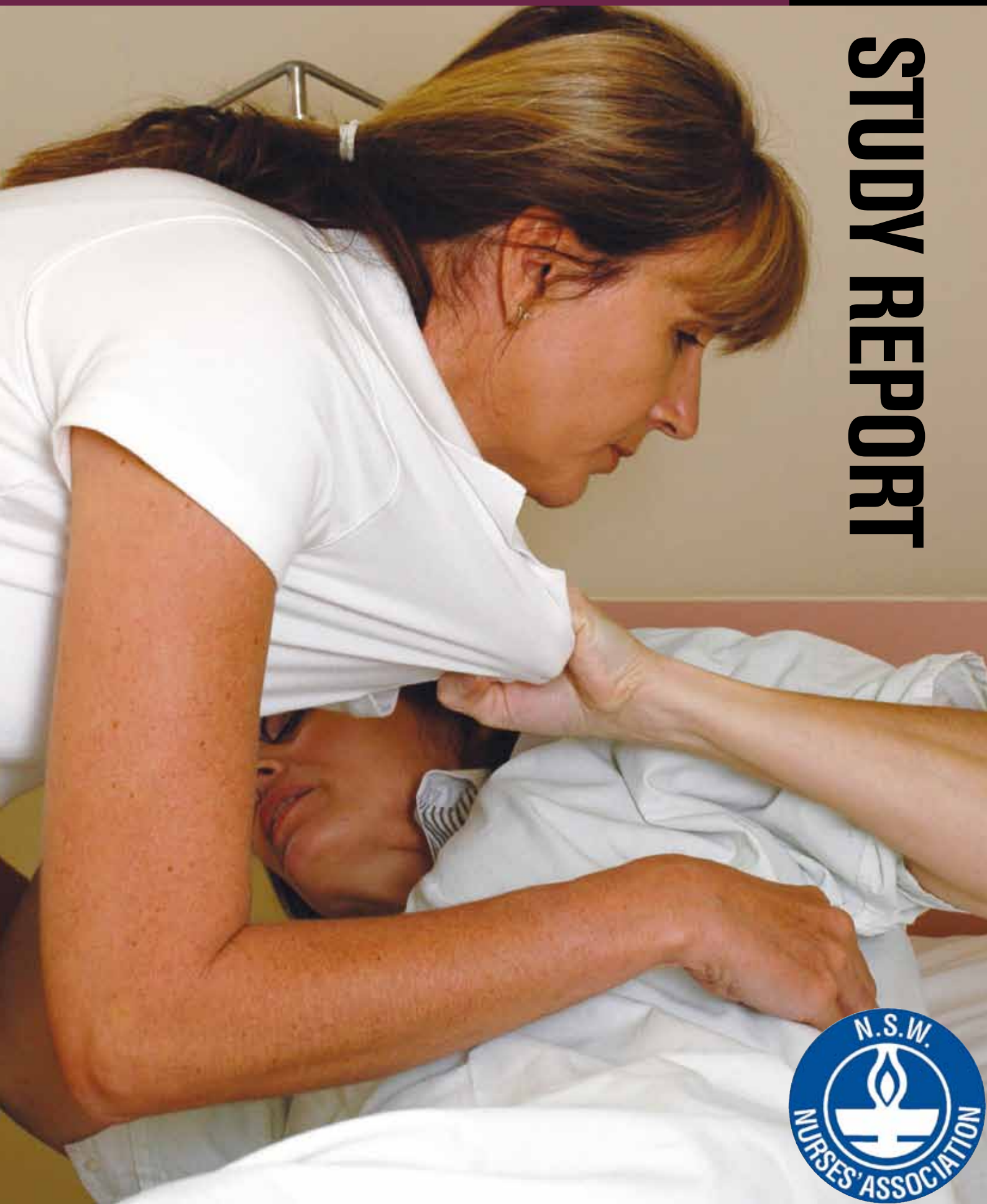


Resistance to Care, Workplace Injury and Effects on the Nursing Workforce in NSW



THE UNIVERSITY OF
NEWCASTLE
AUSTRALIA

STUDY REPORT



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STUDY REPORT

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Executive Summary

Resistance to care behaviour can range from an expression of minor irritation at one extreme, to non-compliance and ultimately to aggression and violence at the other extreme. “This resistance...is caused by the patient’s belief (often delusional) that the care does not have to be provided or just not understanding the motivation and actions of the caregiver. Therefore, the patient defends himself or herself against the caregiver and, if the caregiver persists in efforts to provide unwanted care, the patient may become combative or strike out”¹. Non-compliance or resistiveness has been reported to precede “aggressive behaviour in 32% of instances (Bridges-Parlet et al, 1994 cited in Mahoney et al 1999) ², suggesting a continuum of behaviours that needs investigation”. Consequently, there is a risk of injury to health care workers who are dealing with patients who are resistant to care.

Most studies about resistance to care have been conducted on patient populations with dementia (including Alzheimers). Segatore and Adams ³ report that there are a range of possible aetiologies of agitation in dementia (including new resistance to care): acute or exacerbated medical or surgical illness (eg dehydration, infection, head injury) and overlying delirium, pain, abstinence syndrome/acute withdrawal (BZD, caffeine, ethanol, nicotine), drug interactions (adverse, idiosyncratic or side effect), environmental precipitants, psychosocial precipitants, neuropsychiatric syndrome and idiopathic. This suggests that resistance to care behaviours may not be confined to patients suffering dementia in aged care facilities and that nurses may be exposed to resistance to care episodes and the associated risks in a variety of clinical settings. This study extended the context and focus to other clinical environments and diagnoses where resistance to care (RTC) episodes may also occur, and is the first study that focuses specifically on the effect of RTC episodes on nurses.

This cross sectional study of NSW nurses utilising a postal questionnaire has included participants from five specialty areas of practice: emergency department, mental health (including drug and alcohol), aged care and medical and surgical nursing. Approximately 1,000 nurses from each specialty area of practice were invited to participate in the study and this resulted in a response rate of 23.3%. The response rate to the survey was relatively low and consequently the results may not be representative of the nursing population sampled or generalisable to other populations of nurses. The low response rate had the potential to affect the achievement of the study objectives; however, there was sufficient power to detect significant differences in nurse reported incidence of RTC between clinical areas of interest.

The highest proportions of responses were received from nurses working in mental health, aged care and emergency departments.

The data in this report demonstrate the achievement of the proposed aims and objectives of this study including:

1. Nurse reported incidence of one or more episodes of resistance to care in the last month in a range of health care settings.
2. Nurse reported incidence of one or more episodes of resistance to care resulting in an injury in the last month in a range of health care settings.
3. Nurse perceptions of a range of factors associated with resistance to care, including: impact on nurses working life (types of injury and other outcomes), risk prevention measures and risk management strategies adopted by their employers.
4. Identified factors associated with RTC episodes including: high risk clinical environments, nursing activities, nurse demographics and types of RTC behaviours.
5. Recommendations for employers about resistance to care and safety in the workplace for nurses.

The key results of this study include:

1. Overall 885 of 1132 study participants (80%) reported being involved in an episode of RTC during the previous month; and that they occur between 2 and 4 times per week. A significantly higher frequency of these episodes was reported in emergency departments, mental health and aged care.
2. Where an episode of RTC occurred, 18% resulted in a physical injury to the nurse. The frequency and severity of injuries associated with RTC is less than those reported for patient initiated violence or aggression. *(NB. Aggressiveness and resistiveness are considered to be two distinct behavioural constructs. The intentions that underlie patient resistance differ from those that underlie aggression; the intention of aggression is offensive (intent to cause harm) whereas that of resistance is defensive ⁴).*
3. Non-physical outcomes associated with being involved in an episode of RTC, and impacting on nurses' professional roles include: considering leaving nursing, fear and anxiety, powerlessness and helplessness, burnout, depression, low mood/sadness, reduced morale and reduced empathy which may affect the quality of care provided to patients.

4. Nurses also reported a range of problems which affected their personal lives following involvement in an episode of RTC.
5. More than two thirds of these episodes were viewed by participants as not preventable and half were viewed as aggressive or violent.
6. RTC behaviours are similar to those reported in studies of patient initiated violence.
7. There were some frequently identified nursing activities associated with RTC episodes: assisting patients with activities of daily living, moving patients, assisting with procedures and assisting mental health patients.
8. RTC is a significant clinical challenge in the workplace for nurses, and management support following these episodes is a critical factor that can minimise the effect on nurses working lives.
9. RTC episodes occur less frequently in medical and surgical wards and primary health care.
10. Reporting of RTC episodes occurs significantly more often in mental health and aged care areas of practice and organisational change occurs more frequently in aged care.
11. The most effective action for dealing with the consequences of RTC episodes was reported to be talking with other staff.
12. Most participants considered that their (unit) managers/team leaders were approachable and supportive in the event of a RTC injury.
13. Participants working in aged care and mental health reported more management responses to RTC incidents than nurses in other areas of practice, and prevention strategies were reported more often in mental health.
14. Distinguishing between RTC and aggressive episodes means nurses can manage them effectively by providing an appropriate therapeutic response.

Recommendations

In the health care sector resistance to care is an important occupational health and safety problem and a significant clinical challenge that occurs most frequently in aged care, mental health and emergency departments. It has not been previously reported in mental health and ED however, this study indicates that they are also high risk areas for RTC episodes that may occur as frequently as four times per week.

The following recommendations may assist employers to respond to this problem and provide improved safety in the workplace for nurses.

1. Health care organisations should revise risk management and risk assessment policies and procedures related to RTC episodes to make them more effective – incorporating the concept of patients’ defensiveness underlying these episodes.
2. Health care organisations should actively promote a culture of safety that is focused on prevention of RTC episodes in the workplace rather than accepting them as not preventable.
3. Health care organisations should consider high risk nursing activities and precipitating/contributing factors that are associated with RTC episodes and develop targeted preventative strategies for RTC episodes.
4. Health care organisation should consider provision of additional preventative strategies such as increased staff, training and security to increase staff safety in high risk clinical areas and in the workplace overall.
5. Health care organisations should consider provision of support to staff in the event of RTC episodes including:
 - a. Improved reporting processes for incidents
 - b. Consistent reporting processes for incidents
 - c. Increased management responses to RTC incidents incorporating investigation, follow-up and institution of organisational changes.
6. Health care employers should recognise the psychological outcomes associated with injuries (and possibly also RTC episodes), that may require additional support. They should actively seek to develop and provide effective strategies to alleviate these outcomes, particularly through increased staff/unit support and debriefing.

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1 Introduction

Resistance to care is a phrase used to describe a patient's response to health care staff at the point of care, where the patient's behaviour demonstrates a degree of unwillingness to be assisted by health care staff. "Resistiveness to care is defined as the repertoire of behaviours with which persons with dementia withstand or oppose the efforts of a caregiver".² Resistance to care has been identified as one of five key areas of problem behaviours (*Care Needs of People with Dementia and Challenging Behaviour Living in Residential Facilities*, Department of Health and Family Services 1997 cited in Cody and Greal 2001).⁵

2 Literature Review

2.1 Background

Resistiveness or resistance to care (RTC) refers to instances where patients resist a range of actions from activities of daily living, to medical care, to participation in rehabilitative therapies⁴. "Resistiveness to care" includes pulling away from staff, tightening limbs, stiffening of the body, deliberately ceasing or refusing to weight bear during care, waving arms and legs and verbally objecting to care using words and/or sounds⁶. Importantly, the injuries caused by resistiveness to caregivers may be both physical and psychological. Dictionary definitions define aggression as "the act or practice of attacking without provocation" and "hostile or destructive tendency or behaviour"⁷. In contrast, resistance is defined as "the act or an instance of resisting; refusal to comply". It is often difficult to distinguish between exhibited patient behaviours or responses that are aggressive or resistive⁴.

There is a lack of consistency in the literature regarding a specific definition of resistiveness or resistance to care. Potts et al.,⁸ define resisting care as any behaviour that prevents or interferes with the caregiver/nurse performing or assisting with activities of daily living for the patient. Herz et al.,⁹ include in their definition of resistiveness to care "angry objections, verbal abuse, deliberate stiffening to thwart care, and various levels of physical rejection, including assault". Angry objections, verbal and physical abuse, hitting, slapping, biting, screaming, fleeing, arguing and agitation during activities of daily living are proposed by Roper et al.,¹⁰ as resistance to care behaviours. These definitions are oriented towards caregiver-initiated activities, however, Cody and Greal⁵ suggest inclusion of resistive behaviours in response to more direct manual handling issues of simply repositioning or re-directing a patient.

While some research reports nurses' perceptions of the patient's actions as "intentional" ¹¹, other studies report that behaviour displayed by patients suffering dementia is acknowledged as a defensive response to intrusion into their personal space ^{12, 13}. Over-activity, aggressive behaviour and psychosis ¹⁴, agitation and resistiveness to care ¹⁵ have been distinguished as distinct behavioural syndromes of dementia, with the prevalence of resistiveness increasing as the ability to understand deteriorates ¹⁵. Resistiveness is commonly reported in the provision of care to the aged and people with dementia, however there is growing recognition of patient resistive behaviours' elicited in relation to post-operative delirium, use of psychotropic drugs, alcohol and illicit drugs ^{3, 16, 17}.

An increasing volume of research has been published over the past twenty years addressing the issue of violence and aggression and resultant injury to nurses. This is of interest not only to highlight occupational health and safety issues, but because it strongly influences the recruitment and retention of nurses ^{18, 19} as well as sick leave and burnout levels ²⁰. Often patient resistive behaviours are perceived to be aggressive and or violent; however there is debatable lack of intention to cause physical harm, instil fear by verbal assault, or to react to unmet expectations, in the cognitively impaired.

It is important to identify the magnitude of the problem of injuries to nurses attributable to patients exhibiting resistance to care behaviours such that appropriate nursing management strategies can be employed to minimise the risk of injury to nurses.

The aim of this section is to review the literature on the phenomenon of resistance to care and to assess the extent to which injury to nurses is attributable to resistance to care behaviours.

2.2 Method

To explore resistiveness or resistance to care by patients and injury to nurses an initial search using Medline was conducted. Search terms included patient, resistance to care, resistiveness, refusal, compliance, patient care, nurse-patient relations. These terms were combined with injury, abuse, aggression, occupational, prevalence, and incidence. The search was limited to articles published in English. Cinahl and Journals @ Ovid databases were also explored using these terms. Relevant articles were selected for assessment and reference lists of retrieved journals manually searched to identify further relevant articles. A Google search was also used to locate government documents or reports relevant to the topic.

2.3 Results

No studies were located that focused specifically on injury to nurses caused by patient resistance or resistiveness to care however several papers focused on identification and management of patient resistive behaviours. Many studies have been published on violence and aggression and injury to nurses in different health care settings highlighting the risk of injury that nursing staff are exposed to, from a number of sources, including those inflicted by patients. The injuries to nurses reported in these papers were often the result of patient behaviours demonstrating resistiveness or resistance to care however, the circumstance in which the injury was sustained, for example, assistance with activities of daily living, was often not reported.

Inconsistencies in the literature exist regarding definitions of violence and aggression used in relation to injury, classification or types of violence or aggressive acts, the time period in which injuries/incidents are measured (past week/month/year), and the measures used to collect data. Inconsistency also exists across the injury literature in relation to the denominator used in prevalence and incidence estimates. For most papers presenting injury data, the types of nursing activities the nurse was engaged in at the time of injury is not reported. Many studies examined overall injury to nurses in the workplace from patients, patients' family, and horizontal abuse from other nursing staff and physicians. This review will present data relating to patient-caused injury to nurses in specific health care settings: General Hospital (including Emergency Department), Aged Care and Mental Health Care settings.

General Nursing Setting

A survey of nurses (n=39,894) across ten European countries ²¹, found that 22% of nurses reported violence from patients or relatives, and in a 1-year follow-up study of nurses in eight of the countries, 24% of nurses reported being confronted by aggressive patients. Violent incidents were more prevalent in the psychiatric, geriatric and emergency departments however assaults and/or injury reports were not linked to the type of care giving activities at the time of injury. High levels of time pressure and physical load were associated with higher risks of violence, and high and medium levels of violence frequency were associated with higher levels of burnout, intent to leave nursing and the intent to change institution. A survey of verbal and physical abuse experienced by nursing staff in eight city hospitals in Turkey ²² reported prevalence of verbal abuse from patients to be 76.9% while that for physical abuse to be 61.5%. While the most common reactions to abusive behaviours were anger, helplessness, humiliation and depression, the results showed that 'did nothing' was the

most reported coping strategy for verbal abuse. Nurses reported physical and verbal abuse had negative effects on their health with approximately 60% reporting decreased work productivity and 50% 'thinking about leaving nursing'.

A Canadian study using one-year injury incidents data which included incidents requiring time-loss from work and /or treatment, found that injury incidence per full time equivalent for the acute nursing setting was 24.3 and that for nursing homes it was 31.6²³. Again, the definition of the injury was not related to nursing activities at the time of injury. The authors reported that the highest injury rates were incurred by care aides in nursing homes, while registered nurses (RN's) highest injury rates occurred in acute care resulting in musculoskeletal injuries, punctures, cuts, burns, and skin irritation. The risk of injury was increased by staff shortages and stress due to organisational change.

Physically violent (13.2/100 persons/year) and non-physically violent (38.8/100 persons/year) injuries were reported by registered nurses in USA (n=4,918)²⁴, where 97% and 67% respectively, were patient-caused. Increased injury prevalence was found for nurses working in nursing homes or long-term care facilities, Intensive Care Unit, Accident & Emergency, psychiatric departments and with geriatric patients. Not all incidents were reported and a consistent reporting procedure did not exist. Commonly reported responses to physical and non-physical violence were frustration, anger, fear/anxiety/stress, and irritability, with higher proportions reported for non-physical violence for each of the responses. Of nurses experiencing non-physical violence, 8.9% had restrictions or modified work with 5.9% 'quitting', compared to 6.4% and 1.1% respectively, for nurses who experienced physical violence. Findorff et al.,²⁵ also found that non-physical violence (40%) was reported less than physical violence (57%) to health care employers.

These results are also supported by a study of registered nurses in Alberta, Canada²⁶. Patients were found to be the main source of violence particularly for physical violence, threats and assaults (from 95% in Emergency Department, 99% in Medical/Surgical departments to 100% in Psychiatry), and the majority of workplace violence was not reported. In an Australian study²⁷, Queensland Nurses Union registered nurses were surveyed about workplace violence across aged care (n=441), public hospital (n=497) and private acute sector (n=498). Patients were found to be the source of workplace violence for nurses in 74% of cases in aged care, 63% in public sector hospitals and 48% in the private sector. Authors reported that inexperienced nurses were more likely to report incidents of violence.

Using the Hospital Assault Survey for Nurses in an acute care hospital in USA ²⁸, types of assaults by patients experienced by nurses at least once in the previous year were reported. Assaults (and prevalence) included those that could be considered resistive behaviours: kicked (55.3%); pinched (58.1%); spat on (52.3%); objects thrown at you (44.7%); cursed at (91.7%). The assaults were most commonly caused by patients with cognitive dysfunction (79%) and patients with substance abuse (60.5%). Nurses were often confused as to what legally constituted assault and abuse, nurses' rights versus patients' rights, and policies and procedures for reporting assault and abuse incidents.

Studies of violence, assaults and injury to nursing staff in emergency departments of general hospitals have also reported high levels of physical and verbal assault. Hospitals with psychiatric wards expose emergency staff to a variety of aetiologies that can often result in violent, aggressive or resistive behaviours ²⁹. In a mail survey of 19 emergency departments in rural, urban and suburban hospitals in Central Florida, USA, researchers found that of the 226 nursing and medical staff surveyed 71.9% had been physically assaulted over the period of his/her career, with 41.5% reporting a physical assault in the previous 12 months ³⁰. In a study of nurses working in four major emergency departments in the city of Izmir, Turkey, found high levels of verbal and physical abuse by patients (over career), and reported that approximately 84% of incidents remain unreported ³¹. The type of care-giving activity during which the injury occurred was not reported in these papers.

Emergency department (ED) staff in Canada were retrospectively surveyed ³² and respondents reported experiences of violence, degree of stress caused by violence, verbal abuse (e.g. yelling) and physical violence (including biting, kicking, punching, slapping, throwing object, raising fists). Whilst potential for recall bias exists, 57% of respondents reported being physically assaulted with 84% reporting witnessing verbal abuse at least once per shift in the previous year; more than 20% recalled more than 20 episodes of physical threats in the previous year. The nursing activities at the time of the injury were not reported. Of the respondents, 48% reported impaired work performance for the rest of the shift or the rest of the week after a violent incident. Of the 163 staff surveyed, 18 no longer worked in ED, with 12 staff reporting leaving due to violence.

Aged Care Settings

It is reported that aggressive behaviour is perhaps the most challenging of the behavioural disturbances associated with dementia ³³. Physically aggressive behaviours are most likely to occur in response to invasion of elderly residents'

personal space, usually when care-giving and in a majority of cases are preceded by verbal aggression or non-compliance¹². Despite argument existing in the literature supporting different behaviour patterns such as aggression and resistiveness, aggression is often reported to describe disruptive patient behaviour exhibited during care-giving tasks.

A comparison of experiences of nursing aides (NAs) in rural nursing homes with and without dementia special care units (SCU) was conducted in a study in Canada.³³ In SCU facilities, NAs reported significantly less frequent exposure to disruptive behaviours, less distress when disruptive behaviours were directed towards them, less exposure to aggressive behaviour during care-giving, lower job demands and lower job strain than NAs in non-SCU facilities. While NAs who worked more time on the SCU reported more assaults they experienced less distress from the disruptive behaviour, lower job strain and lower psychological job demands and greater work autonomy. Having a permanent position, experiencing high job strain and feeling inadequately prepared for dementia care were significantly associated with a higher risk of being assaulted.

In another study in the US, nursing assistants (NA) working in six nursing homes (did not indicate whether SCU's were operating at these sites),³⁴ participating in a violence prevention intervention study reported that 51% (n=70) had received an injury from a resident at their current or previous job, 35% (n=48) had been physically assaulted by residents a couple of times a week, 19% (n=26) had received medical treatment for an injury received from a resident, with 16% (n=22) reporting being physically assaulted by residents every day. In this study the types of care-giving activities being undertaken when assaults occurred were reported: dressing/changing 43% (n=268); turning/transferring 26% (n=162); bathing 19% (n=118); feeding 12% (n=12); toileting 9% (n=56) and other 9% (n=56). The types of assaults reported included hitting or punching, grabbing/pinching/pulling hair, scratching or biting, spitting, throwing/hitting with object. Whilst the intervention was found to significantly increase knowledge of violence prevention skills in the intervention group, it did not have a significant effect on the incidence of assaults. The lack of intervention impact was considered to be attributed in part to workload issues: the number of assigned residents was related to the number of assaults as increases in the number of resident-nurse interactions is likely to result in more chances for assault. Violence-prevention skills included in this intervention incorporated distraction, time-out and validation, activities that are likely to be considered impossible to the NA with a heavy resident allocation.

