox"/>	3 Monthly	<input type="checkbox"/>
	6 Monthly	<input type="checkbox"/>	6 Monthly	<input type="checkbox"/>
	9 Monthly	<input type="checkbox"/>	9 Monthly	<input type="checkbox"/>
	Yearly	<input type="checkbox"/>	Yearly	<input type="checkbox"/>
	Every Couple of Years	<input type="checkbox"/>	Every Couple of Years	<input type="checkbox"/>
	Never	<input type="checkbox"/>	Never	<input type="checkbox"/>

**Intimidation**

Daily	<input type="checkbox"/>	Daily	<input type="checkbox"/>
Biweekly	<input type="checkbox"/>	Biweekly	<input type="checkbox"/>
Fortnightly	<input type="checkbox"/>	Fortnightly	<input type="checkbox"/>
Monthly	<input type="checkbox"/>	Monthly	<input type="checkbox"/>
3 Monthly	<input type="checkbox"/>	3 Monthly	<input type="checkbox"/>
6 Monthly	<input type="checkbox"/>	6 Monthly	<input type="checkbox"/>
9 Monthly	<input type="checkbox"/>	9 Monthly	<input type="checkbox"/>
Yearly	<input type="checkbox"/>	Yearly	<input type="checkbox"/>
Every Couple of Years	<input type="checkbox"/>	Every Couple of Years	<input type="checkbox"/>
Never	<input type="checkbox"/>	Never	<input type="checkbox"/>

**Obstructive Behaviour**

Daily	<input type="checkbox"/>	Daily	<input type="checkbox"/>
Biweekly	<input type="checkbox"/>	Biweekly	<input type="checkbox"/>
Fortnightly	<input type="checkbox"/>	Fortnightly	<input type="checkbox"/>
Monthly	<input type="checkbox"/>	Monthly	<input type="checkbox"/>
3 Monthly	<input type="checkbox"/>	3 Monthly	<input type="checkbox"/>
6 Monthly	<input type="checkbox"/>	6 Monthly	<input type="checkbox"/>
9 Monthly	<input type="checkbox"/>	9 Monthly	<input type="checkbox"/>
Yearly	<input type="checkbox"/>	Yearly	<input type="checkbox"/>
Every Couple of Years	<input type="checkbox"/>	Every Couple of Years	<input type="checkbox"/>
Never	<input type="checkbox"/>	Never	<input type="checkbox"/>

**Sexual Innuendo**

Daily	<input type="checkbox"/>	Daily	<input type="checkbox"/>
Biweekly	<input type="checkbox"/>	Biweekly	<input type="checkbox"/>
Fortnightly	<input type="checkbox"/>	Fortnightly	<input type="checkbox"/>
Monthly	<input type="checkbox"/>	Monthly	<input type="checkbox"/>
3 Monthly	<input type="checkbox"/>	3 Monthly	<input type="checkbox"/>
6 Monthly	<input type="checkbox"/>	6 Monthly	<input type="checkbox"/>
9 Monthly	<input type="checkbox"/>	9 Monthly	<input type="checkbox"/>
Yearly	<input type="checkbox"/>	Yearly	<input type="checkbox"/>
Every Couple of Years	<input type="checkbox"/>	Every Couple of Year	<input type="checkbox"/>
Never	<input type="checkbox"/>	Never	<input type="checkbox"/>

**Other** (please specify - with number of event in past year and in New Zealand career)

***9. Is there anything that you would like to tell us about your experience of aggression and/or violence whilst working as a Registered Nurse in New Zealand?***

## Collins' Attitudes Towards Aggressive Behaviours Questionnaire

This questionnaire is from Collins' (1994) research into nurses attitudes towards aggressive behaviours. Please indicate how you feel about the following statements - strongly agree, agree, uncertain, disagree or strongly disagree.

Collins, J. (1994). Nurses' attitudes towards aggressive behaviour, following attendance at 'The prevention and management of aggressive behaviour programme'. *Journal of Advanced Nursing*, 20(1),117-131. doi.10.1046/j.1365-2648.1994.20010117.x

### 10. Collins Attitudes Towards Aggressive Behaviour Questionnaire

	<b>Strongly Agree</b>	<b>Agree</b>	<b>Uncertain</b>	<b>Disagree</b>	<b>Strongly Disagree</b>
It is impossible to know when patients will become aggressive.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Patients strike out because they're afraid.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Patients become violent because they feel the only way to defend themselves is to attack first.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
When a patient becomes increasingly aggressive I get so nervous I can hardly think straight.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Staff members working with mentally ill/drug/alcohol affected people can expect to be physically assaulted at some time during their career.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	<b>Strongly Agree</b>	<b>Agree</b>	<b>Uncertain</b>	<b>Disagree</b>	<b>Strongly Disagree</b>
Doing the wrong thing will make a bad situation worse.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
There is no explaining why patients become violent.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Patients threaten staff to get their own way.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Someone who is good at recognizing the signs can tell when a patient is becoming agitated.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I feel confident in my own ability to manage a patient's behaviour as it becomes more aggressive.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Staff should be educated in the prevention and management of aggressive behaviour as part of their in-service education.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Mentally ill/drug/alcohol affected patients are responsible for their own behaviour.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## Demographics

Now we need a little information about you and your nursing background.