In a study of Swedish nursing homes, sheltered housing and group dwellings of elderly patients with and without dementia, staff at each facility were asked to complete a survey (n=848) regarding incidents of violence ¹¹. Violent incidents towards staff were referred to as: actions of physical violence by the care-recipient, e.g. pinching, hitting or kicking; psychological violence: e.g. spitting, yelling, humiliation, accusation for having stolen something; verbal aggression and sexual violence: e.g. grabbing, pinching intimate parts, harassment. Eleven percent of staff had reported that they had been exposed to violence with more than 33% reporting subsequent wounds and bruises from the incident. Fifty nine percent of participants reporting an incident stated that the incident of violence had occurred in assistance with daily living (ADL) situations, with 19.6% (n=19) reporting that violence had occurred when transferring resident from chair to bed or vice versa; 12.4% (n=12) described the violent act as unprovoked, while 82% (n=80) perceived the incident to be intentional. The reactions to violence reported by nursing staff included fear, anxiety and helplessness to antipathy against the resident, astonishment and aggression. Management of the violent incident most often involved informal discussion with colleagues (87.6%) with an absence of support by means of management strategies that included prevention of staff working alone, work environment projects, support from administrators, and education on safety and violence-management strategies.

In further analysis of this study population ¹³, 61 of the 149 reported events of violence were selected for detailed investigation with care-providers involved. In most cases it was reported that resistive behaviours were exhibited by the patients during care-giving for ADL's; staff felt there was a mutual misunderstanding and mutual invasion of personal space. However the authors reported an acceptance of violence as staff felt it was a 'natural consequence' for care-giving because the events were seen as unavoidable, impossible to solve and as an element of daily work.

Of nurses working in residential care of the elderly in Sweden (n=506, response rate 78%) ³⁵ 40% (n=201) reported being exposed to violence, with 18% (n=36) reporting violence from residents daily. Of staff reporting an incident of violence, those less than 40 years of age (n=117, 58%) were significantly more exposed ($p<0.001$) than staff over the age of 40 years. Staff involvement in violence was significantly associated with full-time employment and working during the daytime compared to part-time employees and those working through the night; daytime work would reflect a larger time component with residents during ADL. Physical violence (76%) was the most common type compared with 12% psychological violence. Nursing staff reported experiencing powerlessness (56%), unhappiness (51%) and anger (49%) in relation to violence,

shame (11%) and guilt (15%). The incidents were not reported in relation to the types of care-giving activity.

Observations of antecedents and consequences of physically aggressive behaviour were made of twenty men and women in a locked special care unit for Alzheimer's disease and an ordinary skilled unit of two suburban nursing homes ¹². Physically aggressive behaviour directed towards staff occurred in 23 of the 28 episodes recorded, and were usually related to personal care (15 of the 23 episodes). Normally the physically aggressive behaviour was followed by a rapid return to non-aggressive behaviour. The authors' report that the physically aggressive behaviour occurred in response to intrusion into the participant's personal space by staff or other residents and from an observational perspective, was a defensive response rather than an expression of anger.

Mental Health Settings

An integral part of the work of mental health care workers has become the clinical assessment and management of violence. From in-depth interviews conducted with experienced mental health nurses working in a secure mental health environment, it was found that nurses rely heavily on their personal knowledge of their patients to make a risk assessment of a patient ³⁶. An exploratory study of registered nurses' experience of patient aggression in both mental health and general nursing settings Duxbury ³⁷ reported that the main difference identified between the two groups of nurses related to nursing control over situations involving aggressive and violent patients: mental health nurses consistently take control of aggressive situations whilst general nurses tend to rely more heavily on input from others (medical staff, mental health teams) when intervening.

A retrospective study of medical and incident reports of assaults by psychiatric patients older than 65 years from 1990 to 2005 in USA Flannery et al., ³⁸ reported physical assaults (including kicking, punching, slapping, biting, spitting and throwing objects directly at staff), sexual assaults and verbal and non-verbal threats or intimidation committed by 34 male and 20 female elderly patients. Of the 54 assaults committed, 91% were physical. The most common victims of the assaults were the mental health aides (78%) and nursing staff (21%) who sustained primarily soft tissue injuries (50%) or open wounds (19%). The assailants had history of schizophrenia, affective disorders and organic disorders. Whilst the authors did not report assaults in relation to specific activities, they did suggest that elderly patients became assaultive when receiving care.

Of nurses surveyed in England and Sweden, 71% and 59% respectively, responded that they had been exposed to physical or verbal violence³⁹. Whilst verbal abuse was predominant, aggressive behaviour such as scratching, spitting, pinching was experienced by 63% of English nurses and 34% of Swedish nurses. Physical assaults such as slapping, punching, kicking and biting were reported by 43% of English nurses and 33% of Swedish nurses. Again the types of care-giving activities associated with the assaults were not provided; however mood disturbance and mental health disorders quite often produce sudden, unexpected and seemingly illogical reactions towards staff that are not necessarily resistive behaviours.³⁹ Similar results are reported by Merez et al,⁴⁰ Whittington et al⁴¹, Privitera et al.,⁴² and Myers et al.,⁴³ that support a higher risk of assault and injury experienced by nursing staff caring for psychiatric patients. In each of these studies the type of care giving activities at the time of the assault or injury were not provided.

In a study of mental health nurses in the UK, where government policy encouraged an attitude of 'zero tolerance' towards aggression against health care staff⁴¹, it was found that tolerance for aggression was higher among more experienced staff (>15 years experience versus <15 years; $p < 0.01$) and that high tolerance was associated with low emotional exhaustion, low depersonalization and high levels of personal accomplishment. It was concluded that nurses' attitudes to patient aggression were complex and do not necessarily equate with an approach of 'zero tolerance'.

A prospective study of aggressive incidents experienced by nurses in the UK in acute inpatient psychiatric wards defined aggression as verbal, non-verbal or physical behaviour that was threatening to self, property, or physical behaviour that harmed self, others or property⁴⁴. There were 254 incidents reported over the 10-month study period during which staff were involved in 57.1% of incidents. While the most frequent trigger for aggression ($n=264$) in this study was the patient being denied something (28%), incidents of assault also occurred when staff required patients to take medication (12%) and staff members assisted patients with ADLs (4%).

2.4 Discussion

Literature was limited that focused on injury and nurses attributable to resistance to care behaviours. This review did not locate studies specifically conducted to quantify prevalence of injury to nurses caused by patient resistiveness to care. The review identified studies related to resistance to care for which focus was limited to: definition and frequency of resistive behaviours^{1, 2, 5, 8, 15, 45, 46}; furthering the understanding of the phenomenon^{2, 4, 47-49}; identification of predictors of RTC behaviours including cognitive

impairment^{28, 45, 46}; observable behaviours (staring and eye contact, tone and volume of voice, anxiety, mumbling and pacing)⁵⁰ and development of nursing management strategies^{8, 9}. South Australian research⁵ reported that 55% of staff in residential care facilities suffered a work-related injury, and that 62% of residents were considered to be resistive to care.

Aggressive and resistive behaviours are a significant problem in long-term care; however, it is often difficult to distinguish between acts that are motivated by aggression and acts that are motivated by resistance. The omission is important because aggressiveness and resistiveness are considered to be two distinct behavioural constructs⁴. The intentions that underlie patient resistance differ from those that underlie aggression; the intention of aggression is offensive (intent to cause harm) whereas that of resistance is defensive⁴.

Physically aggressive resistive behaviours are most likely to occur in response to invasion of patients' personal space, usually associated with care-giving, and due in part to patients feeling vulnerable and fearful^{2, 8, 12, 13, 15, 46, 51, 52}. Disruptive behaviours experienced by nurses assisting patients with activities of daily living (personal hygiene, toileting, mobilization, changing position, administration of medication and eating), typically labelled as aggressive and or resistive, include hitting, yelling, pinching, grabbing, kicking and throwing things^{4, 8, 10} have been reported in this review. Staff shortages, staff to patient ratios⁵²⁻⁵⁷ and communication issues^{13, 48, 58} may also be contributing factors to injuries caused to nurses by these disruptive behaviours.

Whilst the majority of research on RTC exists in relation to long-term aged care, there is increasing interest in identifying and managing patient resistive behaviours presenting as a result of altered cognitive status in older patients in relation to post-operative delirium^{3, 16, 17}, experience of traumatic event (e.g. fracture) or medical condition^{3, 17}, drug-related delirium associated with use of opioids, benzodiazepines, anticholinergic drugs, non-steroidal anti-inflammatory agents, alcohol and sedative withdrawal⁵⁹.

Inconsistencies and limitations exist in the literature in relation to violence and aggression and injury to nurses: definitions of violence and aggression; methods of data collection including sources of data; time frame of reported incidents; multiple incidents often included in 'experience of event'; and inconsistencies in denominator of prevalence and incident estimates. These inconsistencies limit the comparability of injury estimates across studies. The papers presented in this review have reported injuries to nurses in relation to violent and aggressive behaviours, where patient-

caused injury data could be extracted. Reports of patient behaviours experienced by nurses included in this review resemble those defining patient resistive to care behaviours, however, only rarely were the actual types of care-giving activities at the time of injury provided. Notwithstanding the inconsistencies demonstrated in the literature, it is clear that nursing staff are exposed to a range of patient behaviours that result in their injury.

This review revealed that resistiveness to care is a common clinical problem characterised by a range of exhibited behaviours that are often reported under different labels (e.g. aggressiveness, agitation, combative behaviour, challenging and disruptive behaviours). Regardless of the definitions used, nurses are exposed to patient exhibited resistive behaviours that have the potential to result in both physical and psychological injury to nurses. General injury rates have been reported as ranging from 14 to 32 per 100 full-time employees for one year in all nurses⁶⁰, 39% by Nolan et al.³⁹, as high as 51% in nursing home care givers³⁴ and 55 per 100 person years in mental health⁴³. Psychiatric^{60, 61} and emergency departments⁵⁴ are also high risk settings for patient initiated injury to nurses. High risk diagnoses and associated factors for these behaviours have also been reported for alcohol and drugs^{28, 55, 60, 62-64}, acquired brain injury⁶⁵ and dementia, alzheimers or cognitive impairment^{1, 2, 5, 9, 15, 28, 34, 45, 46, 48, 60, 62, 63}.

A strong consistency of results does however exist in relation to the range of reactions and feelings reported by nursing staff experiencing verbal or physical assault or injury, including but not limited to: helplessness, fear, anxiety, stress, frustration, irritability, anger, antipathy toward patients and long term psychological impact^{22, 24, 52-54, 61, 66}. As a result of these experiences nurses and other members of nursing staff (e.g. nurses' aides) reported leaving their current work situation, considered a change of institution, had restricted or modified their current work situation, and impacts on patient care^{21, 23, 30, 32, 54, 67, 68}. An increasing volume of literature exists in relation to violence and aggression and injury to nursing staff and this serves not only to highlight the occupational health and safety issues faced by nurses, but also the workforce consequences with respect to recruitment and retention of nurses, nurse to patient ratios, as well as sick leave and burnout levels^{18-20, 52, 54}.

Generally, an under-reporting of physical and non-physical assaults or injuries was evident in the literature with the greater under-reporting existing for non-physical incidents^{24-26, 31, 43, 52, 54-56, 63, 69, 70}. Nurses are often confused as to what legally constitutes assault and abuse, nurses' rights versus patients' rights, and policies and procedures for reporting assault and abuse incidents^{11, 28}. This review identified a culture of acceptance of violence as some staff felt it was a 'natural consequence' of care-giving because it was unavoidable and impossible to solve^{13, 57, 61, 62} and may include blaming the victim^{54, 60}. A study of mental health nurses in the UK also reported a high level of tolerance toward patient aggression by more experienced staff that was in turn associated with low emotional exhaustion and high levels of personal accomplishment⁴¹. From these results it can be concluded that nurses' attitudes toward patient aggression are complex and do not always equate with an approach of 'zero tolerance' in the workplace.

Results of mental health nurse injury papers^{36, 41, 58} and that of special care units for dementia care³³ suggest that appropriate training, a workplace philosophy that is geared toward a more holistic patient care strategy, and a supportive workplace team and management, result in lower levels of injury, and greater levels of nurse work-satisfaction and lower levels of work stress.

2.5 Conclusion

Nurses are exposed to patient-exhibited resistive behaviours that have the potential to result in both physical and psychological injuries. However a gap exists in the published peer-reviewed literature of research focusing specifically on the prevalence of injury to nurses as a direct consequence of patient resistance to care. From the published literature on injury to nurses and aggression and violence, it is clear that nurses are increasingly exposed to nurse-patient interactions that often result in their injury. Further research is needed to highlight the phenomenon of patient resistance to care behaviours, the extent to which injury to nurses is attributable to these behaviours, and work models and management strategies to reduce the risk of injury to nurses^{3, 17}.

3 Study Aims and Objectives

3.1 Research Question

What is the nurse reported incidence of resistance to care episodes and resultant injury in a range of health care settings?

3.2 Study Aims

This study used a cross-sectional study design to survey nurse reported incidence of resistance to care episodes of a representative sample of members of the NSW Nurses' Association (NSWNA). The sample was selected to represent nurses from the five major clinical environments of aged care, mental health including drug and alcohol services, emergency care, surgical nursing and medical nursing.

The study aims are:

1. To determine the nurse reported incidence of resistance to care episodes;
2. To determine the resultant injuries in a range of health care settings.

3.3 Study Objectives

To achieve these aims, the objectives of the study are:

1. To determine the proportion of nurses in each clinical environment who report one or more episodes of resistance to care in the last month.
2. To determine the proportion of nurses in each clinical environment who report one or more episodes of resistance to care resulting in an injury to the nurse in the last month.
3. To assess nurses' perceptions of a range of factors associated with resistance to care, including: impact on nurses working life (types of injury and other outcomes), risk prevention measures and risk management strategies adopted by their employers.
4. To evaluate a range of factors associated with resistance to care episodes including identifying: high risk clinical environments, nursing activities, nurse demographics and types of resistance to care behaviours.
5. To develop recommendations for employers about resistance to care and safety in the workplace for nurses.

3.4 Expected Benefits and Outcomes

This study was expected to contribute to policy development and its application in the clinical practice environment about staff safety and RTC. It has also contributed to the research community and published data about RTC in the Nursing workplace.

The potential impact of this study is its contribution to the epidemiological evidence regarding factors and outcomes associated with RTC including:

1. Clinical environments which are perceived to have a higher risk for RTC episodes
2. Nursing activities associated with RTC episodes
3. Types of nurse reported RTC behaviours
4. Types of injuries and other outcomes associated with RTC episodes
5. Nurses' perceptions of RTC and the impact on their work life
6. Effectiveness of current risk management strategies relating to RTC

This evidence will be of particular use to the NSWNA, regulatory authorities and a wider national and international audience. In addition, it is envisaged that this research will benefit the wider community including health care administrators and professional organisations by providing current evidence of various aspects of RTC in NSW.

This study will impact the following groups in specific ways.

1. NSWNA – the study outcomes will assist/inform this organisation to develop evidence based safe work practices across a range of practice environments. NSWNA will also be able to contribute to influence policy development and safety & risk management.
2. Research community – there is a lack of published data on this topic in Australia (1 study conducted in an aged care setting). This study will report a measure of point incidence of RTC in NSW nurses. It will also report nurses' perceptions of risk and risk management practices in their workplaces.
3. Policy and Clinical Practice – this study will provide information about nurses' perceptions and application of policies and recommended safe clinical practices in the public and private sectors.
4. Policy and Clinical Practice – this study has the potential to provide information about staff safety relating to RTC. The study results may provide insight into the circumstances associated with episodes of RTC.

5. Employers – the research will inform health care practice with the aim of reducing injuries, improving efficiency and improving patient care.

4 Advisory panel

An advisory panel was established to assist the investigators with specialist advice when required. The members included:

1. Trish Butrej and Mary McLeod from the NSW Nurses' Association;
2. Catherine D'Este from the University of Newcastle for sampling and statistical consultation.

5 Methods

5.1 Study Design

This study utilised a cross-sectional design to survey a representative sample of the membership of the NSW Nurses' Association, and was conducted by the University of Newcastle. A postal questionnaire was used to establish nurse reported incidence of resistance to care episodes in various clinical environments and resultant workplace injury and effects on the nursing workforce.

5.2 Study Population and Recruitment

The sample was selected to represent nurses from a variety of clinical specialties and working environments. A sample of 5000 nurses was invited to participate in the study: 1000 from each of five clinical environments (aged care, mental health including drug and alcohol services, emergency department (ED), surgical nursing and medical nursing).

Justification of Sample Size

Assuming a 30% consent rate, we anticipate 300 nurse participants per clinical group in the final sample. This will allow estimation of the proportion of nurses who have experienced RTC, and RTC resulting in injury with 95% Confidence Intervals within \pm 5-6%. The study will be able to detect differences between clinical groups in outcomes and perceptions of 12% for dichotomous variables and 0.25 of a standard deviation for continuous variables, with 80% power and 5% significance level.

Selection of Study Sample

To select the study sample the NSW Nurses' Association provided the researchers with an EXCEL spreadsheet with the work sector and award title of their members. Only this data for each member of the NSWNA was provided, thus it was not possible to identify individuals in any way. An identification number was generated for each member equalling the row number of the dataset received from the Association.

Using the available information a random sample of members was selected to represent nurses working in the clinical environments of aged care, mental health including drug and alcohol services, surgical nursing and medical nursing. A different method of selection (see Section 5.3) was used for participants in working ED as they could not be identified from the membership database.

An EXCEL file containing the selected study sample was supplied to the NSW Nurses' Association who subsequently produced address labels for mailing of the study packages.

5.3 Recruitment

When ethics approval was received and potential participants had been selected from the database, the NSW Nurses' Association mailed potential participants a pre-notification postcard as a preliminary/advisory notice to inform them of the study (see Attachments

Attachment 1). Subsequently all potential participants in the study were mailed a study package including: an invitation to participate in the form of an Information Statement (see Attachment 2), a Questionnaire (see Attachment 3) and a pre-addressed reply paid envelope.

Nurses working in ED were recruited as follows: NSWNA representatives located in EDs in NSW hospitals were provided with recruitment materials for ED nurses. These representatives invited nurses to participate in the study and provided membership numbers of interested members to the NSWNA, who were subsequently sent a study package.

Participation was voluntary, and consent was deemed to be given through the completion and return of the questionnaire to the researchers. The returned questionnaire was non-identifiable.

Four weeks after the initial package despatch, a Thank you/Reminder postcard was sent to all potential participants as a reminder to participate (Attachment 4). Data were collected during 2009.

5.4 Study Instrument

Data relating to RTC episodes was collected using a purpose constructed five section questionnaire (Attachment 3).

Section A: Study Eligibility

Section B: General Workplace Information

Section C: Resistance to Care Episodes in Your Workplace

Section D: Factors Associated with Resistance to Care Episodes

Section E: Organisational Risk Prevention and Risk Management of RTC Episodes

The development of the questionnaire form for this study was conducted in three stages.

Stage 1

This stage involved development of questions for the purpose of measuring the proposed objectives of the study. It included reference to relevant NSW Health policy documents and some key literature. The study aims and objectives were the primary reference point for development of the questionnaire. RTC was defined as “the repertoire of behaviours with which persons ... withstand or oppose the efforts of caregivers”. Behaviours can range from an expression of minor irritation/unwillingness at one extreme, to non-compliance and ultimately to aggression and violence at the other extreme ².

Questions were included in the draft questionnaire for the purpose of meeting the aims and objectives of the study as follows: Self reported episodes of resistance to care and estimates of the number of these during the previous month; Nursing activities engaged in when resistance to care episodes occurred; Diagnoses or clinical signs/symptoms of patients who displayed resistance to care behaviour; Types of resistance to care behaviour observed or experienced; Types of injury sustained as a result of resistance to care episodes; Other consequences of resistance to care episodes; Actions taken to deal with the consequences of resistance to care episodes; perceptions of risk prevention and management measures; Precipitating factors to resistance to care episodes. Items included for the purpose of identifying factors associated with RTC episodes described in objective 4 include: years of experience,

hours per week involved in direct patient care, fraction of employment, gender, age, award title and principal clinical area of practice, nursing activities, types of RTC behaviours.

Objective number 1 of the study is to determine the proportion of nurses in each clinical environment who report one or more episodes of resistance to care in the last month. This provides the basis for questions 7a through 7g.

Objective number 2 is to determine the proportion of nurses in each clinical environment who report one or more episodes of resistance to care resulting in an injury to the nurse in the last month, which is asked in question 7d.

Objective number 3 of the study looks at the impact on nurses working life (types of injury and other outcomes). Question 11 asks nurses to describe any injuries sustained as a result of RTC, in terms of location and severity, and type of injury. McKinnon and Cross (2008) developed a table of injuries experienced by nursing staff which we used as the basis for our own table (Question 11b).⁶³

Objective number 4 of the study seeks to identify high risk clinical environments, which is the rationale for question 6a. Studies have identified the Emergency Department, Mental Health and Aged Care, specifically dementia patients, as the three highest risk areas for RTC episodes.^{21, 24, 71} Intensive care and critical care units and Medical have also been identified as high risk areas. In addition, remote areas have been associated with higher risk of violence against nurses which led to the inclusion of question 3c.²⁷

Objective 4 of the study seeks to identify types of RTC behaviours. Mahoney et al² developed a resistiveness to care scale (RTC-DAT) in an effort to treat RTC as a unique and differentiated behavioural problem.⁴⁶ This source and Ryan and Maguire⁷⁰; Bridges-Parlet et al¹² and Farrell et al⁷¹ were used to create a list of RTC behaviours. We sought to differentiate between those RTC behaviours that involved physical contact with staff and those that did not. Farrell et al⁷¹ approached the categorisation in a similar fashion but split it into verbal and physical abuse, as did Bridges-Parlet et al.¹² A total of 38 behaviours were listed in question 10.

Objective 5 seeks to develop recommendations for employers about resistance to care and safety in the workplace for nurses. Thus the final questions in the survey looks at risk prevention and minimisation measures adopted by employers (Questions 19, 20 and 21.)^{46, 60, 72}

This draft provided the ethics committee with substantial information regarding the format and questions included in the survey. It was subsequently approved by the Ethics Committee allowing stage 2 to proceed.

Stage 2

This stage included a search of the literature and identification of previous studies relevant to this study. Each study and associated instruments were analysed and where relevant items were identified, they were either added or modified for use in this study.

Young, inexperienced nurses with minimal qualifications have been identified as being at greater risk of RTC episodes than their more experienced and senior colleagues.^{27, 63} This information will be captured by the questions asked in the general workplace section, specifically questions 2, 5 and 6b.

Males were identified as being twice as likely to be perpetrators of physical abuse as females⁷¹, particularly those over the age of 65.^{24, 27} Questions 7h and 7i are designed to capture information about these patient characteristics.

Activities of Daily Living (ADL's) have been identified in the literature as significant clinical factors that precipitate episodes of RTC² and this information is related to objective 4 of the study. Consequently, they were used to form the core of the list of nursing activities provided for nurses to choose from in question 8. Other categories were included by the researchers. Question 16 is an extension of the concept of ADL's and asked for nurses' perceptions as to which activities they regarded as high risk for RTC episodes. This item may include activities that have not previously been reported.

The literature was used to create a list of diagnoses for patients who displayed RTC episodes (Question 9). Much of the research centres on mental health and aged care, and diagnoses in the literature reflects this focus, for example dementia, Alzheimer's Disease¹; acute psychoses or related mental health problems⁶⁶; substance abuse⁷³; alcohol abuse⁶⁶; traumatic brain injury, sociopathy and chronic mental health disorders⁷³; medication side effects, acute illness or pain⁸; organic brain damage and mental retardation⁷⁴; acute confusion, organic brain syndrome, agitation, delirium, postoperative delirium, depression, hallucinations, dementia and polypharmacy.³ The researchers added the category paediatric emergency to isolate any cases involving children.

Injury resulting from RTC episodes is examined in more detail in Question 11. The Abbreviated Injury Scale (AIS) was used to devise a question about location and

severity of injury in item 11a (Association for the Advancement of Automotive Medicine, 2007). This item will allow the calculation of an Injury severity score (ISS). This scoring system is a well recognised and widely used trauma scoring system and is commonly reported in the literature to be an acceptable scoring system for injury.⁷⁵ The subsequent item (11b) allows nurse to report types of injury sustained, including those resulting in permanent disability (Question 11c).

Question 11d asks nurses to choose from a list of other consequences (psychological and emotional), because even in the absence of injury, some nurses who suffered assaults, reported experiencing moderate to severe reactions for six months to one year; and in fact the consequences of non-physical violence appeared to be more severe than for physical violence.²⁴ Short and long term effects have been identified as physical, personal, emotional and professional.⁶⁶ Our list was drawn from the work of a number of researchers including: symptoms of PTSD such as sleeplessness, nightmares and flashbacks⁵³; anxiety, fear of recurrent assault, family disruption, anxiety, helplessness, irritability, sadness, depression, shock, disbelief that the assault happened and sympathy for the patient who committed the assault.²⁴ Professional effects included difficulty returning to the work setting⁶¹; burnout and desire to leave nursing.⁷⁶

Question 12 asks nurses what measures they found effective in dealing with the consequences of RTC episodes.

The literature indicates that many RTC episodes go unreported as nurses are often reluctant to make official complaints.⁷¹ In fact up to 81% of incidents may go unreported.⁶³ Questions 13a and 13b seek to capture this data by asking when nurses feel RTC incidents should be reported and what factors influence their decision to report. Question 14, 15 and 17 include data items about follow-up and support available after RTC episodes occur.

A number of precipitating factors for RTC episodes have been reported including increased waiting times for patients. This is both in terms of waiting lists for admission to hospital⁷⁷ and patient-perceived long wait times for attention by a nurse, for example for pain relief.⁶⁶ The rationale for Question 18 is to capture this information by asking for nurses' perceptions of precipitating and contributing factors to RTC episodes. Other categories drawn from the literature included environmental factors⁸; staff attitudes⁶³; and situations where patients are deprived of their individuality, dignity, choice or independence.⁷⁸

Stage 3

This stage involved an expert panel of nurse clinicians and academics, which was convened to test and provide advice about the draft questionnaire. This process provided face and content validity of the questionnaire. Subsequently minor changes were made to a number of questions.

A meeting was held between the researchers and the WorkCover Assist Grants Panel on 24th July, 2008 and as a result some minor changes were incorporated into the questionnaire. The revised questionnaire was then circulated to the expert panel members for their comments regarding the ordering of responses in the expected order of frequency. Changes have been made to some questions based on their advice.

5.5 Optical Mark Readable Survey

To facilitate speed and accuracy of data entry an Optical Mark Readable Survey technology was utilised. The ethics approved survey was formatted by an external organisation. In addition a ScanTools Plus program was produced to enable the scanner to read the survey forms.

5.6 Allocation of Study Numbers

Study numbers were not generated prior to the distribution of the survey, rather questionnaires were bar-coded sequentially the printing company. The barcode subsequently became the study number. The allocation of study numbers to surveys was done only for the purpose of data checking (i.e. to check electronic data with paper records for possible data entry error, outliers, etc). This had the additional advantage of making responses completely anonymous.

5.7 Promotion of the Study

Prior to the distribution of the survey, an article appeared in the NSW Nurses' Association publication, "The Lamp". The article announced the study to the membership and flagged that members may be asked to participate. It also included a description of the study and encouraged members who receive an invitation, to participate (see Attachment 5). In addition a postcard was mailed out as a preliminary/advisory notice to potential participants in the study (see Attachment 1)

5.8 Receipt of Surveys

All surveys were entered manually into a book and electronically into an Excel spreadsheet. The total number of surveys received each day was recorded to calculate the response rate. The date of receipt and status of each survey was recorded next to

the relevant study Id number. The codes for status were as follows: 1=Completed, 2=Ineligible, 3=Blank/Not consenting, 4=Email or Phone/Ineligible, 5=Email or Phone/not consenting, 6=Return to sender, 7=Not sent.

5.9 Data Entry

Prior to scanning, surveys were manually checked to ensure the responses were marked sufficiently for the scanner to read and also that the number response boxes were filled in correctly. An OpScan iNSIGHT 4 scanner and ScanTools Plus software program was also used to scan all surveys. Surveys were compiled into groups of 40 for scanning with each group given a unique file name in reference to the date and time of scanning. The responses for the qualitative questions were entered into the dataset.

5.10 Data Checking

To ensure accuracy of data entry, the data from the first 40 surveys were checked manually against the original hardcopies of surveys. Subsequently every tenth survey was checked.

5.11 Ethical consideration

Ethical approval for the study was obtained from the Human Research Ethics Committee of the University of Newcastle prior to the distribution of the study packages.

5.12 Data storage

Data security was maintained by ensuring that study records were held on either password protected computers or in locked filing cabinets in secure offices of the researchers.

5.13 Statistical methods

Sample size, power and precision

The objective of the sampling frame was to select 5 000 nurses, with a minimum of 1000 study participants from each clinical environment. These numbers were based on a sample size calculation assuming that with a response rate of 30% there would be sufficient statistical power to find a difference if a difference truly exists between groups (Type 1 error 5%, Type 2 error 80%).

Data Analysis

Statistical analysis was performed using statistical/data analysis software (STATA V11, Statacorp, College Station, Texas USA) by a qualified statistician. The following data analysis plan was used:

1. The proportion of NSW nurses in each clinical group who reported one or more episodes of RTC in the past month was compared across clinical environments. Simple associations were examined using a Chi-squared Test.
2. The proportion of NSW nurses in each clinical group who reported one or more episodes of RTC in the past month resulting in injury was compared across clinical environments. Simple associations were examined using a Chi-squared Test.
3. Additional analyses were conducted to determine the proportion of nurses in each clinical group who identified factors associated with RTC and these were compared across clinical groups using the chi square test.
4. Logistic regression modelling was used (both univariate and a complete model) to identify predictors of the nurses who are likely to encounter resistance to care episodes in the previous month.
5. Poisson regression modelling was used (both univariate analysis and a complete model) to identify predictors of the number of resistance to care episodes a nurse experienced in the previous month.
6. Logistic regression modelling was used (both univariate and a complete model) to identify predictors of injury occurrence.
7. Logistic regression modelling was used (both univariate and a complete model) to identify nursing activities that are associate with an increased risk of injury due to resistance to care.

6 Results

6.1 Sampling results

The total membership of the NSWNA at the time of sampling was 47,418. The selected sample was 5,044 nurses from the required specialty areas (see Table 1).

Table 1: Composition of study sample selected by specialty area

Specialty area	Sample Count	Sample %
Emergency Department	981	19.4
Mental health & Drug & Alcohol	1000	19.8
Medical/Surgical	2063	40.1
Aged Care	1000	19.8
TOTAL	5044	100.0

The final figures for participation are shown in Table 2. The response rate for this study was 23.3%. The total number of eligible participants with a completed questionnaire was 1132.

Table 2: Final participation figures

Potential Participants	Numbers	Number of Participants
Sample Selected	5044	
Study Packages Sent		5044
Returned to Sender	27	5017
Non respondents	3846	
Responses	1171	1171
Returned, Question 1 = Ineligible	27	
Returned blank, non-consenting	9	
Other	3	
Eligible Participants – returned completed questionnaire		1132

6.2 Characteristics of participants

The characteristics of the participants are reported in Table 3 below. Fifty percent of the participants are from the mental health and aged care clinical practice areas. Most of these data are consistent with known nursing workforce characteristics. However, the proportion of male participants is higher. This is due to 53.1% of the participants working in mental health being male.

Table 3: Characteristics of participants

Variable	Category	Total (N = 1132)*
Employment Sector	Emergency departments	214 (19%)
	Mental health, (including drug and alcohol)	276 (24%)
	Aged care	277 (24%)
	Medical wards	152 (13%)
	Surgical wards	97 (8.6%)
	Primary health care	51 (4.5%)
	Other	65 (5.7%)
Region	Metropolitan/regional area	743 (67%)
	Rural/remote area	359 (33%)
Mode of employment	Full time	585 (52%)
	Part-time	489 (44%)
	Casual	44 (3.9%)
Gender	Male	179 (16%)
	Female	950 (84%)
Nursing role	Enrolled/endorsed enrolled nurses	145 (13%)
	Registered nurses/midwives	713 (64%)
	Clinical nurse specialists/consultants/educators	180 (16%)
	Other	79 (7.1%)
		Mean (S.D.)
	Age	46.8 (10.2)
	Years of experience	21.6 (11.7)
	Average hours per week worked	32.1 (13.0)

* Numbers may not sum to 1132 due to unanswered questions

6.3 Incidence and characteristics of episodes of resistance to care

Eight hundred and eighty five respondents (80%) reported being involved in one or more episodes of RTC in the last month. The distribution of these episodes of RTC was not similar across clinical practice areas (see Table 4). There is a statistically significant difference in the proportions of these events reported by nurses. The highest proportions are reported by nurses working in emergency departments, mental health and aged care. There were 21 participants who did not answer the question.

Table 4: Involvement in RTC episodes (q7_a) by clinical specialty

Response	Emergency (n=209)	Mental health (n=271)	Aged care (n=268)	Medical (n=152)	Surgical (n=96)	Other (n=65)	Primary health care (n=50)	Total (%) (n = 1111)
Yes	180 (86%)	238 (88%)	242 (90%)	113 (74%)	58 (60%)	41 (63%)	13 (26%)	885 (80%)
No	29 (14%)	33 (12%)	26 (10%)	39 (26%)	38 (40%)	24 (37%)	37 (74%)	226 (20%)

Pearson $\chi^2(6) = 159.7$ $p = <0.01$

Table 5 presents a univariate analysis and logistic regression modelling to identify predictors of the nurses who are likely to encounter resistance to care episodes in the previous month. Participants in aged care were significantly at higher odds of being involved in an RTC episode than nurses working in other clinical specialties. ED and mental health are also high risk areas. The lower response rates from surgical and medical wards did not affect the ability to detect statistical significant differences for these clinical environments.

Table 5: Logistic regression modelling on involved in RTC Episode

		Resistance to Care Episode		Univariate Analysis		Fully Adjusted Model	
Question	Response	No (n=226)	Yes (n=885)	Odds Ratio	Pr > Chi-Square	Odds Ratio	Pr > Chi-Square
Nurse Classification	Enrolled nurse	27 (19%)	115 (81%)	1.1 (0.7, 1.7)	0.8	0.9 (0.5, 1.6)	0.7
	Other	16 (31%)	35 (69%)	0.6 (0.3, 1.0)	0.05	0.6 (0.26, 1.3)	0.2
	Registered nurse	182 (20%)	728 (80%)	1	.	1	.
Clinical Specialty	Emergency nursing	29 (14%)	180 (86%)	0.7 (0.4, 1.2)	0.2	0.5 (0.28, 1.0)	0.07
	Medical wards	39 (26%)	113 (74%)	0.3 (0.2, 0.5)	<.01	0.2 (0.1, 0.4)	<.01
	Mental health/ drug and alcohol	33 (12%)	238 (88%)	0.8 (0.5, 1.3)	0.4	0.6 (0.33, 1.18)	0.1
	Other	24 (37%)	41 (63%)	0.2 (0.1, 0.4)	<.01	0.2 (0.09, 0.4)	<.01
	Primary health care	37 (74%)	13 (26%)	0.04 (0.02, 0.08)	<.01	0.02 (0.01, 0.05)	<.01
	Surgical wards	38 (40%)	58 (60%)	0.2 (0.09, 0.3)	<.01	0.1 (0.05, 0.2)	<.01
	Aged care	26 (9.7%)	242 (90%)	1	.	1	.
Work fraction	Casual	12 (27%)	32 (73%)	0.6 (0.3, 1.3)	0.2	0.8 (0.35, 2)	0.7
	Part-time	100 (21%)	377 (79%)	0.9 (0.7, 1.2)	0.5	1.2 (0.79, 1.8)	0.4
	Full Time	111 (19%)	465 (81%)	1	.	1	.
Geographic region	Rural/remote	80 (23%)	274 (77%)	0.8 (0.6, 1.1)	0.2	0.7 (0.46, 0.99)	0.04
	Metropolitan/regional	140 (19%)	588 (81%)	1	.	1	.
Gender	Female	205 (22%)	727 (78%)	0.5 (0.3, 0.7)	<.01	0.5 (0.28, 1.02)	0.06
	Male	20 (11%)	156 (89%)	1	.	1	.
Years of Experience	Mean (Std)	23.2 (11.28)	22.1 (12.07)	0.99 (0.98, 1.0)	0.3	1 (0.97, 1.02)	0.7
Average hours per week	Mean (Std)	28.2 (14.57)	33.3 (11.93)	1.04 (1.0, 1.1)	<.01	1.04 (1.03, 1.06)	<.01
Age	Mean (Std)	48.1 (10.24)	47.2 (10.23)	0.99 (0.98, 1.0)	0.2	0.98 (0.95, 1)	0.09

The following tables report data for the 885 respondents who were involved in RTC episodes.

Of the 885 respondents who reported being involved in one or more episodes of RTC in the last month the mean number is 8.5 episodes, however there is considerable variation within the clinical specialities (see Table 6). Mental health and aged care nurses reported experiencing a mean of 17 episodes per month.

Table 6: Number of RTC episodes (q7_b) by clinical specialty

	Emergency (n=180)	Mental health (n=238)	Aged care (n=242)	Medical (n=113)	Surgical (n=58)	Other (n=41)	Primary health care (n=13)	Population Statistic (N=885)
mean (sd)	9.4 (11.1)	17.3 (20.8)	17.8 (22.7)	6.6 (10.1)	5.3 (6.7)	6.6 (8.4)	4.6 (5.0)	8.5 (12.2)
median (min, max)	5 (1, 90)	10 (0, 99)	10 (1, 99)	3 (0, 70)	3 (0, 35)	4 (0, 40)	3 (1, 20)	

Table 7 presents a univariate analysis and poisson regression modelling to identify predictors of the number of resistance to care episodes a nurse experienced in the previous month. Aged care is the highest risk area followed by mental health. Casual staff are significantly less likely to be involved in an RTC episode.

Table 7: Poisson regression modelling on number of episodes of RTC

		Univariate Analysis		Fully Adjusted Model	
Question	Response	Relative Risk (95%CI)	P-Value	Relative Risk (95%CI)	P-Value
Nurse Classification	Enrolled nurse	1.1 (0.9, 1.3)	0.6	0.9 (0.7, 1.1)	0.1
	Other	0.8 (0.5, 1.2)	0.2	0.9 (0.6, 1.4)	0.7
	Registered Nurse	1		1	
Clinical Specialty	Emergency nursing	0.5 (0.4, 0.7)	<.01	0.5 (0.4, 0.6)	<0.01
	Medical wards	0.4 (0.3, 0.5)	<.01	0.3 (0.2, 0.4)	<.0001
	Mental health/ drug and alcohol	0.9 (0.8, 1.1)	0.5	0.8 (0.7, 1)	0.05
	Other	0.4 (0.3, 0.6)	<.0001	0.3 (0.2, 0.5)	<.0001
	Primary health care	0.3 (0.1, 0.7)	<0.01	0.2 (0.1, 0.7)	<0.01
	Surgical wards	0.3 (0.2, 0.5)	<0.01	0.2 (0.2, 0.4)	<0.01
Work fraction	Aged care	1		1	
	Casual	0.6 (0.4, 1)	0.05	0.5 (0.3, 0.8)	<0.01
	Part-time	1 (0.8, 1.1)	0.8	0.9 (0.8, 1.1)	0.5
Geographic region	Full Time	1		1	
	Rural/remote	0.9 (0.7, 1.0)	0.1	0.9 (0.8, 1.1)	0.44
Gender	Metropolitan/regional	1		1	
	Female	1.0 (0.9, 1.2)	0.8	1.2 (1, 1.5)	0.14
Years of Experience	Male	1		1	
		1 (1, 1)	0.03	1 (1, 1)	0.34
Average hours per week		1 (1, 1)	0.03	1 (, 1)	0.014
Age		1 (1, 1)	0.01	1 (1, 1.)	0.4

Note: To account for over dispersion a dispersion parameter was used as calculated by the deviance divided by its degrees of freedom.

Study participants were asked how many of the RTC episodes they experienced were preventable. Overall of the mean 8.5 episodes experienced, nurses reported that 2.5 were preventable (see Table 8). It is interesting to note the difference between those episodes experienced and those considered preventable. Nurses overall are suggesting that the majority of episodes are not preventable.

Table 8: How many were preventable? (q7_c) by clinical specialty

	Emergency (n=180)	Mental health (n=238)	Aged care (n=242)	Medical (n=113)	Surgical (n=58)	Other (n=41)	Primary health care (n=13)	Population Statistic (N=885)
mean (std)	3.2 (5.1)	4.7 (9.5)	4.9 (10.3)	1.9 (4.5)	1.9 (4.4)	2.4 (3.9)	1.9 (2.4)	2.5 (5.52)
median (min, max)	2 (0, 40)	2 (0, 99)	1 (0, 80)	0 (0, 40)	0 (0, 25)	1 (0, 16)	1 (0, 8)	

Study participants were asked how many of the RTC episodes they experienced were aggressive or violent. Overall of the mean 8.5 episodes experienced, nurses reported that 4.2 were perceived as aggressive or violent (see Table 9). It is interesting to note the difference between those episodes experienced and the proportion perceived as aggressive or violent. Nurses overall are suggesting that 50% of episodes are aggressive or violent.

Table 9: How many were aggressive or violent? (q7_d) by clinical specialty

	Emergency (n=180)	Mental health (n=238)	Aged care (n=242)	Medical (n=113)	Surgical (n=58)	Other (n=41)	Primary health care (n=13)	Population Statistic (N=885)
mean (std)	4.1 (4.8)	8.1 (9.7)	7.1 (14.8)	2.0 (2.9)	2.3 (2.8)	2.8 (5.0)	1.3 (3.0)	4.2 (7.3)
median (min, max)	3 (0, 30)	4 (0, 5)	3 (0, 99)	1 (0, 20)	1 (0, 10)	1 (0, 26)	0 (0, 10)	2 (0, 92)

Reporting of episodes of resistance to care

In reporting of episodes of RTC, there is a statistically significant difference across clinical specialties (see Table 10). Nurses in the mental health and aged care sectors are more likely to report episodes. There were 22 participants who did not answer this question.

Table 10: Reporting incident (q7_e_1) by clinical specialty

Response	Emergency (n=178)	Mental health (n=231)	Aged care (n=234)	Medical (n=112)	Surgical (n=57)	Other (n=39)	Primary health care (n=12)	Total (%) (n=863)
No	72 (40%)	38 (16%)	40 (17%)	37 (33%)	29 (51%)	17 (44%)	6 (50%)	239 (28%)
Yes	106 (60%)	193 (84%)	194 (83%)	75 (67%)	28 (49%)	22 (56%)	6 (50%)	624 (72%)

Slightly more than 50% of nurses reported all episodes to resistance to care. The difference approached statistical significant difference in the type of episodes of RTC and clinical speciality ($p=0.06$). Whilst 53% of nurses reported all episodes, overall 21% reported only when concerned or upset about the episode, 18% reported only for the purpose of preventing it occurring again and 8.3% reported only those episodes that resulted in an injury (see Table 11).

Table 11: Type of incident reported (q7_e_2) by clinical specialty

Response	Emergency (n=100)	Mental health (n=185)	Aged care (n=190)	Medical (n=71)	Surgical (n=27)	Other (n=21)	Primary health care (n=6)	Total (%) (n=600)
All episodes	42 (42%)	106 (57%)	103 (54%)	43 (61%)	8 (30%)	13 (62%)	3 (50%)	318 (53%)
Only episodes that resulted in an injury	7 (7.0%)	16 (8.7%)	15 (7.9%)	8 (11%)	3 (11%)	0	0	49 (8.2%)
Only for the purpose of preventing it occurring again	20 (20%)	29 (16%)	38 (20%)	12 (17%)	6 (22%)	1 (4.8%)	1 (17%)	107 (18%)
Only when concerned or upset about the episode	31 (31%)	34 (18%)	34 (18%)	8 (11%)	10 (37%)	7 (33%)	2 (33%)	126 (21%)

Pearson $\chi^2(18) = 28.4$ $p = 0.06$

Study respondents report that a variety of methods are used in the reporting of episodes of RTC; paper report, electronic report and verbally to manager/team leader. There is a statistically significant difference in the proportions of report methods across clinical practice areas. The highest proportions of paper reports are in aged care, whilst mental health and emergency departments are more likely to report electronically or to a manager/team leader. ED, surgical and medical ward and primary health care nurses report verbally (see Table 12).