### 11. What is your gender?

- Female  
 Male  
 Gender Diverse

### 12. How old are you? (numerical options presented in a drop down box in the internet version)

- 20-25yrs  26-30yrs  31-35yrs  36-40yrs  41-45yrs  46-50yrs  51-55yrs   
56-60yrs  61-65yrs  65yrs+

### 13. How many years have you been working as a Registered Nurse?

- 0-5yrs  6-10yrs  11-15yrs  16-20yrs  21-25yrs  26-30yrs  31-35yrs  
 36-40yrs  41yrs+

### 14. What is your current area of practice?

### 15. What is your ethnicity?

- NZ European (Pakeha)  Māori  Pasifika  Indian  Filipino  
 British Other (please specify)

### 16. In which country did you initially register as a Nurse?

### 17. What is your highest nursing qualification?

- RN  BN  PGCert  PGDip  Masters  PhD

## Thank You

**Thank you for completing this survey. Your time is much appreciated.**

You may have been brought to this page if you do not work in an acute hospital setting. We are specifically surveying this group and if you don't meet the eligibility criteria you will have been automatically disqualified. Thank you for being willing to participate. Please click the submit button to exit the survey.

Clicking the 'submit' button indicates your consent to participate in this research project.

Any questions - contact Andrea Craig at [acraig@eit.ac.nz](mailto:acraig@eit.ac.nz) or Professor Bob Marshall at [bmarshall@eit.ac.nz](mailto:bmarshall@eit.ac.nz)

***18. Click the submit button to confirm your consent to participate in this research project.***

Submit

## Appendix 2 - Locality Approval

### Health Services



14 September 2015

Andrea Craig

**Institutional Approval**

Dear Andrea

**RE: Hawke's Bay District Health Board Research Application - Reference 15/09/211**

Thank you for your application to conduct research within the Hawke's Bay District Health Board. The Research Office has had the opportunity to review your study and has given approval for your research project to be conducted within HBDHB.

This Institutional Approval is dependant on the Research Office having up-to-date information and documentation relating to your research and being kept informed of any changes to your study.

It is your responsibility to ensure you have kept Ethical Committees (as required) and the Research Office up to date and have the appropriate approvals. HBDHB approval may be withdrawn for your study if you do not keep the Research Office informed of the following:

- Any amendment to study documentation
- Study completion, suspension or cancellation

#### **Conclusion of your Research**

At the conclusion of your research you will be required to provide a written report of your research findings to the HBDHB Research Office.

Please find enclosed a signed copy of your application. Should you have any queries during your research, please do not hesitate to contact me during normal working hours.

Regards

Sally Houlston RN, BN, MN  
Nurse Consultant  
On behalf of the  
HBDHB Research Office

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#### DEPARTMENT OF NURSING

Health Services, Hawke's Bay District Health Board

Private Bag 9014, Hastings, New Zealand

Telephone: 06 878 8109 Extn: 4505 Fax: 06 878 1342 Email: [research@hbdhb.govt.nz](mailto:research@hbdhb.govt.nz)

## Appendix 3 - EIT Research and Ethics Committee Approval



Reference Number 16/15

3 August 2015

Andrea Craig  
Masterate Student  
C/- School of Nursing  
EIT

Dear Andrea

I am pleased to inform you that your research project "*Registered Nurses attitudes towards, and experiences of, aggression and violence in the acute hospital setting*" was received and approved by the Research and Ethics Committee at their meeting held on 31 July 2015.

You are commended for preparing a clear proposal, with appropriate survey questions.

You are reminded that should the proposal change in any significant way, then you must inform the Committee. Please quote the above reference number on all correspondence to the Committee.

The Committee wishes you well for the project.

Yours sincerely

**Jeanette Fifield**  
Secretary – Research Ethics & Approvals Committee

**Eastern Institute of Technology**

**Hawke's Bay Campus** 501 Gloucester Street, Taradale, Napier, New Zealand. P 06 974 8000, F 06 974 8910 E info@eit.ac.nz  
Postal Private Bag 1201, Hawke's Bay Mail Centre, Napier, 4142, New Zealand

**Tairāwhiti Campus** 290 Palmerston Road, Gisborne, 4010, New Zealand. P 06 869 0810, F 06 869 0825 E tairawhiti@eit.ac.nz  
Postal PO Box 640, Gisborne, 4040, New Zealand

**Regional Learning Centres:** Central Hawke's Bay, Hastings, Maraenui, Ruatoria, Tokomaru Bay, Wairoa  
www.eit.ac.nz

## Appendix 4 - EIT Research and Ethics Committee Approval of Survey Change



Reference Number 16/15

21 September 2015

Andrea Craig  
Masterate Nursing Student  
C/- School of Nursing  
EIT

Dear Andrea

Thank you for your notification of change to your proposal "*Registered Nurses attitudes towards, and experiences of, aggression and violence in the acute hospital setting*". Your additional question to the survey has been endorsed. The Reviewer's noted that the added question enhances the survey and will allow you to obtain richer data.

The Committee wishes you well for the project.

Yours sincerely

Jeanette Fifield  
Secretary – Research Ethics & Approvals Committee

cc: Bob Marshall