Table 12: How incidents were reported (q7_f) by clinical specialty

Response	Emergency (n=98)	Mental health (n=176)	Aged care (n=176)	Medical (n=67)	Surgical (n=26)	Other (n=19)	Primary health care (n=5)	Total (%) (n=567)
Paper report	7 (7.0%)	41 (23%)	116 (66%)	12 (16%)	3 (12%)	7 (35%)	2 (40%)	188 33%
Electronic report	45 (46%)	90 (51%)	34 (19%)	22 (33%)	6 (23%)	6 (32%)	0	203 36%
Verbally to manager/team leader	46 (47%)	45 (26%)	26 (15%)	32 (48%)	17 (65%)	6 (32%)	3 (60%)	175 31%
Not sure how to do this	0	0	0	1 (1.5%)	0	0	0	1 0.2%

Pearson $\chi^2(18) = 171.2$ $p = <0.01$

Seventy seven percent of study respondents reported that reporting an RTC episode does not lead to organisational change (see Table 13); however there is a statistically significant difference between clinical practice areas, in the proportions reporting organisational change as a result of reporting RTC episodes ($p = <0.01$). Organisational change was most frequently reported in the aged care sector as a result of reporting an RTC episode.

Table 13: Organisational changes (q7_g) by clinical specialty

Response	Emergency (n=175)	Mental health (n=226)	Aged care (n=233)	Medical (n=107)	Surgical (n=52)	Other (n=36)	Primary health care (n=10)	Total (%) (n=839)
No	159 (91%)	165 (73%)	146 (63%)	90 (84%)	47 (90%)	27 (75%)	9 (90%)	643 (77%)
Yes	16 (9%)	61 (27%)	87 (37%)	17 (16%)	5 (10%)	9 (25%)	1 (10%)	196 (23%)

Pearson $\chi^2(6) = 56.7$ $p = <0.01$

Study respondents were asked to describe whether their organisation/department/unit introduced any changes as a consequence of episodes of RTC. The 206 responses are categorised in Table 14. The most common changes were a review of patient medications, case review/management and staff to patient ratio (staffing).

Table 14: Changes made after RTC episodes (q7_g_other_cat) by clinical specialty

Response	Emergency (n=16)	Mental health (n=64)	Aged care (n=88)	Medical (n=17)	Surgical (n=6)	Other (n=13)	Primary health care (n=2)	Total (%) (n=206)
Medication review	0	12 (19%)	32 (36%)	3 (18%)	0	3 (23%)	0	50 (24%)
Training	2 (13%)	3 (4.7%)	7 (8.0%)	1 (5.9%)	0	1 (7.7%)	0	14 (6.8%)
Case review/management	4 (27%)	19 (30%)	7 (8.0%)	1 (5.9%)	1 (17%)	3 (23%)	1 (50%)	36 (17%)
Staff to patient ratio	2 (13%)	5 (7.8%)	9 (10%)	4 (24%)	1 (17%)	0	0	21 (10%)
Alert	1 (6.3%)	5 (7.8%)	1 (1.1%)	1 (5.9%)	1 (17%)	1 (7.7%)	1 (50%)	11 (5.3%)
Referral to specialist	0	2 (3.1%)	7 (8.0%)	0	0	0	0	9 (4.4%)
Security responses	1 (6.3%)	3 (4.7%)	0	1 (5.9%)	0	0	0	5 (2.4%)
Medical/behavioural review	0	0	5 (5.7%)	0	1 (17%)	0	0	6 (2.9%)
Behavioural/diversional therapy	1 (6.3%)	0	8 (9.1%)	1 (5.9%)	0	1 (7.7%)	0	11 (5.3%)
Transferred	0	3 (4.7%)	2 (2.3%)	0	1 (17%)	0	0	6 (2.9%)
Environmental modifications	2 (13%)	0	0	0	0	0	0	2 (1.0%)
Communication with patient	0	2 (3.1%)	1 (1.1%)	1 (5.9%)	0	1 (7.7%)	0	6 (2.9%)
Other/unspecified	3 (19%)	10 (16%)	9 (10%)	4 (24%)	0	3 (23%)	0	29 (14%)

Respondents reported the gender of the patients involved in instances of RTC; 66% reported instances involved both males and females (see Table 15). However, there is a difference in the proportions reported by clinical specialty that is statistically significant ($p < 0.01$), and the areas where both genders were most likely to be involved were ED, mental health and aged care. In the five clinical areas that were the focus of this study, males were viewed as more often involved in RTC episodes however in the aged care setting there was no difference between genders.

Table 15: Gender of patients typically involved in episodes of RTC (q7_h) by clinical specialty

Response	Emergency (n=178)	Mental health (n=226)	Aged care (n=238)	Medical (n=111)	Surgical (n=58)	Other (n=40)	Primary health care (n=13)	Total (%) (n=864)
Male	30 (17%)	57 (24%)	42 (18%)	43 (39%)	21 (36%)	9 (23%)	3 (23%)	205 (24%)
Female	7 (3.9%)	1 (4.7%)	33 (14%)	13 (12%)	7 (12%)	11 (28%)	6 (46%)	78 (9%)
Both	141 (79%)	168 (71%)	163 (68%)	55 (50%)	30 (52%)	20 (50%)	4 (31%)	581 (67%)

Pearson $\chi^2(12) = 84.37$ $p = < 0.01$

Study respondents reported the age groups of patients typically involved in episodes of RTC. There were significant differences between areas of clinical practice and patient age groups and the key results are: Patients aged 70-90 years were typically involved in RTC episodes overall and particularly in aged care, medical and surgical wards. The other major age groups were 20-40 years overall and particularly in ED, mental health, primary health care and other settings (see Table 16).

Table 16: Patient age groups typically involved in episodes of RTC (q7_i) by clinical specialty#

Age Group	Emergency (n=180)	Mental health (n=238)	Aged care (n=242)	Medical (n=113)	Surgical (n=58)	Other (n=41)	Primary health care (n=13)	Total (%) (n=885)
<12 years	21 (12%)	2 (0.8%)	0	9 (8.0%)	4 (6.9%)	0	0	36 (4.1%)
12-19 years	51 (28%)	46 (19%)	0	9 (8.0%)	4 (6.9%)	5 (12%)	1 (7.7%)	116(13%)
20-29 years	137 (76%)	165 (69%)	3 (1.2%)	25 (22%)	18 (31%)	21 (51%)	5 (38%)	374 (42%)
30-39 years	112 (62%)	153 (64%)	5 (2.1%)	20 (18%)	19 (33%)	21 (51%)	5 (38%)	335 (38%)
40-49 years	73 (41%)	129 (54%)	5 (2.1%)	33 (29%)	15 (26%)	8 (20%)	3 (23%)	266 (30%)
50-59 years	39 (22%)	97 (41%)	19 (7.9%)	31 (27%)	10 (17%)	5 (12%)	2 (15%)	203 (23%)
60-69 years	38 (21%)	60 (25%)	61 (25%)	36 (32%)	14 (24%)	7 (17%)	2 (15%)	218 (25%)
70-79 years	51 (28%)	37 (16%)	151 (62%)	48 (42%)	20 (34%)	7 (17%)	3 (23%)	317 (36%)
80-89 years	60 (33%)	18 (7.6%)	197 (81%)	44 (39%)	24 (41%)	15 (37%)	2 (15%)	360 (41%)
90-99 years	12 (6.7%)	7 (2.9%)	89 (37%)	10 (8.8%)	4 (6.9%)	4 (9.8%)	1 (7.7%)	127 (14%)
100+ years	0	0	11 (4.5%)	0	0	0	0	11 (1.2%)

Respondents could select more than one age category

Patient Diagnoses/clinical signs/symptoms

The 10 most frequently reported diagnoses/symptoms in most specialty areas (see Table 17) were:

- Dementia 56%
- Mood disorders (depression, bipolar affective disorder) 54%
- Agitation 54%
- Substance misuse (drugs and/or alcohol) 45%
- Anxiety 45%
- Psychoses (predominantly in ED and mental health) 42%
- Personality disorders (predominantly in ED and mental health) 41%
- Disorientation/confusion 35%
- Involuntary admissions (specifically in ED and mental health) 26%
- Delirium (predominantly in ED and medical and surgical wards) 23%

These diagnoses and symptoms may be predictive of RTC episodes in various clinical settings including ED, mental health and aged care.

Table 17: Diagnoses/clinical signs/symptoms of patients who displayed RTC behaviour (Q9) by clinical specialty

Diagnoses/Symptoms	Emergency (n=180)	Mental health (n=238)	Aged care (n=242)	Medical (n=113)	Surgical (n=58)	Other (n=41)	Primary health care (n=13)	Total (%) (n=885)#
Delirium	64 (36%)	35 (15%)	42 (17%)	35 (31%)	16 (28%)	6 (15%)	3 (23%)	201 (23%)
Dementia	95 (53%)	59 (25%)	231 (95%)	62 (55%)	26 (45%)	16 (39%)	5 (38%)	494 (56%)
Mood disorders e.g. depression, bipolar affective disorder	109 (61%)	177 (74%)	126 (52%)	33 (29%)	13 (22%)	16 (39%)	7 (54%)	481 (54%)
Anxiety	73 (41%)	109 (46%)	130 (54%)	38 (34%)	20 (34%)	20 (49%)	7 (54%)	397 (45%)
Psychoses	81 (45%)	198 (83%)	61 (25%)	18 (16%)	4 (6.9%)	7 (17%)	4 (31%)	373 (42%)
Personality disorders	82 (46%)	178 (75%)	47 (19%)	28 (25%)	5 (8.6%)	14 (34%)	5 (38%)	359 (41%)
Involuntary admissions	65 (36%)	134 (56%)	21 (8.7%)	5 (4.4%)	0	5 (12%)	1 (7.7%)	231 (26%)
Intellectually disabled	29 (16%)	52 (22%)	29 (12%)	9 (8.0%)	6 (10%)	1 (2.4%)	2 (15%)	128 (14%)
Agitation	79 (44%)	147 (62%)	149 (62%)	55 (49%)	27 (47%)	15 (37%)	5 (38%)	447 (51%)
Substance misuse (Drugs and/or alcohol)	145 (81%)	144 (61%)	21 (8.7%)	43 (38%)	25 (43%)	17 (41%)	5 (38%)	400 (45%)
Drug interactions/toxicity	42 (23%)	33 (14%)	12 (5.0%)	11 (9.7%)	4 (6.9%)	4 (9.8%)	3 (23%)	109 (12%)
Disorientation/confusion	60 (33%)	55 (23%)	129 (53%)	35 (31%)	18 (31%)	9 (22%)	3 (23%)	309 (35%)
Postoperative confusion/withdrawal from effects of anaesthetics	5 (2.8%)	2 (0.8%)	1 (0.4%)	8 (7.1%)	20 (34%)	2 (4.9%)	1 (7.7%)	39 (4.4%)
Head injury	59 (33%)	25 (11%)	13 (5.4%)	17 (15%)	5 (8.6%)	4 (9.8%)	1 (7.7%)	124 (14%)
Hypoxia	29 (16%)	5 (2.1%)	21 (8.7%)	13 (12%)	6 (10%)	2 (4.9%)	2 (15%)	78 (8.8%)
Infection	31 (17%)	5 (2.1%)	66 (27%)	28 (25%)	10 (17%)	3 (7.3%)	3 (23%)	146 (17%)
Acute pain	42 (23%)	10 (4.2%)	45 (19%)	21 (19%)	22 (38%)	8 (20%)	2 (15%)	150 (17%)
Chronic pain	31 (17%)	24 (10%)	79 (33%)	20 (18%)	6 (10%)	4 (9.8%)	3 (23%)	167 (19%)
Dehydration	18 (10%)	3 (1.3%)	19 (7.9%)	8 (7.1%)	4 (6.9%)	1 (2.4%)	1 (7.7%)	54 (6.1%)
Hunger	10 (5.6%)	7 (2.9%)	11 (4.5%)	4 (3.5%)	7 (12%)	1 (2.4%)	1 (7.7%)	41 (4.6%)
Fatigue	8 (4.4%)	11 (4.6%)	25 (10%)	11 (9.7%)	2 (3.4%)	7 (17%)	1 (7.7%)	65 (7.3%)
Paediatric emergency	32 (18%)	1 (0.4%)	0	5 (4.4%)	2 (3.4%)	0	0	40 (4.4%)
Other	2 (1.1%)	3 (1.3%)	1 (0.4%)	1 (0.9%)	3 (5.2%)	1 (2.4%)	1 (7.7%)	12 (1.4%)
Unknown	10 (5.6%)	4 (1.7%)	15 (6.2%)	5 (4.4%)	2 (3.4%)	2 (4.9%)	2 (15%)	40 (4.5%)

Participants could select all diagnoses or clinical signs/symptoms that apply

Resistance to Care Behaviours

In this section we describe the responses of study participants to a series of questions about behaviours displayed by patients during episodes of RTC they have observed or in which they have been involved (n=885).

The 10 most frequently reported non-physical behaviours displayed by patients in most specialty areas (see Table 18) were:

- Verbal abuse including anger, swearing, rudeness, sarcasm 86%
- Verbally objecting e.g. refusing medications 76%
- Screaming/shouting 73%
- Threat of harm and/or physical abuse 55%
- Derogatory comments/ridicule (professional or personal) 54%
- Complaining/whingeing, (includes unjustified criticism) 53%
- Pulling away 50%
- Manipulative/coercive behaviour 41%
- Grabbing an object 39%
- Absconding 38%

In addition, self harm was reported frequently across specialty areas except in aged care. In aged care, patients refusing to open their mouth during feeding or refusing to swallow was more frequently reported. These behaviours provide an indication of the clinical challenges that nurses' deal with on a daily basis in the course of their normal work.

Table 18: Non physical behaviours displayed by patients during RTC episode (Q10_a) by clinical specialty#

Behaviours	Emergency (n=180)	Mental health (n=238)	Aged care (n=242)	Medical (n=113)	Surgical (n=58)	Other (n=41)	Primary health care (n=13)	Total (%) (n=885)
Grabbing an object	64 (36%)	102 (43%)	116 (48%)	35 (31%)	17 (29%)	6 (15%)	1 (7.7%)	341(39%)
Verbally objecting e.g. refusing medications	132 (73%)	197 (83%)	200 (83%)	76 (67%)	38 (66%)	22 (54%)	8 (62%)	673(76%)
Pulling away	91 (51%)	92 (39%)	155 (64%)	56 (50%)	32 (55%)	12 (29%)	4 (31%)	442(50%)
Crying	63 (35%)	80 (34%)	69 (29%)	23 (20%)	18 (31%)	12 (29%)	5 (38%)	270 (31%)
Screaming/shouting	144 (80%)	205 (86%)	164 (68%)	69 (61%)	39 (67%)	22 (54%)	6 (46%)	649 (73%)
Turning away	57 (32%)	85 (36%)	90 (37%)	41 (36%)	16 (28%)	13 (32%)	3 (23%)	305 (34%)
Cringing	16 (8.9%)	18 (7.6%)	26 (11%)	7 (6.2%)	6 (10%)	4 (9.8%)	1 (7.7%)	78 (8.8%)
Rigidity	27 (15%)	40 (17%)	86 (36%)	28 (25%)	15 (26%)	6 (15%)	0	202 (23%)
Slumping	16 (8.9%)	39 (16%)	27 (11%)	5 (4.4%)	5 (8.6%)	4 (9.8%)	0	96 (11%)
Verbal abuse including anger, swearing, rudeness, sarcasm	167 (93%)	224 (94%)	204 (84%)	80 (71%)	44 (76%)	34 (83%)	7 (54%)	760 (86%)
Threat of harm and/or physical abuse	112 (62%)	176 (74%)	120 (50%)	37 (33%)	22 (38%)	13 (32%)	3 (23%)	483 (55%)
Derogatory comments /ridicule (professional or personal)	111 (62%)	173 (73%)	109 (45%)	36 (32%)	27 (47%)	18 (44%)	4 (31%)	478 (54%)
Self harm e.g. pulling out tubing/cannulae, cutting self	86 (48%)	85 (36%)	24 (9.9%)	40 (35%)	26 (45%)	9 (22%)	2 (15%)	272 (31%)
Destructive behaviour (property)	68 (38%)	122 (51%)	48 (20%)	16 (14%)	8 (14%)	9 (22%)	1 (7.7%)	272 (31%)
Gesturing	62 (34%)	105 (44%)	61 (25%)	22 (19%)	9 (16%)	8 (20%)	3 (23%)	270 (31%)
Complaining/whingeing (includes unjustified criticism)	109 (61%)	139 (58%)	100 (41%)	55 (49%)	32 (55%)	22 (54%)	8 (62%)	465 (53%)
Threat to property or family	45 (25%)	86 (36%)	26 (11%)	8 (7.1%)	5 (8.6%)	6 (15%)	1 (7.7%)	177 (20%)
Manipulative/Coercive behaviour	77 (43%)	137 (58%)	89 (37%)	30 (27%)	15 (26%)	14 (34%)	5 (38%)	367 (41%)
Grimacing	28 (16%)	36 (15%)	59 (24%)	21 (19%)	7 (12%)	4 (9.8%)	1 (7.7%)	156 (18%)
Refusing to open mouth e.g. during feeding	22 (12%)	29 (12%)	121 (50%)	35 (31%)	15 (26%)	6 (15%)	0	228 (26%)
Refusing to swallow e.g. refusing medications	39 (22%)	71 (30%)	141 (58%)	35 (31%)	18 (31%)	9 (22%)	1 (7.7%)	314 (35%)
Inappropriate exposure of body parts	41 (23%)	79 (33%)	58 (24%)	16 (14%)	11 (19%)	4 (9.8%)	1 (7.7%)	210 (24%)
Absconding	99 (55%)	97 (41%)	69 (29%)	39 (35%)	14 (24%)	14 (34%)	2 (15%)	334 (38%)
Barricading/locking self away from staff	17 (9.4%)	65 (27%)	28 (12%)	3 (2.7%)	2 (3.4%)	2 (4.9%)	0	117 (13%)

Participants could select all activities that apply

The 10 most frequently reported physical behaviours displayed by patients in most specialty areas (see Table 19) were:

- Pushing away (particularly in aged care) 58%
- Hitting/kicking/punching (particularly in aged care) 56%
- Grabbing (particularly in aged care) 53%
- Spitting (more often in ED, mental health and aged care) 42%
- Grabbing and twisting a body part (mostly in aged care) 33%
- Scratching (mostly in aged care) 30%
- Defensive responses (mostly in mental health) 28%
- Biting (mostly in aged care) 26%
- Clawing with nails (mostly in aged care) 24%
- Throwing/striking with an object (mostly in aged care and mental health) 24%

Nurses working in aged care appear to be most at risk of being involved in a RTC episode where physical contact occurs. Other high risk areas suggested by these data are ED and mental health.

Table 19: Physical behaviours displayed by patients during RTC episode (Q10_b) by clinical specialty

Behaviours	Emergency (n=180)	Mental health (n=238)	Aged care (n=242)	Medical (n=113)	Surgical (n=58)	Other (n=41)	Primary health care (n=13)	Total (%) (n=885)#
Pushing away	103 (57%)	111 (47%)	172 (71%)	61 (54%)	38 (66%)	22 (54%)	2 (15%)	509 (58%)
Grabbing	93 (52%)	102 (43%)	176 (73%)	54 (48%)	29 (50%)	14 (34%)	2 (15%)	470 (53%)
Spitting	83 (46%)	104 (44%)	132 (55%)	29 (26%)	11 (19%)	11 (27%)	2 (15%)	372 (42%)
Defensive responses	55 (31%)	85 (36%)	61 (25%)	21 (19%)	14 (24%)	8 (20%)	1 (7.7%)	245 (28%)
Hitting/kicking/punching	97 (54%)	128 (54%)	178 (74%)	47 (42%)	28 (48%)	14 (34%)	1 (7.7%)	493 (56%)
Grabbing and twisting a body part	50 (28%)	63 (26%)	121 (50%)	29 (26%)	17 (29%)	8 (20%)	2 (15%)	290 (33%)
Biting	43 (24%)	59 (25%)	88 (36%)	21 (19%)	11 (19%)	7 (17%)	1 (7.7%)	230 (26%)
Restraining/immobilising staff	10 (5.6%)	29 (12%)	20 (8.3%)	5 (4.4%)	3 (5.2%)	2 (4.9%)	1 (7.7%)	70 (7.9%)
Use of a weapon e.g. knife, gun, sharp implement	15 (8.3%)	26 (11%)	15 (6.2%)	4 (3.5%)	0	3 (7.3%)	0	63 (7.1%)
Full body attack/assault	17 (9.4%)	47 (20%)	16 (6.6%)	4 (3.5%)	0	2 (4.9%)	1 (7.7%)	87 (9.8%)
Inappropriate physical contact	36 (20%)	63 (26%)	48 (20%)	6 (5.3%)	3 (5.2%)	6 (15%)	1 (7.7%)	163 (18%)
Sexual assault	0	9 (3.8%)	6 (2.5%)	1 (0.9%)	1 (1.7%)	2 (4.9%)	0	19 (2.1%)
Throwing/struck with an object	41 (23%)	72 (30%)	72 (30%)	12 (11%)	4 (6.9%)	6 (15%)	1 (7.7%)	208 (24%)
Scratching	49 (27%)	56 (24%)	112 (46%)	27 (24%)	16 (28%)	6 (15%)	1 (7.7%)	267 (30%)
Pulling hair/jewellery/clothing	30 (17%)	43 (18%)	72 (30%)	14 (12%)	8 (14%)	5 (12%)	1 (7.7%)	173 (20%)
Choking	3 (1.7%)	16 (6.7%)	11 (4.5%)	2 (1.8%)	0	0	1 (7.7%)	33 (3.7%)
Threat using chemical /biological hazardous substance	10 (5.6%)	10 (4.2%)	4 (1.7%)	3 (2.7%)	1 (1.7%)	0	0	28 (3.2%)
Clawing with nails	44 (24%)	44 (18%)	90 (37%)	21 (19%)	10 (17%)	4 (9.8%)	1 (7.7%)	214 (24%)
Other	9 (5.0%)	14 (5.9%)	5 (2.1%)	4 (3.5%)	1 (1.7%)	3 (7.3%)	3 (23%)	39 (4.4%)

Participants could select all activities that apply

High risk activities for resistance to care

There were two nursing activities that were identified overall and within each nursing specialty consistently associated with RTC episodes by approximately half of the participants (see Table 20):

- Administering oral medications and
- Communicating with patients (e.g. providing information or advice, counselling and answering questions).

Three other activities were identified overall by approximately one third of participants:

- Showering or assisting patients with personal hygiene (excepting in ED),
- Assessing patients (and taking patient histories) particularly in ED and mental health,
- Restraining patients particularly in ED and mental health.

Other frequently reported nursing activities in various specialties are listed here.

Aged care: toileting patients, positioning/turning/lifting patients, transferring patients, assisting patients to dress, mobilising patients, dressing wounds and feeding patients.

ED: restraining patients, managing patients' reactions to delays, procedures involving sharps, performing procedures and monitoring procedures.

Mental health: restraining patients, procedures involving sharps, waking/rousing patients, and managing patients' reactions to delays.

Medical wards: positioning/turning/lifting patients and transferring patients.

Surgical wards: positioning/turning/lifting patients, managing patients' reactions to delays, procedures involving sharps and waking/rousing patients.

Table 20: Nursing activities engaged in when RTC episodes occurred (Q8) by clinical specialty#

Activities	Emergency (n=180)	Mental health (n=238)	Aged care (n=242)	Medical (n=113)	Surgical (n=58)	Other (n=41)	Primary health care (n=13)	Total (%) (n=885)
Showering patients or assisting with personal hygiene	9 (5.0%)	57 (24%)	139 (57%)	35 (31%)	16 (28%)	4 (9.8%)	2 (15%)	262 (30%)
Feeding patients	7 (3.9%)	22 (9.2%)	65 (27%)	16 (14%)	6 (10%)	2 (4.9%)	0	118 (13%)
Toileting patients	13 (7.2%)	30 (13%)	111 (46%)	20 (18%)	9 (16%)	2 (4.9%)	0	185 (21%)
Dressing patients	6 (3.3%)	32 (13%)	90 (37%)	16 (14%)	6 (10%)	2 (4.9%)	0	152 (17%)
Administering oral medications	51 (28%)	147 (62%)	159 (66%)	46 (41%)	24 (41%)	11 (27%)	5 (38%)	443 (50%)
Procedures involving sharps e.g. Injections	70 (39%)	62 (26%)	32 (13%)	13 (12%)	14 (24%)	6 (15%)	0	197 (22%)
Mobilising patients	10 (5.6%)	25 (11%)	69 (29%)	22 (19%)	10 (17%)	5 (12%)	1 (7.7%)	142 (16%)
Transferring patients	27 (15%)	38 (16%)	98 (40%)	32 (28%)	12 (21%)	8 (20%)	0	215 (24%)
Assessing patients/taking patients history	111 (62%)	87 (37%)	20 (8.3%)	17 (15%)	7 (12%)	13 (32%)	2 (15%)	257 (29%)
Performing procedures e.g. insertion of naso-gastric tubes, catheters	52 (29%)	6 (2.5%)	21 (8.7%)	25 (22%)	6 (10%)	7 (17%)	0	117 (13%)
Performing/assisting with Diagnostic procedures	44 (24%)	17 (7.1%)	14 (5.8%)	11 (9.7%)	4 (6.9%)	5 (12%)	0	95 (11%)
Communicating with patients e.g. information, counselling, advice, questions	85 (47%)	172 (72%)	70 (29%)	42 (37%)	25 (43%)	20 (49%)	10 (77%)	424 (48%)
Provision of Pain management strategies	35 (19%)	13 (5.5%)	41 (17%)	10 (8.8%)	12 (21%)	5 (12%)	2 (15%)	118 (13%)
Dressing wounds	17 (9.4%)	8 (3.4%)	71 (29%)	8 (7.1%)	4 (6.9%)	3 (7.3%)	2 (15%)	113 (13%)
Monitoring procedures	50 (28%)	30 (13%)	16 (6.6%)	14 (12%)	6 (10%)	8 (20%)	1 (7.7%)	125 (14%)
Waking/rousing patients	36 (20%)	59 (25%)	56 (23%)	18 (16%)	14 (24%)	6 (15%)	1 (7.7%)	190 (21%)
Managing patients reaction to delays	80 (44%)	58 (24%)	23 (9.5%)	14 (12%)	20 (34%)	9 (22%)	3 (23%)	207 (23%)
Restraining patients	80 (44%)	95 (40%)	42 (17%)	21 (19%)	8 (14%)	8 (20%)	0	254 (29%)
Positioning/turning/lifting patients	29 (16%)	19 (8.0%)	110 (45%)	40 (35%)	22 (38%)	5 (12%)	1 (7.7%)	226 (26%)
Other	2 (1.1%)	6 (2.5%)	4 (1.7%)	3 (2.7%)	0	2 (4.9%)	0	17 (1.9%)
Not engaged in any nursing activities at the time of the evening	14 (7.8%)	30 (13%)	37 (15%)	10 (8.8%)	6 (10%)	10 (24%)	1 (7.7%)	108 (12%)

Participants could select all activities that apply

6.4 Injuries sustained during episodes of resistance to care

There were 155 participants who reported that they experienced an injury as a result of RTC episodes and no differences in injury rates between speciality areas of practice (see Table 21).

Table 21: Injuries sustained during episode of RTC (q11_a) by Clinical Specialty

Response	Emergency (n=177)	Mental health (n=238)	Aged care (n=241)	Medical (n=112)	Surgical (n=58)	Other (n=40)	Primary health care (n=13)	Total (%) (n=879)
No	148 (84%)	191 (80%)	193 (80%)	96 (86%)	50 (86%)	35 (88%)	11 (85%)	724 (82%)
Yes	29 (16%)	47 (20%)	48 (20%)	16 (14%)	8 (14%)	5 (13%)	2 (15%)	155 (18%)

Pearson $\chi^2(6) = 4.0$ $p = 0.7$

A logistic regression model was used to identify predictors of injury occurrence. The odds of sustaining an injury during an RTC episode for part-time staff was almost twice that of full time staff (see Table 22).

Table 22: Logistic regression modelling on the occurrence of injury

		Injury		Univariate Analysis		Fully Adjusted Model	
Question	Response	No (n=724)	Yes (n=155)	Odds Ratio	Pr > Chi-Square	Odds Ratio	Pr > Chi-Square
Nurse Classification	Enrolled nurse	91 (81%)	22 (19%)	1.2 (0.7, 1.9)	0.6	1.1 (0.6, 2)	0.7
	Other	28 (82%)	6 (18%)	1.0 (0.4, 2.6)	1.0	1.5 (0.6, 3.8)	0.4
	Registered nurse	600 (83%)	125 (17%)	1	.	1	.
Clinical Specialty	Emergency nursing	148 (84%)	29 (16%)	0.8 (0.5, 1.3)	0.4	0.9 (0.5, 1.5)	0.6
	Medical wards	96 (86%)	16 (14%)	0.7 (0.4, 1.2)	0.2	0.7 (0.3, 1.4)	0.3
	Mental health/ drug and alcohol	191 (80%)	47 (20%)	1.0 (0.6, 1.6)	1.0	1.1 (0.7, 1.9)	0.6
	Other	35 (88%)	5 (13%)	0.6 (0.2, 1.5)	0.3	0.4 (0.1, 1.5)	0.2
	Primary health care	11 (85%)	2 (15%)	0.7 (0.2, 3.4)	0.7	0.6 (0.1, 5.4)	0.6
	Surgical wards	50 (86%)	8 (14%)	0.6 (0.3, 1.5)	0.3	0.6 (0.2, 1.6)	0.3
	Aged care	193 (80%)	48 (20%)	1	.	1	.
Work fraction	Casual	26 (84%)	5 (16%)	1.0 (0.4, 2.8)	0.9	0.9 (0.2, 3.0)	0.8
	Part-time	299 (80%)	76 (20%)	1.4 (1, 2.0)	0.08	1.8 (1.2, 2.8)	0.01
	Full Time	390 (84%)	72 (16%)	1	.	1	.
Geographic region	Rural/remote	227 (84%)	43 (16%)	0.9 (0.58, 1.3)	0.4	0.9 (0.6, 1.35)	0.6
	Metropolitan/regional	480 (82%)	106 (18%)	1	.	1	.
Gender	Female	594 (82%)	127 (18%)	1.0 (0.65, 1.6)	1.0	0.9 (0.5, 1.5)	0.6
	Male	129 (83%)	27 (17%)	1	.	1	.
Years of Experience	Mean (SD)	22.2 (12.20)	22.0 (11.46)	1.0 (0.98, 1.0)	0.8	1.0 (1, 1)	0.7
Average hours per w	Mean (SD)	33.0 (12.14)	34.6 (10.22)	1.0 (1, 1.0)	0.1	1.0 (1, 1)	0.03
Age	Mean (SD)	47.2 (10.31)	47.0 (10.00)	1.0 (0.98, 1.0)	0.8	1.0 (1, 1)	0.3

Participants who reported an injury were asked to report the type of injury and rate the severity of their most serious injury in the last month. Although asked to report on the most serious injury only, there were 155 who reported and rated 316 injuries (see Table 23). Eight participants reported 25 injury locations which they rated as severe. These participants worked in the clinical specialties of aged care (n=2), mental health (n=3), medical (n=2) and surgical (n=1). The most frequently reported injuries were bruising, abrasions/grazes and muscle injury/strain/sprain.

Table 23: Type and severity of injury sustained during episode of RTC (Q11_b)

Type of Injury	Severity of Injury				
	Minor	Moderate	Severe	Total (%) (n=316)	Total (%) (n=155)
Exposure to hazardous substance	17 (11)	0	1 (0.7)	18 (5.7)	18 (11)
Abrasion/graze	72 (47)	1 (0.7)	0	73 (23)	73 (47)
Laceration/cut/puncture	21 (14)	1 (0.7)	4 (2.6)	26 (8.2)	26 (17)
Nerve injury	2 (1.3)	3 (2.0)	3 (2.0)	8 (2.5)	8 (5.2)
Tendon injury	3 (2.0)	4 (2.6)	2 (1.3)	9 (2.8)	9 (5.8)
Bruising	81 (52)	7 (4.5)	2 (1.3)	90 (28)	90 (58)
Muscle injury/strain/sprain	48 (31)	10 (6.5)	5 (3.2)	63 (20)	63 (41)
Dislocation	0	0	2 (1.3)	2 (0.6)	2 (1.3)
Fracture	0	0	0	0	0
Burn	4 (2.6)	0	0	4 (1.3)	4 (2.6)
Head injury	2 (1.3)	0	0	2 (0.6)	2 (1.3)
Crush injury	1 (0.7)	2 (1.3)	0	3 (0.9)	3 (2.0)
Internal injury	2 (1.3)	0	1 (0.7)	3 (0.9)	3 (2.0)
Multiple injuries	1 (0.7)	0	1 (0.7)	2 (0.6)	2 (1.3)
Other trauma	8 (5.2)	1 (0.7)	4 (2.6)	13 (4.1)	13 (8.4)
Total	262 (83%)	29 (9.2%)	25 (7.9%)	316	

Participants could select all types of injury that apply

Logistic regression modelling was used to identify nursing activities associated with an increased risk of injury due to resistance to care for this study population.

As shown in Table 24, logistic regression modelling identified three nursing activities as nursing activities were statistically significantly associated with sustaining an injury. Increased odds were identified for nurses undertaking: activities of daily living (OR 1.6: 0.9, 2.4), moving patients (OR 3.4: 2.2, 5.3) and undertaking procedures (OR 1.9: 1.3, 2.9). For participants working with mental health patients the odds of suffering an injury associated with an RTC episode is more than twice that of aged care nurses.

Table 24: Logistic regression modelling on nursing activities that increase risk of injury

		Injury		Univariate Analysis		Fully Adjusted Model	
Question	Response	No (n=948)	Yes (n=155)	Odds Ratio	Pr > Chi-Square	Odds Ratio	Pr > Chi-Square
Clinical Specialty	Emergency nursing	173 (86%)	29 (14%)	0.8 (0.5, 1.3)	0.4	1.5 (0.9, 2.8)	0.2
	Medical wards	133 (89%)	16 (11%)	0.6 (0.3, 1)	0.07	0.8 (0.4, 1.5)	0.4
	Mental health/ drug and alcohol	225 (83%)	47 (17%)	1.0 (0.6, 1.5)	0.9	2.4 (1.4, 4.0)	<0.01
	Other	57 (92%)	5 (8.1%)	0.4 (0.2, 1.1)	0.07	0.9 (0.3, 2.6)	0.9
	Primary health care	48 (96%)	2 (4.0%)	0.2 (0.1, 0.8)	0.03	0.6 (0.1, 2.6)	0.5
	Surgical wards	86 (91%)	8 (8.5%)	0.4 (0.2, 0.9)	0.04	0.8 (0.3, 1.7)	0.5
	Aged care	226 (82%)	48 (18%)	1	.	1	.
Activities of Daily Living	Yes	261 (77%)	78 (23%)	2.7 (1.9, 3.8)	<0.01	1.6 (0.9, 2.4)	0.05
	No	687 (90%)	77 (10%)	1	.	1	.
Moving patients	Yes	206 (72%)	80 (28%)	3.8 (2.7, 5.5)	<0.01	3.4 (2.2, 5.3)	<.01
	No	742 (91%)	75 (9.2%)	1	.	1	.
Procedures	Yes	183 (76%)	59 (24%)	2.6 (1.8, 3.7)	<0.01	1.9 (1.3, 2.9)	<0.01
	No	765 (89%)	96 (11%)	1	.	1	.

Table 25 reports 337 locations of injuries sustained in an episode of RTC. The three most common locations were shoulders and arms (57%), hands and fingers (48%) and faces (25%).

Table 25: Location of injury sustained during episode of RTC (Q11_c)

Injury Location	Injury (n=155)	Injury Location	Injury (n=155)
Eye	9 (5.8%)	Shoulders and arms	88 (57%)
Ear	2 (1.3%)	Hands and fingers	75 (48%)
Face	39 (25%)	Hips and legs	29 (19%)
Head (other than eye, ear or face)	9 (5.8%)	Feet and toes	10 (6.5%)
Neck	22 (14%)	Internal organs	2 (1.3%)
Back (upper/lower)	35 (23%)	Multiple locations (more than one of the above)	1 (0.6%)
Trunk (excluding back and internal organs)	15 (9.7%)	Other	1 (0.6%)

6.5 Outcomes following resistance to care episodes

Participants who reported sustaining an injury during an episode of RTC, also reported other effects (consequences) associated with these episodes (see Table 26). There were 906 responses to this question, and an average of approximately six additional effects per participant.

Of the 155 participants who reported sustaining an injury, 146 responded to this question and more than 20% reported the following negative effects:

- Were fearful or anxious at work (including feared repeat assaults and suffered general anxiety) (92%)
- Felt powerless or helpless (do not expect anything will change) (74%)
- Had reduced morale (53%)
- Felt depressed/low mood or sad (49%)
- Felt angry (41%)
- Felt burned-out or stressed (40%)
- Considered leaving nursing (38%)
- Had difficulty sleeping (32%)
- Experienced lack of empathy towards patients (27%)
- Experienced conflict within their work team (22%)

Interestingly, 30% felt sympathy for the patient who exhibited the RTC behaviour.

Table 26: Other effects associated with sustaining an injury during episode of RTC (Q11_d)

Effects	Injury (%) (n=146)	Effects	Injury (%) (n=146)
Considered leaving nursing	56 (38%)	Family disruption	17 (12%)
Left nursing	1 (0.7%)	Feelings of insecurity	21 (14%)
Transfer to low risk unit/department	14 (9.6%)	Fear of repeat assaults	49 (34%)
Burnout/stress	59 (40%)	Powerlessness	37 (25%)
Fear/Anxiety related to work environment	44 (30%)	Anger	60 (41%)
Reduced morale	77 (53%)	Aggression	9 (6.2%)
Chronic pain/disability	14 (9.6%)	Guilt	8 (5.5%)
Nightmares/flashbacks	18 (12%)	Shame	5 (3.4%)
Lack of empathy towards patients	40 (27%)	Sadness	31 (21%)
Poor sleeping	46 (32%)	Shock	27 (18%)
Anxiety	42 (29%)	Sympathy for patient (who exhibited the RTC)	44 (30%)
Depression/low mood	41 (28%)	Helplessness – don't expect anything will change	71 (49%)
Increase in use of alcohol or other substances/medications	19 (13%)	Post traumatic stress disorder (PTSD)	9 (6.2%)
Relationship issues	15 (10%)	Conflict within the team	32 (22%)

More permanent effects are also observed. One nurse reported she had left nursing as a result of sustaining an injury in an episode of RTC (Table 26) and nine reported permanent disability and change of work duties (see Table 27).

Table 27: Injuries which resulted in permanent disability and change of work duties (q11_e)

Response	Emergency (n=28)	Mental health (n=47)	Aged care (n=48)	Medical (n=16)	Surgical (n=8)	Other (n=4)	Primary health care (n=2)	Total (%) (n= 153)
No	28 (100%)	44 (94%)	46 (96%)	14 (88%)	7 (88%)	4 (100%)	1 (50%)	144 (94%)
Yes	0	3 (6.4%)	2 (4.2%)	2 (13%)	1 (13%)	0	1 (50%)	9 (5.9%)

This section reports the responses of participants who were involved in an episode of RTC.

Participants reported the most effective action in dealing with the consequences of an episode of RTC was talking with other staff (82%) (see Table 28). Talking with managers, the patient involved and friends and family was also considered helpful by many participants; however it is interesting to note that professional counselling was not perceived by many to be effective.

Table 28: Actions that are effective in dealing with RTC episodes (Q12)

Actions	Yes (%) (n=885)	Actions	Yes (%) (n=885)
Talking with other staff	729 (82%)	Nothing helped	47 (5.3%)
Talking with friends and family	275 (31%)	Took no action	79 (8.9%)
Talking with managers	350 (40%)	Clinical supervision/mentoring	3 (0.3%)
Talking with the patient involved	307 (35%)	Relaxation techniques	10 (1.3%)
Professional help e.g. counselling	67 (7.6%)	Patient directed therapies	45 (5.1%)
Talking with union or professional association	26 (2.9%)	Other	14 (1.6%)
Talking with HR or OHS	33 (3.7%)		

Following an episode of RTC 17% of participants reported accessing counselling service. There is a difference in the proportions reported by clinical specialty that is statistically significant ($p < 0.01$); mental health nurses were significantly more likely to access counselling services (33%) (see Table 29).

Table 29: Access to counselling services following an episode of RTC (q14) by clinical specialty

Response	Emergency (n=176)	Mental health (n=238)	Aged care (n=239)	Medical (n=112)	Surgical (n=58)	Other (n=38)	Primary health care (n=13)	Total (%) (n=874)
Yes	24 (14%)	78 (33%)	23 (9.6%)	18 (16%)	3 (5.2%)	4 (10.5%)	1 (7.7%)	151 (17%)
No	71 (40%)	90 (38%)	94 (39%)	44 (39%)	18 (31%)	13 (34%)	4 (31%)	334 (38%)
Not Applicable	81 (46%)	70 (29%)	122 (51%)	50 (45%)	37 (64%)	21 (55%)	8 (62%)	389 (45%)

Pearson $\chi^2(12) = 72.0$ $p < 0.01$

Approximately half of 765 participants reported being supplied with sufficient information/support and follow-up following episodes of RTC. There is however a difference in the proportions reported by clinical specialty that is statistically significant ($p = 0.04$); ED nurses were significantly less likely to report being provided with sufficient information/support (41%) (see Table 30).

Table 30: Sufficient information/support and follow-up provided following an RTC episode (q15) by clinical specialty

Response	Emergency (n=158)	Mental health (n=217)	Aged care (n=205)	Medical (n=96)	Surgical (n=43)	Other (n=34)	Primary health care (n=12)	Total (%) (n=765)
Yes	65 (41%)	126 (58%)	107 (52%)	50 (52%)	25 (58%)	14 (41%)	7 (58%)	394 (52%)
No	93 (59%)	91 (42%)	98 (48%)	46 (48%)	18 (42%)	20 (59%)	5 (42%)	371 (48%)

Pearson $\chi^2(6) = 13.0$ $P = 0.04$

Participants were asked to describe why/why not they perceived that they had/had not been provided with adequate information, support and follow-up after the RTC episodes and there were 529 responses (see Table 31). For participants who reported not receiving sufficient support, the most common reasons provided were that there was a lack of management/organisational response to episodes of RTC (45%) and acceptance as part of normal work (22%) or too many episodes or too busy (18%). For those who perceived they had received sufficient support the most common reasons were a high level of informal support from their nursing peers (informal support) (30%) and management/organisational support (20%).

It is interesting to note that overall more than 30% of participants accepted RTC episodes as part of their normal work whether they received adequate information and support or not.

Table 31: Reasons for being provided adequate information (q15_other_cat)

Reason	Received adequate information/support (%) (n=240)	Did not receive adequate information/support (%) (n=289)
EAP/counselling	14 (5.8)	2 (0.7)
Too many episodes/busy	6 (2.5)	53 (18.3)
Lack of management / organisational response	7 (3.0)	129 (44.6)
High staff support (informal)	71 (30)	3 (1.04)
Acceptance as part of normal work	22 (9.2)	62 (21.5)
Not concerned about it/able to deal with it	14 (5.8)	14 (4.8)
Management/organisational support	48 (20)	1 (0.3)
No RTC episodes	1 (0.4)	0
Changes introduced	20 (8.3)	0
Rehab problems	1 (0.4)	0
Education/in-service/training	13 (5.4)	1 (0.3)
Nurses blamed	0	8 (2.8)
Positive & negative	0	1 (0.3)
Other (includes n/a)	23 (9.6)	15 (5.2)

6.6 Organisational risk prevention and risk management of RTC episodes

In this section we report the responses to Section E of the study questionnaire which was answered by all participants (n=1132).

Data in Table 32 indicate when study participants judged they should report RTC episodes. Whilst the 76% of participants reported that all episodes of RTC should be reported, the remaining 24% only when they were either concerned about the episode,

if an injury occurred or only if they perceived it was possible to prevent its recurrence. These perceptions differ statistically by clinical speciality ($p < 0.01$). Emergency nurses are the least likely to report all episodes of RTC.

Table 32: Perception of when RTC episodes should be reported (q_13_a) by clinical speciality

Response	Emergency (n=203)	Mental health (n=259)	Aged care (n=269)	Medical (n=145)	Surgical (n=92)	Other (n=62)	Primary health care (n=51)	Total (%) (n=1081)
Only if an injury occurs	10 (4.9%)	5 (1.9%)	5 (1.9%)	5 (3.5%)	4 (4.4%)	1 (1.6%)	0	30 (2.8%)
Only if it possible to prevent it occurring again	15 (7.4%)	11 (4.3%)	15 (5.6%)	11 (7.6%)	4 (4.4%)	4 (6.5%)	0	60 (5.6%)
Only if concerned about the episode	49 (24%)	38 (15%)	30 (11%)	20 (14%)	14 (15%)	6 (9.7%)	9 (18%)	166 (15%)
All RTC episodes should be reported	129 (64%)	205 (79%)	219 (81%)	109 (75%)	70 (76%)	51 (82%)	42 (82%)	825 (76%)

Pearson $\chi^2(18) = 35.1$, $p = < 0.01$

Participants were asked to select from a list, and rank the factors that would influence them to report all RTC episodes in which they are involved. The most frequently selected factors overall were: the need to have the risk assessed, confidence in senior management to address the cause and an easier/less time consuming reporting process (see Table 33).

Table 33: Factors which influence the reporting of RTC episodes (Q13_b)

Factors which influence reporting of RTC episodes	Ranked 1	Ranked 2	Ranked 3	Total (%) (n=1132)
The need to have the risk assessed	277 (36%)	197 (26%)	295 (38%)	769 (68%)
An easier/less time consuming reporting process	181 (29%)	170 (27%)	273 (44%)	624 (55%)
Knowing who will manage the episode	58 (19%)	97 (33%)	143 (48%)	298 (26%)
Assurance of confidentiality	55 (22%)	55 (22%)	137 (55%)	247 (22%)
Raised awareness from regular education	76 (17%)	174 (39%)	199 (44%)	449 (40%)
Confidence in Senior Management to address cause	185 (27%)	191 (28%)	301 (44%)	677 (60%)
Counselling about the episode	45 (23%)	59 (30%)	93 (47%)	197 (17%)
Not being blamed	67 (22%)	55 (18%)	177 (59%)	299 (26%)
The legal requirement to report episodes and near misses	156 (30%)	129 (25%)	240 (46%)	525 (46%)
Other	1 (0.1%)	2 (0.2%)	4 (0.4%)	7 (0.6%)
Confident that change will occur	4 (0.4%)	1 (0.1%)	4 (0.4%)	9 (0.8%)
Supportive colleagues	0	1 (0.1%)	4 (0.4%)	5 (0.4%)
Prevention	0	1 (0.1%)	2 (0.2%)	3 (0.3%)
Increase Staffing	0	0	2 (0.2%)	2 (0.2%)
Patient management & treatment plans implemented	6 (0.5%)	2 (0.2%)	2 (0.2%)	10 (0.9%)
Management responsiveness	4 (0.4%)	0	2 (0.2%)	6 (0.5%)
Alert colleagues	4 (0.4%)	0	5 (0.4%)	9 (0.8%)

There were nine common activities overall (reported prevalence >10%) that participants considered were high risk activities for a RTC episode: assisting with medications, assisting with activities of daily living, assisting mental health patients, communications, drug and alcohol issues, assisting with procedures, dementia/delirium patients, assisting compliance and restraint issues and staffing. (see Table 34). When these activities are considered by specialty area of practice, the following activities were identified most frequently:

ED: assisting with mental health patients, drug and alcohol issues, triage, dementia/delirium, procedures, delays, staffing and assisting with medications.

Mental health: assisting with medications, mental health patients, communication, compliance/restraint issues, assessment and admission, staffing, providing assistance with activities of daily living, and drug and alcohol issues.

Aged care: providing assistance with activities of daily living, medications, transferring/mobilising patients, communication, assisting with procedures, repositioning including pressure area care and dementia/delirium pts.

Medical: providing assistance with activities of daily living, medications, assisting with procedures, communication, dementia/delirium patients, drug and alcohol issues, compliance and restraint issues and transferring/mobilising pts.

Surgical: medications, delays, postoperative/trauma/pain, providing assistance with activities of daily living and dementia/delirium and communication.

Primary health care: home visits, communication, medications, drug and alcohol issues and staffing.

Table 34: High risk activities (q16_cat) by Clinical Specialty

Contributing factors	Emergency (n=214)	Mental health (n=276)	Aged care (n=277)	Medical (n=152)	Surgical (n=97)	Other (n=65)	Primary health care (n=51)	Total (%) (n=1132)
Dementia/delirium patients/issues	40 (19)	7 (2.5)	33 (12)	26 (17)	14 (14)	6 (9.2)	5 (9.8)	131 (12)
Mental health patients/issues	87 (41)	93 (34)	5 (1.8)	14 (9.2)	6 (6.2)	9 (14)	3 (5.9)	217 (19)
Medications	26(12)	131 (48)	119 (43)	42 (28)	28 (29)	9 (13.8)	7 (14)	362 (32)
Activities of Daily Living	11 (5.1)	43 (16)	168 (61)	50 (33)	18 (19)	8 (13)	1 (2.0)	299 (26)
Home visit	0	23 (8.3)	3 (1.1)	0 (0.0)	0	2 (3.1)	15 (29)	43 (3.8)
Staffing	27 (13)	45 (16)	16 (5.8)	5 (3.3)	7 (7.2)	8 (12)	6 (12)	114 (10)
Waking/rousing	0	10 (3.6)	7 (2.5)	3 (2.0)	2 (2.1)	0	0	22 (1.9)
Repositioning including pressure area care	1 (0.5)	1 (0.4)	41 (15)	14 (9.2)	8 (8.2)	1 (1.5)	0	66 (5.8)
Procedures	39 (18)	7 (2.5)	45 (16)	31 (21)	11 (1)	5 (7.7)	4 (7.8)	142 (13)
Assessment/admission	17 (7.9)	50 (18)	2 (0.70)	3 (2.0)	1 (1.0)	2 (3.1)	3 (5.9)	78 (6.9)
Communication	20 (9.3)	70 (25)	55 (20)	31 (20)	13 (13)	7 (11)	9 (18)	205 (18)
Transferring/mobilising	2 (0.9)	15 (5.4)	59 (21)	17 (11)	8 (8.2)	2 (3.1)	0	103 (9.1)
Delays	38 (18)	10 (3.6)	2 (0.7)	13 (8.6)	26 (27)	6 (9.2)	2 (3.9)	97 (8.6)
Drug & Alcohol issues	82 (38)	28 (10)	0	22 (15)	9 (9.3)	11 (17)	6 (12)	158 (14)
Triage/Emergency Department	71 (33)	0	0	1 (0.7)	4 (4.1)	0	0	76 (6.7)
Post operative/trauma/pain	7 (3.3)	1 (0.4)	1 (0.4)	8 (5.3)	21 (22)	3 (4.6)	0	41 (3.6)
Other	12 (5.6)	42 (15)	16 (5.8)	8 (5.3)	9 (9.3)	13 (2)	14 (28)	114 (10)
Compliance/restraint issues	13 (6.1)	50 (18)	24 (8.7)	16 (11)	8 (8.2)	4 (6.2)	5 (9.8)	120 (11)
Aggressive patients/persons accompanying	8 (3.7)	19 (6.9)	14 (5.1)	4 (2.6)	1 (1.0)	9 (14)	2 (3.9)	57 (5.0)

Study participants were asked whether their managers/team leaders were approachable and supportive in the event of an RTC injury and the majority (77%) considered they were supportive (see Table 35).

Table 35: Managers/team leaders supportive (q17) by clinical specialty

Response	Emergency (n=203)	Mental health (n=264)	Aged care (n=271)	Medical (n=146)	Surgical (n=95)	Other (n=59)	Primary health care (n=49)	Total (%) (n=1087)
No	47 (23%)	61 (23%)	62 (23%)	31 (21%)	29 (31%)	18 (31%)	6 (12%)	254 (23%)
Yes	156 (77%)	203 (77%)	209 (77%)	115 (79%)	66 (69%)	41 (69%)	43 (88%)	833 (77%)

Study participants were asked to select from a list, all the factors they thought may be contributing/precipitating factors to RTC episodes. The results are presented in Table 36. The most frequently selected factors overall were: confused/disoriented patients, mental health patients, uncooperative/difficult patients, frustrated patients, patients suffering delusions or hallucinations, workload and time management, patients

unrealistic expectations of staff, history of RTC/aggression, substance misuse and patients perceptions of unmet needs.

The category “other” included space/overcrowding problems, lack of management support and acceptance of aggression, cultural factors, interdisciplinary dynamics, smoking policies, lack of security, transfers, insufficient patient history, lack of activities for patients, physical restrictions, children or vulnerable families and lack of insight.

The most frequently reported (>74%) data by clinical specialty are as follows:

ED: substance misuse, mental health issues, long waiting times/delays, confused/disoriented patients, uncooperative/difficult patients, frustrated patients, inadequate staffing and patient's unrealistic expectations of staff.

Mental health; mental health issues, patients suffering delusions or hallucinations, history of RTC or aggression, frustrated patients, uncooperative or difficult patients and substance misuse.

Aged care: confused/disoriented patients, uncooperative patients and frustrated patients.

Medical wards: confused/disoriented patients, mental health issues, uncooperative or difficult patients, frustrated patients and inadequate staffing.

Surgical wards: long waiting times/delays, uncooperative or difficult patients and confused/disoriented patients.

Table 36: Factors contributing to RTC (Q18) by clinical specialty

Contributing factors	Emergency (n=214)	Mental health (n=276)	Aged care (n=277)	Medical (n=152)	Surgical (n=97)	Other (n=65)	Primary health care (n=51)	Total (%) (n=1132)
Substance misuse	204 (95%)	214 (78%)	37 (13%)	102 (67%)	56 (58%)	44 (68%)	36 (71%)	693 (61%)
Confused/disoriented patients	174 (81%)	161 (58%)	263 (95%)	129 (85%)	72 (74%)	44 (68%)	35 (69%)	878 (78%)
Patients fears	111 (52%)	174 (63%)	189 (68%)	105 (69%)	54 (56%)	45 (69%)	29 (57%)	707 (62%)
Patients frustrations	166 (78%)	220 (80%)	206 (74%)	116 (76%)	61 (63%)	49 (75%)	35 (69%)	853 (75%)
Patients suffering delusions or hallucinations	154 (72%)	235 (85%)	187 (68%)	102 (67%)	56 (58%)	39 (60%)	29 (57%)	802 (71%)
Patients interactions with others	60 (28%)	150 (54%)	113 (41%)	48 (32%)	19 (20%)	22 (34%)	20 (39%)	432 (38%)
Mental health issues	200 (93%)	252 (91%)	154 (56%)	123 (81%)	58 (60%)	52 (80%)	41 (80%)	808 (78%)
Prescribed medication	76 (36%)	85 (31%)	107 (39%)	70 (46%)	30 (31%)	23 (35%)	29 (57%)	420 (37%)
Patients perception of unmet needs	149 (70%)	156 (57%)	147 (53%)	92 (61%)	59 (61%)	43 (66%)	31 (61%)	677 (60%)
Uncooperative/difficult patients	173 (81%)	219 (79%)	217 (78%)	115 (76%)	74 (76%)	43 (66%)	36 (71%)	877 (77%)
Patients negative attitudes to staff	124 (58%)	161 (58%)	110 (40%)	75 (49%)	50 (52%)	30 (46%)	29 (57%)	579 (51%)
Patients unrealistic expectations of staff	160 (75%)	46 (65%)	34 (52%)	84 (61%)	63 (68%)	39 (67%)	28 (67%)	454 (67%)
Attitudes of persons accompanying patients	143 (67%)	105 (38%)	92 (33%)	102 (67%)	53 (55%)	37 (57%)	31 (61%)	563 (50%)
History of RTC/aggression	149 (70%)	222 (80%)	180 (65%)	87 (57%)	43 (44%)	35 (54%)	36 (71%)	752 (66%)
Workload and time management	146 (68%)	147 (53%)	174 (63%)	93 (61%)	64 (66%)	41 (63%)	35 (69%)	700 (62%)
Inadequate staffing	163 (76%)	178 (64%)	184 (66%)	112 (74%)	69 (71%)	44 (68%)	33 (65%)	783 (69%)
Lack of staff skills	95 (44%)	153 (55%)	155 (56%)	73 (48%)	41 (42%)	29 (45%)	28 (55%)	574 (51%)
Staff attitudes	45 (21%)	61 (22%)	54 (19%)	41 (27%)	19 (20%)	15 (23%)	18 (35%)	253 (22%)
Lack of communication with patients	96 (45%)	106 (38%)	114 (41%)	72 (47%)	47 (48%)	34 (52%)	27 (53%)	496 (44%)
Noise levels	76 (36%)	127 (46%)	119 (43%)	58 (38%)	29 (30%)	20 (31%)	16 (31%)	445 (39%)
Environmental factors	65 (30%)	81 (29%)	63 (23%)	48 (32%)	20 (21%)	15 (23%)	13 (25%)	305 (27%)
Lack of privacy	83 (39%)	82 (30%)	59 (21%)	57 (38%)	30 (31%)	19 (29%)	17 (33%)	347 (31%)
Personal space issues	63 (29%)	152 (55%)	111 (40%)	43 (28%)	26 (27%)	22 (34%)	16 (31%)	433 (38%)
Long waiting times/delays	189 (88%)	118 (43%)	88 (32%)	95 (63%)	79 (81%)	42 (65%)	32 (63%)	643 (57%)
Other	7 (3.3%)	34 (12%)	12 (4.3%)	10 (6.6%)	6 (6.2%)	4 (6.2%)	3 (5.9%)	76 (6.7%)

6.7 Risk prevention/minimisation measures

Participants were asked to identify from a list, the risk prevention/minimisation measures adopted by their employers (Table 37). The most frequently reported measures were: access to training, duress response teams/processes, knowledge of how to report episodes, behaviour risk assessment, provision of security staff, clear policies for management of aggression, signage about zero tolerance, workplace

redesign that controls access to specific areas, availability of restraints and policies for their use and appropriate dress codes.

The “other” category included: therapeutic measures, staffing, seclusion rooms, locked items or supervision, police, ineffective strategies, none/don’t know and not applicable.

Mental health participants reported more of these measures than other specialty areas (>50% of responses) and included the following measures in addition to those reported overall: safety glass windows, individual management plans and fixing of moveable objects that could be used as weapons.

Aged care participants reported only four of the overall measures (>50% of responses): behaviour risk assessment, knowledge of how to report episodes, access to training and availability of restraints and policies for their use. They reported a substantially lower proportion of responses for Zero tolerance signage, duress response teams/processes, security staff and workplace design to control access to specific areas compared to the other specialties.

Table 37: Risk prevention and minimisation measures adopted by employers (Q19) by clinical specialty

Risk prevention and minimisation measures	Emergency (n=214)	Mental health (n=276)	Aged care (n=277)	Medical (n=152)	Surgical (n=97)	Other (n=65)	Primary health care (n=51)	Total (%) (n=1132)
Access to training	131 (61%)	242 (88%)	172 (62%)	96 (63%)	45 (46%)	39 (60%)	36 (71%)	761 (67%)
Safety oriented culture	61 (29%)	122 (44%)	90 (32%)	38 (25%)	19 (20%)	19 (29%)	24 (47%)	373 (33%)
Duress response teams/processes	156 (73%)	236 (86%)	65 (23%)	91 (60%)	52 (54%)	45 (69%)	28 (55%)	673 (59%)
Signage eg. Zero Tolerance message	137 (64%)	142 (51%)	34 (12%)	83 (55%)	44 (45%)	31 (48%)	21 (41%)	492 (43%)
Fixing of moveable objects that could be used as weapons	47 (22%)	141 (51%)	46 (17%)	15 (9.9%)	6 (6.2%)	10 (15%)	5 (9.8%)	270 (24%)
Safety glass windows	92 (43%)	172 (62%)	44 (16%)	22 (14%)	8 (8.2%)	10 (15%)	10 (20%)	358 (32%)
Workplace redesign that controls access to specific areas	113 (53%)	150 (54%)	79 (29%)	54 (36%)	36 (37%)	28 (43%)	24 (47%)	484 (43%)
Provision of security staff	147 (69%)	144 (52%)	28 (10%)	90 (59%)	51 (53%)	39 (60%)	15 (29%)	514 (45%)
Availability of restraints and policies for their use	105 (49%)	98 (36%)	146 (53%)	70 (46%)	34 (35%)	11 (17%)	5 (9.8%)	469 (41%)
Consultation with management about prevention	39 (18%)	104 (38%)	119 (43%)	34 (22%)	13 (13%)	14 (22%)	16 (31%)	339 (30%)
Knowledge of how to report episodes	89 (42%)	176 (64%)	183 (66%)	83 (55%)	44 (45%)	37 (57%)	28 (55%)	640 (57%)
Appropriate dress codes	86 (40%)	139 (50%)	126 (45%)	52 (34%)	30 (31%)	18 (28%)	14 (27%)	465 (41%)
Communication channels to report RTC and request assistance	60 (28%)	126 (46%)	108 (39%)	55 (36%)	24 (25%)	23 (35%)	18 (35%)	414 (37%)
Individual management plans	56 (26%)	153 (55%)	141 (51%)	33 (22%)	15 (15%)	15 (23%)	14 (27%)	427 (38%)
Admissions policy	20 (9.3%)	94 (34%)	39 (14%)	28 (18%)	10 (10%)	12 (18%)	9 (18%)	212 (19%)
Clear policies for management of aggression	66 (31%)	179 (65%)	121 (44%)	51 (34%)	27 (28%)	23 (35%)	22 (43%)	489 (43%)
Behaviour risk assessment	60 (28%)	179 (65%)	197 (71%)	45 (30%)	17 (18%)	22 (34%)	24 (47%)	544 (48%)
Other	15 (7%)	9 (3.3%)	15 (5.4%)	3 (2.0%)	4 (4.0%)	3 (4.6%)	3 (5.9%)	52 (4.6%)

Participants were asked to identify from a list, the risk management follow-up strategies adopted by their employers (Table 38).

Strategies included in the “other” category included: management support, negative attitudes, staff support and supervision, training and education, inadequate strategies and none.

The most frequently reported strategies were:

1. Reporting and monitoring episodes in the organisation
2. Discussing episodes e.g. At shift handover (less often in ED)
3. Consulting with staff about OH&S issues (most often in aged care)
4. Investigating reported episodes (more often in mental health and aged care)
5. Staff counselling services (most often in mental health)
6. Debriefing (most often in mental health).

Table 38: Risk management follow-up strategies adopted by employers (Q20) by clinical specialty

Risk management follow-up strategies	Emergency (n=214)	Mental health (n=276)	Aged care (n=277)	Medical (n=152)	Surgical (n=97)	Other (n=65)	Primary health care (n=51)	Total (%) (n=1132)
Reporting and monitoring episodes in the organisation	115 (54%)	219 (79%)	211 (76%)	91 (60%)	48 (49%)	41 (63%)	35 (69%)	760 (67%)
Investigating reported episodes prompt follow-up	66 (31%)	146 (53%)	160 (58%)	65 (43%)	30 (31%)	27 (42%)	25 (49%)	519 (46%)
Reporting episodes to police	43 (20%)	67 (24%)	60 (22%)	23 (15%)	13 (13%)	14 (22%)	15 (29%)	235 (21%)
Exit interviews to identify reasons for leaving employment	60 (28%)	64 (23%)	63 (23%)	40 (26%)	22 (23%)	22 (34%)	16 (31%)	287 (25%)
Reviewing staff records - to identify areas of high staff turnover	6 (2.8%)	17 (6.2%)	21 (7.6%)	3 (2.0%)	6 (6.2%)	7 (11%)	3 (5.9%)	63 (5.6%)
Rotating staff in high risk areas	15 (7.0%)	49 (18%)	64 (23%)	13 (8.6%)	4 (4.1%)	8 (12%)	8 (16%)	161 (14%)
External counselling services	42 (20%)	76 (28%)	46 (17%)	26 (17%)	17 (18%)	22 (34%)	11 (22%)	240 (21%)
Staff counselling services	72 (34%)	140 (51%)	65 (23%)	72 (47%)	43 (44%)	29 (45%)	24 (47%)	445 (39%)
Consulting with staff about OH&S issues	63 (29%)	135 (49%)	165 (60%)	65 (43%)	39 (40%)	34 (52%)	28 (55%)	529 (47%)
Debriefing	71 (33%)	133 (48%)	62 (22%)	55 (36%)	31 (32%)	28 (43%)	25 (49%)	405 (36%)
Discussing episodes eg. at shift handover	89 (42%)	177 (64%)	204 (74%)	94 (62%)	49 (51%)	32 (49%)	26 (51%)	671 (59%)
Other	10 (4.7%)	15 (5.4%)	4 (1.4%)	8 (5.3%)	2 (2.1%)	5 (7.7%)	3 (5.9%)	53 (4.7%)

6.8 Organisational strategies for resistance to care

Participants were asked if they considered that their organisations policies and procedures related to the prevention and management of RTC episodes were effective (see Table 39). Half the participants considered that these policies and procedures were ineffective. There were significant differences in this response for ED (approximately one third) and primary health care (approximately three quarters) participants.

Table 39: Workplace policies and procedures effective (q21) by clinical specialty

Response	Emergency (n=200)	Mental health (n=263)	Aged care (n=257)	Medical (n=139)	Surgical (n=88)	Other (n=55)	Primary health care (n=45)	Total (%) (n=1047)
No	126 (63%)	122 (46%)	121 (47%)	71 (51%)	46 (52%)	32 (58%)	11 (24%)	529 (51%)
Yes	74 (37%)	141 (54%)	136 (53%)	68 (49%)	42 (48%)	23 (42%)	34 (76%)	518 (49%)

Pearson chi2(6) = 29.1 p<0.01

Participants were asked to suggest effective ways of preventing RTC episodes occurring in their organisations (Table 40). These data were text entries that were subsequently categorised as shown below. The most frequently suggested strategies (>10%) overall were:

1. More staff
2. Training
3. Management support (particularly in ED, mental health and aged care)
4. Security (mostly in ED and least of all in aged care).

However, it is also important to note that 11% considered that these episodes are not preventable.

Table 40: Most effective way to prevent RTC episodes occurring (Q22) by clinical specialty

Suggested prevention strategies	Emergency (n=214)	Mental health (n=276)	Aged care (n=277)	Medical (n=152)	Surgical (n=97)	Other (n=65)	Primary health care (n=51)	Total (%) (n=1132)
Communication	11 (5.1%)	14 (5.1%)	23 (8.3%)	14 (9.2%)	6 (6.2%)	7 (11%)	6 (12%)	81 (7.2%)
Security	53 (25%)	30 (11%)	4 (1.4%)	12 (7.9%)	9 (9.3%)	5 (7.7%)	4 (7.8%)	117 (10%)
Training	42 (20%)	49 (18%)	78 (28%)	18 (12%)	12 (12%)	13 (20%)	11 (22%)	223 (20%)
Patient education	17 (7.9%)	3 (1.1%)	7 (2.5%)	13 (8.6%)	8 (8.2%)	5 (7.7%)	2 (3.9%)	55 (4.9%)
Nurse approach	2 (0.9%)	15 (5.4%)	21 (7.6%)	3 (2.0%)	1 (1.0%)	1 (1.5%)	3 (5.9%)	46 (4.1%)
More staff	37 (17%)	59 (21%)	55 (20%)	29 (19%)	26 (27%)	17 (26%)	10 (20%)	233 (21%)
Staff skills	3 (1.4%)	37 (13%)	10 (3.6%)	8 (5.3%)	2 (2.1%)	2 (3.1%)	2 (3.9%)	65 (5.7%)
Not preventable	35 (16%)	36 (13%)	33 (12%)	10 (6.6%)	6 (6.2%)	5 (7.7%)	5 (9.8%)	130 (11%)
Management support	27 (13%)	35 (13%)	37 (13%)	10 (6.6%)	8 (8.2%)	10 (15%)	5 (9.8%)	132 (12%)
Restraint/medication	4 (1.9%)	17 (6.2%)	16 (5.8%)	3 (2.0%)	1 (1.0%)	0	0	41 (3.6%)
Multidisciplinary approach	3 (1.4%)	7 (2.5%)	21 (7.6%)	4 (2.6%)	8 (8.2%)	1 (1.5%)	0	44 (3.9%)
Reduce delays	10 (4.7%)	2 (0.7%)	0	2 (1.3%)	6 (6.2%)	3 (4.6%)	1 (2.0%)	24 (2.1%)
Patient management plans	7 (3.3%)	20 (7.2%)	19 (6.9%)	11 (7.2%)	4 (4.1%)	3 (4.6%)	3 (5.9%)	67 (5.9%)
Inappropriate patient placement	16 (7.5%)	12 (4.3%)	23 (8.3%)	4 (2.6%)	3 (3.1%)	3 (4.6%)	1 (2.0%)	62 (5.5%)
Reporting/handover	9 (4.2%)	11 (4.0%)	18 (6.5%)	7 (4.6%)	3 (3.1%)	2 (3.1%)	4 (7.8%)	54 (4.8%)
Environmental	26 (12%)	23 (8.3%)	12 (4.3%)	9 (5.9%)	1 (1.0%)	6 (9.2%)	0	77 (6.8%)
Other	7 (3.3%)	24 (8.7%)	14 (5.1%)	8 (5.3%)	8 (8.2%)	3 (4.6%)	1 (2.0%)	65 (5.7%)
Smoking policy	0	3 (1.1%)	0	0	0	0	0	3 (0.3%)

7 Discussion

This study focused on five specialty areas of practice: emergency department, mental health (including drug and alcohol), aged care and medical and surgical nursing. Approximately 1,000 nurses from each specialty area of practice were invited to participate in the study and this resulted in a response rate of 23.3%. Although this is a relatively low response rate, each of these specialty areas of practice was represented in the data. The highest proportions of responses were received from nurses working in mental health, aged care and emergency departments. This may indicate that the phenomenon of resistance to care (RTC) is a well recognised problem that prompted increased responses from nurses working in these clinical areas. Eighty percent of respondents were registered nurses or midwives. For the purpose of this report, the term “nurse” includes nurses and midwives because most nurses at the time of this study who were qualified as midwives were also qualified as nurses. One third of participants were from rural and remote areas. Approximately half of the participants worked full time.

7.1 Nurse reported incidence of RTC episodes

The overall incidence of RTC during the previous month reported by the participants in this study was 80% (range 60-90%). This result cannot be directly compared with the results of any other studies on RTC because previous studies have only reported the proportion of residents who were resistive to care (62%), however staff also reported episodes of resistance to care for a 5 day period and this resulted in RTC in 63% of all staff care interventions⁵. Volicer et al, also reported 12% residents were resistive to care (2837 of 23,837) and episodes per week as follows: 63% of verbally abusive episodes and 75% of physically abusive episodes occurred in residents who were resistive to care.¹⁵

In this study, clinical areas that had a significantly higher frequency of these episodes were emergency departments, mental health and aged care. There were 50 participants who reported working in primary health care and in this clinical setting, the RTC incidence was reported to be 26%; and for 55 participants who reported working in other clinical areas the incidence was reported to be 63%. The reason why some of these recruited participants were not working in the clinical areas of interest in this study is likely to be that the nursing workforce is highly mobile and nurses frequently change jobs or are moved into different clinical areas of practice. Logistic regression modelling confirmed that RTC episodes are significantly less likely to occur in medical and surgical wards and primary health care.

Respondents reported that during the previous month the mean number of these episodes was 8.5 or approximately two per week. However, this increased to 17 or approximately four times per week in aged care and mental health specialisations. A regression model to determine predictors of RTC episodes confirms that these two areas are high risk areas. These data suggest that working in these clinical areas is hazardous for nurses and that they are at risk of sustaining an injury at work related to RTC at least twice a week, and in high risk areas approximately once a day. Previous studies about RTC support this finding for nurses working in nursing homes or residential aged care settings^{4, 5, 8, 12, 15, 45, 47, 48} and in psychiatric hospitals.⁴⁶

In addition, more than two thirds of these episodes are viewed by participants as not preventable and half were viewed by participants as aggressive or violent. It is interesting to note that although half of the respondents working in mental health were male, participants in this clinical specialty reported the second highest frequency of episodes of RTC.

Almost three quarters of participants indicated that they reported episodes of RTC when they occurred, however these were reported significantly more often by respondents from mental health and aged care areas of practice. However, not all episodes are routinely reported. Overall, only half of the respondents reported all the episodes that occurred, approximately 20% only reported episodes if they were concerned or upset about them and a similar proportion reported episodes for the purpose of preventing their recurrence. Eight percent reported only the episodes that resulted in an injury. This underreporting of incidents is similar to the reporting rates and behaviour for incidents in other studies of RTC⁵ and patient initiated violence^{24-26, 31, 43, 52, 54-56, 63, 69, 70}.

The method of reporting varies across clinical specialty areas of practice. Most nurses working in aged care use paper reports, those working in ED and mental health submit reports electronically more than other clinical areas. Verbal reporting is also used frequently by nurses working in ED, surgical and medical wards and primary health care. This may indicate either multiple methods of reporting are in use or that standardised reporting systems are not being used in these organisations.

Less than one quarter of participants reported that organisational changes occurred as a result of internal reporting of RTC episodes. Organisational changes were perceived to occur more often (37%) in aged care organisations. These results are consistent with literature about health care incidents that identifies the perceived inadequacy of

management responses to reporting incidents as a contributing factor to underreporting.^{25, 32, 52, 54, 63, 71}

The most common changes were a review of patient medications, case review/management and staff to patient ratio (staffing). The response of reviewing patient medications may not always be viewed favourably by patients (particularly if they result in subduing a patient)¹⁷ and is unlikely to be an organisational system response, (unless standing orders are in use in a facility). Case review and reassessment of staffing requirements are responses that are more consistent with a team or organisational response.

The areas where RTC episodes involved both patient genders most frequently were the ED, mental health and aged care. In particular there appear to be very similar numbers of patients of both genders involved in RTC behaviours in the aged care setting. Older patients are more often involved in RTC behaviours in aged care, medical and surgical wards. Young adults are more often involved in RTC behaviours in ED, mental health, primary health care and other settings.

7.2 Nurse reported episodes of RTC resulting in an injury in the last month.

There was a reported injury rate of 18% as a result of RTC episodes with no significant differences between clinical areas of practice. Although there have been no previously reported injury rates associated with RTC, it may be useful to compare this result with reported injury rates associated with patient initiated violence; ranging from 39%³⁹ to 51%³⁴. A logistic regression model used to identify predictors of injury occurrence determined that part-time staff were more likely to suffer injury associated with RTC episodes.

7.3 Nurse's perceptions of factors associated with RTC episodes (impact on working life, types of injury and other outcomes, employers risk prevention measures and risk management strategies).

This section discusses data from injuries associated with RTC episodes. Most injuries were sustained on the upper body of injured participants. Types and severity of injuries were reported with an average of two injuries per injured participant. Most injuries (83%) were minor and superficial however, 20% of these were muscle injuries, strains and sprains. A logistic regression model used to identify nursing activities associated with an injury determined that there were four activities with a high likelihood of being associated with a RTC injury:

1. Nurses moving patients
2. Working with mental health patients
3. Nurses assisting with procedures
4. Nurses assisting patients with activities of daily living

These injuries are consistent with a defensive response on the part of patients who may be anxious or confused but not intending to inflict harm.

In this study, all participants also reported other non-physical outcomes following resistance to care injuries. There were multiple outcomes with an average of six per participant. Injured participants suffered a range of psychological effects associated with RTC episodes however the most frequently identified effects (range 49-92%) were fear and anxiety, powerlessness and helplessness and depression/low mood/ sadness and reduced morale. These effects have the potential to have a significant impact on the working life of nurses, particularly where they have no expectation that anything will change and when it results in conflict within their team, burnout or a lack of empathy for patients (and potentially affects the quality of care provided). Almost 40% of those injured considered leaving nursing and approximately 10% transferred to other units.

Nurse's personal lives were also affected by problems such as chronic pain/disability; poor sleep; increased use of alcohol or other substance/medications; relationship issues; family disruption; feelings such as insecurity, anger, aggression, guilt, shame, shock and post traumatic stress disorder. Some participants reported long term effects including permanent disability and change of work duties. The impact on nurses professionally and personally is likely to occur regardless of physical injury.

Similar outcomes have been reported in other studies, including futility¹⁷ helplessness, fear, anxiety, stress, frustration, irritability, anger, antipathy toward patients and long term psychological impact^{22, 24, 52-54, 61, 66}. Nurses also reported leaving their jobs, considering changing employers, having restricted or modified their current work situation, and impacts on patient care^{21, 23, 30, 32, 54, 67, 68}.

Participants involved in RTC episodes reported that the most effective action for dealing with the consequences of these episodes was talking with other staff. This preference for talking with others was considered more helpful than professional counselling which was considered ineffective. Whilst some nurses used professional counselling services, mental health nurses used them significantly more often.

Organisations should be engaged in investigating and following up incidents when they are reported. About half of the participants reported that they received sufficient information, support and follow-up after RTC episodes occurred (excepting ED nurses).

Participants who felt unsupported identified the following major reasons: poor management or organisational response, a cultural acceptance of RTC as a normal part of work and having too many episodes to deal with, or being too busy.

Participants who felt supported identified the following reasons: receipt of informal support from peers, and management and organisational support.

These results suggest that management response and follow-up to an RTC episode can be a critically important factor, particularly in the provision of support to nurses involved in these episodes. This can be supplemented by support from professional peers^{57, 60}. Where workplaces combine support for their staff involved in episodes of RTC and adoption of strategies to prevent RTC episodes; organisational safety culture is sustained with a consequent improvement in the safety of staff at work.

Organisational risk prevention and risk management of RTC episodes

This section discusses data from all participants about organisational risk prevention and risk management of RTC episodes.

Three quarters of participants were of the view that all RTC episodes should be reported, however ED nurses were less likely to support this view. The most frequently identified factors that were considered to influence reporting of incidents were the need to have the risk assessed, confidence in senior management to address the cause and improved reporting processes. In addition, most nurses reported that their managers/team leaders were approachable and supportive in the event of an RTC injury. These factors reinforce the perception of the role of management in responding to these incidents and adopting preventative strategies.

The most frequently reported risk prevention/minimisation measures adopted by employers were access to training, duress response teams/processes, knowledge of how to report episodes, behaviour risk assessment, provision of security staff, clear policies for management of aggression, signage about zero tolerance, workplace design that controls access to specific areas, availability of restraints and policies for their use and appropriate dress codes. Participants working in mental health reported more prevention strategies than all other specialty areas of practice. Aged care participants reported only four of these measures were widely adopted in their organisations had a substantially lower proportion of responses for provision of zero tolerance signage, duress response teams/processes, security staff and workplace design to control access to specific areas.

The most frequently reported management responses to RTC incidents were reporting and monitoring of episodes, discussion of episodes at shift handover, consulting with staff about OH&S issues, investigating reported episodes, staff counselling services and debriefing. Many of these responses occurred more often in mental health and aged care organisations or units.

There were significant differences between specialty groups regarding the effectiveness of policies and procedures related to the prevention and management of RTC episodes and they were viewed as less effective in ED and more effective in primary health care. Overall, only half of the participants considered that they were effective.

The most frequently suggested prevention strategies by participants were more staff, training, management support (especially in ED, mental health and aged care) and security (especially in ED but least of all in aged care).

7.4 Factors associated with RTC episodes (high risk clinical environments, nursing activities, nurse demographics and types of RTC behaviours)

The clinical specialty in which RTC episodes were most frequently reported was aged care. This is consistent with other studies that have reported RTC in aged care facilities ^{4, 5, 8, 12, 15, 45, 47, 48}. In addition, this study has identified two other clinical areas where the risk is high for RTC episodes – mental health ⁴⁶ and ED. RTC has not been previously reported in these clinical areas (except for the study by Werner et al) however, patient initiated aggression and violence have been extensively reported in these areas ^{26, 29-32, 37, 42-44, 50, 54, 55, 60, 61, 63, 66, 70}.

These data are consistent with the patient diagnoses/clinical signs and symptoms most frequently identified by participants, many of which were particularly common in ED and mental health specialties. They include dementia, mood disorders, agitation, substance misuse, anxiety, psychoses, personality disorders, disorientation/confusion, involuntary admissions and delirium; many of which have been identified in previous studies of RTC ^{3, 8, 10, 12, 15, 45}.

Types of RTC behaviours displayed by patients included non-physical and physical behaviours. Frequently reported non-physical behaviours were verbal abuse (including anger, swearing, rudeness and sarcasm), verbal objections, screaming/shouting, threat of harm or physical abuse, derogatory comments/ridicule, complaining/whingeing, pulling away, manipulative/coercive behaviour, grabbing objects and absconding. Frequently reported physical behaviours were pushing, hitting/kicking/punching,

grabbing, spitting, grabbing and twisting body parts, scratching, defensive responses, biting, clawing and throwing/striking with an object; and most of these occurred in aged care and mental health areas of practice.

These behaviours are similar to those reported in other studies on resistance to care^{2, 4, 5, 9, 10, 12, 46, 79}. They are also similar to those reported in studies of patient initiated violence and it is difficult to distinguish between them⁴; however it has been reported that the patients intention is defensive (fearful, avoidance of perceived threat/harm) in the event of resistance to care, and offensive (intent to cause harm) in the event of patient initiated violence^{4, 12, 46}. RTC episodes may be mistaken for violence and may also escalate to violent behaviour^{2, 15}. In this study participant's perceptions that 50% of episodes were aggressive or violent reflects this issue where RTC episodes are not always recognised as such, and some progress from RTC to become aggressive and violent.

Resistance to care is reported to increase as the ability to understand decreases (cognitive impairment)^{5, 10, 15, 46}. Volicer et al reported that there are 2 main reasons why RTC occurs in these patients: communication problems due to lack of comprehension and presence of delusions. Bridges- Parlet also reports that intrusion into a resident's personal space provoked a RTC response.

It is important for nurses to understand whether an incident is actually resistance to care (and therefore defensive) because this will provide the basis for an appropriate therapeutic response¹⁵. Management of RTC requires prevention of escalation by adoption of strategies such as postponement of nursing activities, distraction of residents, and provision of relaxation measures or substitution of a different form of care. Volicer advocates that we "should stop blaming the victim and institute care practices that will promote comfort and quality of life"¹⁵. Other studies support this view. Care givers approaches have been reported to have an important effect on RTC episodes⁴⁷ and the use of staff elderspeak (a type of infantilizing communication) is considered to increase RTC behaviours⁴⁸. Segatore and Adams propose an approach of using constant observation, which is fundamentally about providing a calming presence by a "sitter" during acute episodes of delirium¹⁷.

Reported guidelines for management of RTC behaviour include: assessment of the nurses own feelings; adopting a calm, gentle, patient manner; assessment of the problem; setting realistic goals; generously rewarding achievement of goals and being creative and flexible⁸.

In this study, participants who were involved in RTC episodes reported that there were several nursing activities that were associated with RTC episodes. The most frequently reported activities were administering oral medications, communicating with patients, showering or assisting patients with personal hygiene, assessing patients and restraining patients. Other activities were specific to specialty areas of practice.

For all participants in the study, there were nine common activities overall: Assisting with medications, assisting with activities of daily living, assisting mental health patients, communications, drug and alcohol issues, assisting with procedures, dementia/delirium patients, assisting compliance and restraint issues and staffing.

These factors may be considered together with those reported to be contributing or precipitating factors to RTC episodes. They include confused/disoriented patients, mental health patients, uncooperative/difficult patients, frustrated patients, patients suffering delusions or hallucinations, workload and time management, patient's unrealistic expectations of staff, history of RTC/aggression, substance misuse and patients perceptions of unmet needs.

These contributing factors, and nursing activities are consistent with those reported in previous studies, particularly activities of daily living (including toileting)^{12, 2, 5, 8, 10, 15, 46,} medications and eating^{2, 5, 15, 46;} delusions^{15;} pain and environmental factors^{4, 8, 46;} and fear, powerlessness, embarrassment, frustration and pressure to comply⁸.

The data reported in this study are consistent with previous studies conducted in aged care about resistance to care, although none of them focused specifically on the effect of RTC on nursing staff. The results confirm many of the previously identified components of RTC episodes: Antecedents, resistive behaviours and consequences including injury and associated psychological and professional outcomes. The Resistiveness to Care Model by Mahoney et al illustrates these components². Cody and Grealy describe the implications of RTC in aged care as significant⁵. They consider that nursing staff are inadequately prepared to prevent and manage RTC episodes, and that there is a lack of guidelines. The results of this study also demonstrate that the support and follow-up of staff subsequent to RTC episodes is inadequate.

7.5 Recommendations for employers about RTC and safety in the workplace for nurses

In the health care sector resistance to care is an important occupational health and safety problem and a significant clinical challenge that occurs most frequently in aged care, mental health and emergency departments. It has not been previously reported in

mental health and ED however, this study indicates that they are also high risk areas for RTC episodes that may occur as frequently as four times per week.

The following recommendations may assist employers to respond to this problem and provide improved safety in the workplace for nurses.

1. Health care organisations should revise risk management and risk assessment policies and procedures related to RTC episodes to make them more effective – incorporating the concept of patients’ defensiveness underlying these episodes.
2. Health care organisations should actively promote a culture of safety that is focused on prevention of RTC episodes in the workplace rather than accepting them as not preventable.
3. Health care organisations should consider high risk nursing activities and precipitating/contributing factors that are associated with RTC episodes and develop targeted preventative strategies for RTC episodes.
4. Health care organisation should consider provision of additional preventative strategies such as increased staff, training and security to increase staff safety in high risk clinical areas and in the workplace overall.
5. Health care organisations should consider provision of support to staff in the event of RTC episodes including:
 - a. Improved reporting processes for incidents
 - b. Consistent reporting processes for incidents
 - c. Increased management responses to RTC incidents incorporating investigation, follow-up and institution of organisational changes.
6. Health care employers should recognise the psychological outcomes associated with injuries (and possibly also RTC episodes), that may require additional support. They should actively seek to develop and provide effective strategies to alleviate these outcomes, particularly through increased staff/unit support and debriefing.

7.6 Study strengths and limitations

Strengths

While previous studies have been conducted in aged care and focused on understanding the concept of RTC and its management, this study has extended into other clinical contexts with an emphasis on measuring the effects of RTC on nurses. It has determined that RTC behaviours are similar to those reported in the literature on violence in health care but with less resultant injury. It has also identified that RTC is not limited to aged care settings and is a significant OH&S concern for nurses engaged

in a range of nursing activities in the course of providing assistance to patients with a specific group of diagnoses and symptoms.

Limitations

The response rate to the survey was relatively low and consequently the results may not be representative of the nursing population sampled or generalisable to other populations of nurses. The low response rate had the potential to affect the achievement of the study objectives, however, there was sufficient power to detect significant differences in nurse reported incidence of RTC between clinical areas of interest. Under reporting may also be an issue in this study and may be affected by recall bias however, it is considered unlikely that it would substantially affect the results. It is expected to be a better rate of reporting than that based on routine monitoring and voluntary reporting of incident data.

7.7 Achievement of study objectives

This study has achieved the following objectives including reporting:

1. Nurse reported incidence of one or more episodes of resistance to care in the last month in a range of health care settings.
2. Nurse reported incidence of one or more episodes of resistance to care resulting in an injury in the last month in a range of health care settings.
3. Nurse perceptions of a range of factors associated with resistance to care, including: impact on nurses working life (types of injury and other outcomes), risk prevention measures and risk management strategies adopted by their employers.
4. Identified factors associated with RTC episodes including: high risk clinical environments, nursing activities, nurse demographics and types of RTC behaviours.
5. Recommendations for employers about resistance to care and safety in the workplace for nurses.

7.8 Conclusions

Resistance to care is a significant clinical challenge in the workplace for nurses working in aged care, mental health and emergency departments. The incidence of RTC episodes reported in this study is higher than the incidence of patient initiated violence reported in the literature however, the rate and severity of associated injury is lower. RTC behaviours are similar to those reported in studies of patient initiated violence

however the clinical response to RTC should recognise that RTC is a defensive behaviour. RTC has important associated effects in addition to injury. These effects may occur with or without an injury, and can have long term detrimental effects on nurse's professional and personal lives, and on the quality of patient care. Although some of these episodes are not considered to be preventable, there is scope for management to actively address RTC issues in the workplace. Nursing activities that are known to be associated with RTC episodes can be targeted for the development of preventive strategies. In addition, nurses who are involved in RTC episodes require appropriate management responses in terms of provision of adequate support to alleviate associated effects; and institution of organisational changes to minimise the risk of recurrence.

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9 Attachments

Attachment 1: Pre-notification Postcard



The NSW Nurses' Association is collaborating with the University of Newcastle to conduct a study of nurses' experiences with patients resisting care.

Why is the research being done?

Non-compliance or resistiveness has been reported to precede aggressive behaviour and may lead to nurses being injured.

Participation is entirely voluntary.

If you receive a study package we hope you will consider the invitation to participate.

If you choose to participate, you will be asked to complete an anonymous survey about resistiveness in your workplace.

It should take about 20 minutes to complete.

Thank you for considering the opportunity to participate in this study.

If you would like further information please email Jacqueline.Pich@newcastle.edu.au or phone 02 49215768

Attachment 2: Participant Information Sheet



Information Statement for the Research Project:

Resistance to care, workplace injury and effects on the nursing workforce in NSW



You are invited to participate in the research project identified above which is being conducted by Dr Ashley Kable and Ms Maya Guest, from the Faculty of Health at the University of Newcastle.

Why is the research being done?

The NSW Nurses' Association is interested in the issue of Resistance to Care and resultant injuries among its members and is currently involved in a research study on this topic in collaboration with the University of Newcastle. The purpose of the research is to measure Nurses' experience with Resistance to Care, workplace injury and the effects on the NSW Nursing workforce.

Non-compliance or resistiveness has been reported to precede aggressive behaviour, suggesting a continuum of behaviours that needs investigation. Consequently, there is a risk of injury to health care workers who are dealing with patients who are resistant to care. Other consequences of resistiveness include: Caregivers' stress, burden of care and cost of care.

The expected benefit of this research to the nursing profession is to provide valuable information about Nurses and Resistance to Care in NSW including assessing how often these instances occur and how they may be prevented. Also this research may contribute to policy development and its application in the clinical practice environment about staff safety and Resistance to Care. It will also contribute to the research community and published data about Resistance to Care in the Nursing workplace.

Who can participate in the research?

All nurses currently employed in NSW and involved in delivering direct patient care are eligible to participate in this study. Potential participants have been selected from the NSW Nurses' Association membership data base from a range of clinical working environments. If you are not currently employed in NSW then unfortunately you are not eligible to participate. This invitation has been distributed by the NSW Nurses' Association, on behalf of the researchers.

What choice do you have?

Participation in this research is entirely your choice. Only those people who give their informed consent will be included in the project. Whether or not you decide to participate, your decision will not disadvantage you.

What would you be asked to do?

If you agree to participate, you will be asked to complete and return a survey form about Resistance to Care in your workplace. The survey is anonymous. No information will be collected on this survey that will identify you. The survey form is to be returned to the researchers in a pre-addressed reply paid envelope provided with the project documents. We ask that you do this within the next 2 weeks, but definitely within 2 months of receiving the survey form.

How much time will it take?

The survey form should take about 20 minutes to complete.


What are the risks and benefits of participating?

There will be no direct benefit to you in participating in this research.


There is a slight risk to participants that recalling an event during completion of the survey form may result in stress due to the outcome of the event ONLY if the respondent has Post Traumatic Stress Disorder. It is expected that it is unlikely but possible that this could occur. If you have been diagnosed with Post Traumatic Stress Disorder you may find recalling events during completion of the survey stressful. If you believe this may affect you, you should not continue to answer the questions and should return the survey incomplete. Support can be obtained through organisations such as LIFELINE ph: 131114; your Employers' Employees Assistance Program or the NSWNA ph: 8595 1234 (Sydney metropolitan area) or 1 300 367 962 (rest of NSW).

Attachment 3: Questionnaire

THE UNIVERSITY OF NEWCASTLE AND NSW NURSES' ASSOCIATION

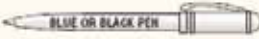



Resistance to care, workplace injury and effects in the nursing workforce in NSW




INSTRUCTIONS:

- Use a blue/black pen or 2B pencil
- Do not use red pen or felt tip pen
- Do not fold or bend
- Erase mistake fully
- Make no stray marks

**Please
MARK LIKE THIS ONLY:**



A. STUDY ELIGIBILITY

1. Have you worked as a nurse in NSW in the last 12 months?

☐ Yes ☐ No — **If NO** – you do not have to answer any more questions.
Please return the survey in the envelope provided. Thank you.

NB: For the purpose of this survey these terms are used:
"Patient" refers to patient/resident/client AND "Nurse" refers to AIN/EN/RN/Midwife.

B. GENERAL WORKPLACE INFORMATION

2. Years of Experience as a nurse →

Example:
Please write in boxes here, then mark oval corresponding to the number in each column.

0

2

1	2
3	4
5	6
7	8
9	10
11	12
13	14
15	16
17	18
19	20
21	22
23	24
25	26
27	28
29	30
31	32
33	34
35	36
37	38
39	40
41	42
43	44
45	46
47	48
49	50

years

3a. What is the average number of hours per week in which you were involved in direct patient care during the last month?

1	2
3	4
5	6
7	8
9	10
11	12
13	14
15	16
17	18
19	20
21	22
23	24
25	26
27	28
29	30
31	32
33	34
35	36
37	38
39	40
41	42
43	44
45	46
47	48
49	50

Hours per week

3b. Is your principal employment (please mark ONE option)

☐ Full time ☐ Part time ☐ Casual

3c. Do you work in a: (please mark ONE option)

☐ Metropolitan/Regional area **OR**

☐ Rural/Remote area

4. Are you (please mark ONE option)

☐ Male ☐ Female

5. What is your age? →

1	2
3	4
5	6
7	8
9	10
11	12
13	14
15	16
17	18
19	20
21	22
23	24
25	26
27	28
29	30
31	32
33	34
35	36
37	38
39	40
41	42
43	44
45	46
47	48
49	50

years

6a. Principal Clinical Area of Practice (please mark ONE option)

☐ Emergency nursing

☐ Mental Health

☐ Drug and Alcohol services

☐ Aged Care/Older person nursing

☐ Medical wards/services

☐ Surgical wards/services

☐ Other – Please specify _____

6b. Nursing Role (please mark ONE option)

- ☐ Assistant in Nursing
☐ Enrolled Nurse
☐ Endorsed Enrolled Nurse
☐ Registered Nurse
☐ Registered Midwife
☐ Clinical Nurse Specialist
☐ Clinical Nurse Consultant
☐ Clinical Educator
- ☐ Nurse Educator
☐ Nurse Manager
☐ Accredited Nurse Practitioner
☐ Nurse Executive (Director of Nursing, DDON, CEO)
☐ Other – Please specify _____

C. RESISTANCE TO CARE (RTC) EPISODES IN YOUR WORKPLACE

Please read this definition and answer the questions that follow:

“Resistiveness to care is defined as the repertoire of behaviours with which persons...withstand or oppose the efforts of caregiver”. Behaviours can range from an expression of minor irritation/unwillingness at one extreme, to non-compliance and ultimately to aggression and violence at the other extreme.

(1) Mahoney, E., Hurley, A., Volicer, L., Bell, M., Gianotis, P., Hartshorn, M., Lane, P., Lesperance, R., MacDonald, S., Novakoff, L., Rheame, Y., Timms, R. and Warden, V. (1999). Development and testing of the resistance to care scale. *Research in Nursing & Health*, 22, 27-38.

7a. In your clinical area, have you been directly involved in one or more episodes of resistance to care (RTC) in the last month?

- ☐ Yes
☐ No → If NO – please go to question 13

7b. If YES - Please estimate how many of these episodes you were involved in, during the last month

0	0
1	1
2	2
3	3
4	4
5	5
6	6
7	7
8	8
9	9

7c. How many of these episodes do you think were preventable?

0	0
1	1
2	2
3	3
4	4
5	5
6	6
7	7
8	8
9	9

7d. How many of these episodes during the last month, did you think were aggressive or violent?

Write one number in each box, e.g.

0	4
---	---

--	--

7e. Did you report these episodes?

- ☐ Yes
☐ No → If NO – please go to question 7g

If YES – Did you report:
(please mark ONE option)

- ☐ All episodes?
☐ Only episodes that resulted in an injury?
☐ Only for the purpose of preventing it occurring again (Hazard identification)?
☐ Only when you were concerned or upset about the episode?

7f. How did you report these episodes?
(please mark ONE option)

- ☐ Completing a report form (paper document)
☐ Completing a report form (electronic document)
☐ Verbally to my manager/team leader
☐ Not sure how to do this

7g. Did your organisation/department/unit introduce any changes as a consequence of these episodes?

- ☐ Yes ☐ No

If YES – please describe _____

7h. Did these episodes usually involve patients who were Male or Female? (please mark ONE option)

- ☐ Male ☐ Female ☐ Both

7i. In what patient age groups did you observe these episodes? (please mark ALL that apply)

- ☐ <12 years ☐ 30-39 years ☐ 60-69 years ☐ 90-99 years
☐ 12-19 years ☐ 40-49 years ☐ 70-79 years ☐ 100+ years
☐ 20-29 years ☐ 50-59 years ☐ 80-89 years

8. Please indicate the nursing activities you were engaged in when RTC episodes occurred.
(please mark ALL activities that apply)

- ☐ Showering patients or assisting with personal hygiene
☐ Feeding patients
☐ Toileting patients
☐ Dressing patients
☐ Administering oral medications
☐ Procedures involving sharps e.g. Injections
☐ Mobilising patients
☐ Transferring patients
☐ Assessing patients/taking patients' history
☐ Performing procedures e.g. insertion of NG tubes, catheters etc
☐ Performing/assisting with Diagnostic procedures
☐ Communicating with patients e.g. information, counseling, advice, answering questions
☐ Provision of Pain management strategies
☐ Dressing wounds
☐ Monitoring procedures
☐ Waking/rousing patients
☐ Managing patients reaction to delays
☐ Restraining patients
☐ Positioning/turning/lifting patients
☐ Other nursing activities - Please describe _____
☐ Not engaged in any nursing activities at the time of the event

9. Please indicate the diagnoses or clinical signs / symptoms of patients who displayed RTC behavior
(please mark ALL that apply)

- ☐ Delirium
☐ Dementia
☐ Mood disorders e.g. depression, bipolar affective disorder, mania
☐ Anxiety
☐ Psychoses
☐ Personality disorders
☐ Involuntary admissions
☐ Intellectually disabled
☐ Agitation
☐ Substance misuse (Drugs and/or alcohol)
☐ Drug interactions/toxicity
☐ Disorientation/confusion
☐ Postoperative confusion/withdrawal from effects of anaesthetic agents
☐ Head injury
☐ Hypoxia
☐ Infection
☐ Acute pain
☐ Chronic pain
☐ Dehydration
☐ Hunger
☐ Fatigue
☐ Paediatric emergency
☐ Other – Please describe _____
☐ Unknown
-

- 10. Please indicate which of the following behaviours displayed by patients, you have observed during RTC episodes.**
(please mark ALL that apply in questions 10a & 10b)

10a. No physical contact with staff

- ☐ Grabbing an object
- ☐ Verbally objecting e.g. refusing medications
- ☐ Pulling away
- ☐ Crying
- ☐ Screaming/shouting
- ☐ Turning away
- ☐ Cowering
- ☐ Rigidity
- ☐ Slumping
- ☐ Verbal abuse including anger, swearing, rudeness, sarcasm,
- ☐ Threat of harm and/or physical abuse
- ☐ Derogatory comments/ridicule (professional or personal)
- ☐ Self-harm e.g. pulling out tubing/cannulae, cutting self
- ☐ Destructive behaviour (property)
- ☐ Gesturing
- ☐ Complaining/whingeing (includes unjustified criticism)
- ☐ Threat to property or family
- ☐ Manipulative/Coercive behaviour
- ☐ Grimacing
- ☐ Refusing to open mouth e.g. during feeding
- ☐ Refusing to swallow e.g. refusing medications
- ☐ Inappropriate exposure of body parts
- ☐ Absconding
- ☐ Barricading/locking self away from staff

10b. Physical contact directed towards staff

- ☐ Pushing away
- ☐ Grabbing
- ☐ Spitting
- ☐ Defensive responses
- ☐ Hitting/kicking/punching
- ☐ Grabbing and twisting a body part
- ☐ Biting
- ☐ Restraining/immobilising staff
- ☐ Use of a weapon e.g. knife, gun, sharp implement
- ☐ Full body attack/assault
- ☐ Inappropriate physical contact
- ☐ Sexual assault
- ☐ Throwing/struck with an object
- ☐ Scratching
- ☐ Pulling hair/jewellery/clothing
- ☐ Choking
- ☐ Threat using chemical /biological hazardous substance (including infectious body substances)
- ☐ Clawing with nails
- ☐ Other – please describe

D. FACTORS ASSOCIATED WITH RESISTANCE TO CARE EPISODES**11a.** Did any of these episodes of resistance to care in the last month result in an injury to you?

- ☐ Yes ☐ No → If NO – please go to question 12

11b. If YES – Please rate the type and severity of your MOST SERIOUS INJURY in the last month on the grid below.

TYPE OF INJURY	SEVERITY OF INJURY		
	Minor injury: not requiring treatment and able to continue work	Moderate injury: requiring treatment with 1-3 lost work days	Severe injury: requiring treatment with 3 or more lost work days
Exposure to hazardous substance	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Abrasion/graze	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Laceration/cut/puncture	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Nerve injury	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Tendon injury	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Bruising	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Muscle injury/ strain/sprain	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Dislocation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Fracture	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Bum	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Head injury	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Crush injury	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Internal injury	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Multiple injuries*	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other trauma*	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

* Please specify _____

11c. Body part(s) injured

(please mark ALL that apply)

- ☐ Eye
☐ Ear
☐ Face
☐ Head (other than eye, ear and face)
☐ Neck
☐ Back (upper/lower)
☐ Trunk (other than back excluding internal organs)
☐ Shoulders and arms
☐ Hands and fingers
☐ Hips and legs
☐ Feet and toes
☐ Internal organs (located in the trunk)
☐ Multiple locations (more than one of the above)
☐ Other - Please specify _____

11d. Did any of the following occur or affect you

after RTC episodes? (please mark ALL that apply)

- ☐ Considered leaving nursing
☐ Left nursing
☐ Transfer to low risk unit/department
☐ Burnout/stress
☐ Fear/Anxiety related to work environment
☐ Reduced morale
☐ Chronic pain/disability
☐ Nightmares/flashbacks
☐ Lack of empathy towards patients
☐ Poor sleeping
☐ Anxiety
☐ Depression/low mood
☐ Increase in use of alcohol or other substances/medications
☐ Relationship issues
☐ Family disruption
☐ Feelings of insecurity
☐ Fear of repeat assaults
☐ Powerlessness
☐ Anger
☐ Aggression
☐ Guilt
☐ Shame
☐ Sadness
☐ Shock
☐ Sympathy for patient (who exhibited the RTC)
☐ Helplessness - don't expect anything will change
☐ Post traumatic stress disorder (PTSD)
☐ Conflict within the team

11e. Did your injury/illness result in permanent disability and change of work duties or inability to work?

- ☐ Yes ☐ No

12. What actions did you find to be effective in dealing with the consequences of RTC episodes?
(please mark ALL that apply)

- ☐ Talking with other staff
☐ Talking with friends and family
☐ Talking with managers
☐ Talking with the patient involved
☐ Professional help e.g. counselling
☐ Talking with union or professional association
☐ Talking with Human Resources or Occupational Health & Safety Representative
☐ Other - please describe _____
☐ Nothing helped
☐ Took no action

E. ORGANISATIONAL RISK PREVENTION AND RISK MANAGEMENT OF RTC EPISODES

13a. When do you think RTC episodes should be reported? (please mark ONE option)

- ☐ Only if injury occurs
☐ Only if it is possible to prevent it occurring again
☐ Only if you are concerned about the episode
☐ All RTC episodes should be reported

13b. Which of the following factors would influence you to report all RTC episodes in which you are involved? (please mark your 3 MOST IMPORTANT reasons and number from 1 to 3)

- ☐ ☐ ☐ The need to have the risk assessed
☐ ☐ ☐ An easier/less time consuming reporting process
☐ ☐ ☐ Knowing who will manage the episode
☐ ☐ ☐ Assurance of confidentiality
☐ ☐ ☐ Increased awareness from regular education
☐ ☐ ☐ Confidence in Senior Management to address cause
☐ ☐ ☐ Counselling about the episode
☐ ☐ ☐ Not being blamed
☐ ☐ ☐ The legal requirement to report episodes and near misses
☐ ☐ ☐ Other (please specify) _____

14. Were you offered access to recognised counselling services after RTC episode(s)?

- ☐ Yes ☐ No ☐ Not Applicable

15. Do you think that you were provided with adequate information, support and follow-up after the RTC episodes in which you were involved?

- ☐ Yes ☐ No ☐ Not involved in any RTC episodes

If you answered YES/NO please describe WHY/WHY NOT?

16. Please list 3 common activities during your working day, which you consider to be high risk activities for a RTC episode.

1.	
2.	
3.	

17. Do you think your managers/team leaders are approachable and supportive in the event of a RTC injury?

☐ Yes ☐ No

18. Which of the following factors do you think may be contributing/precipitating factors to RTC episodes? (please mark ALL that apply)

- ☐ Substance misuse
- ☐ Confused/disoriented patients
- ☐ Patients' tears
- ☐ Patients' frustrations
- ☐ Patients suffering delusions or hallucinations
- ☐ Patients' interactions with others
- ☐ Mental health issues
- ☐ Prescribed medication (possibly due to polypharmacy interactions, toxicity etc)
- ☐ Patients' perception of unmet needs e.g. Pain management
- ☐ Uncooperative/difficult patients
- ☐ Patients' negative attitudes to staff
- ☐ Patients' unrealistic expectations of staff
- ☐ Attitudes of persons accompanying patients
- ☐ History of RTC/aggression
- ☐ Workload and time management
- ☐ Inadequate staffing
- ☐ Lack of staff skills to manage RTC episodes
- ☐ Staff attitudes including racism and religious prejudice, sexism and ageism
- ☐ Lack of communication with patients e.g. not providing adequate information and explanation and gaining informed consent
- ☐ Noise levels
- ☐ Environmental factors - Lighting and temperature
- ☐ Lack of privacy
- ☐ Personal space issues
- ☐ Long waiting times/delays
- ☐ Other – please describe

19. Which of the following risk prevention / minimisation measures have been adopted by your employers?
(please mark ALL that apply)

- ☐ Access to training (e.g. Aggression minimisation training and behaviour management)
- ☐ Safety oriented organisational culture
- ☐ Bussess response teams/processes
- ☐ Signage e.g. Zero Tolerance message
- ☐ Fixing of moveable objects that could be used as weapons
- ☐ Safety glass windows
- ☐ Workplace redesign that controls access to specific areas (e.g. key or card access to staff areas)
- ☐ Provision of security staff
- ☐ Availability of restraints and policies for their use
- ☐ Consultation with management about prevention
- ☐ Knowledge of how to report episodes
- ☐ Appropriate dress codes e.g. avoiding clothing or jewellery that could be grabbed in an attack
- ☐ Communication channels to report RTC and request assistance
- ☐ Individual management plans
- ☐ Admissions policy
- ☐ Clear policies for management of aggression
- ☐ Behaviour risk assessment
- ☐ Other – Please describe _____

20. Which risk management follow-up strategies have been adopted by your employer?
(please mark ALL that apply)

- ☐ Reporting and monitoring episodes in the organisation
- ☐ Investigating reported episodes – prompt follow-up
- ☐ Reporting episodes to police
- ☐ Exit interviews to identify reasons for leaving employment
- ☐ Reviewing staff records – to identify areas of high staff turnover
- ☐ Isolating staff in high risk areas
- ☐ External counselling services
- ☐ Staff counselling services
- ☐ Consulting with staff about CH&S issues
- ☐ Debriefing
- ☐ Discussing episodes e.g. at shift handover
- ☐ Other _____

21. Do you think that your organisations policies and procedures related to prevention and management of RTC episodes are effective?

- ☐ Yes ☐ No

22. In your opinion, what would be the most effective way to prevent RTC-related episodes occurring in your organisation?

*I thank you for taking the time
to complete this survey.
Please return the survey in the envelope provided.*



Attachment 4: Reminder Postcard

Thank you for participating:

Resistance to Care Study

Recently you would have received a study package for the Resistance to Care, workplace injury and effects on the nursing workforce in NSW Study. The purpose of the study is to measure nurses' experiences and perceptions of resistance to care episodes and resultant injury in NSW health care facilities.

If you have already returned your completed survey form to the University of Newcastle, **Thank you!**

If you have not yet returned the survey it is not too late – you can send it now.

If you need another package sent to you please contact: Mary McLeod at NSWNA on 1300367962

Further information:

If you would like further information about the study please contact:

Dr Ashley Kable,

Faculty of Health, The University of Newcastle, Callaghan NSW 2308

Telephone: 02 4921 5768, Email: jacqueline.pich@newcastle.edu.au

Thank you for considering this invitation.

If you have any concerns about the study, you are welcome to contact the Human Research Ethics Officer, Research Office, The Chancellery, The University of Newcastle, University Drive, Callaghan NSW 2308, Australia Telephone 02 4921 6333, Email human-ethics@newcastle.edu.au

Attachment 5: The Lamp Promotion



Announcing the Research Project: Resistance to care, workplace injury and effects on the nursing workforce in NSW



Resistance to care is a phrase used to describe a patient's response to health care staff at the point of care, where the patient's behaviour demonstrates a degree of unwillingness to be assisted by health care staff. This behaviour can range from an expression of minor irritation at one extreme, to non-compliance and ultimately to aggression and violence at the other extreme. The NSW Nurses Association is concerned about the health and safety of nurses in NSW, and in collaboration with the University of Newcastle is conducting a research study into the experiences of resistiveness of their members. Most studies about resistance to care have been conducted on patient populations with dementia, including Alzheimers. No study has been conducted in Australia outside an aged-care setting.

Why is the research being done?

The partners in this project are conducting a study to determine the prevalence of nurses who experience episodes of resistance to care and the proportion which result in an injury in a range of health care settings

You may be invited to participate in this research project which is being conducted by a research team from the Faculty of Health at the University of Newcastle.

If you receive an invitation to participate in the study we would encourage you to complete and return the questionnaire.

Who can participate in the research?

All nurses currently employed in NSW are eligible to participate in this study. Potential participants will be selected from the NSW Nurses Association membership database from a range of workplace categories and geographic locations. Participation in this research is entirely voluntary.

What would you be asked to do?

If you choose to participate, you will be asked to complete and return a questionnaire about your experiences of episodes of resistance to care. The questionnaire should take about 15 minutes to complete and is anonymous. No information will be collected on this questionnaire that will identify the participants.

How can you find out about the results of the survey?

A summary of the results of the study will be provided to the NSW Nurses Association for the purpose of providing feedback to their membership about the results of this study.

If you would like further information about this study please email jacqueline.pich@newcastle.edu.au or contact:

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