

# A literature review of Patient care in the management of agitation leading to violence and aggression in neuroscience nursing.



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## Abstract

**Background:** A correlation exists between staff retention, staff and patient safety and effective prevention of violence and aggression in neuroscience nursing. Workplace violence leads to a lack of productivity amongst nurses and legally a hospital is required to provide a safe working environment. This literature review aims to determine the themes within the literature and effective patient management of agitation leading to violence and aggression.

**Aim:** A literature review of articles was conducted using CINAHL, PubMed, Cochrane database and Google Scholar between 2007-2022.

**Discussion:** The common themes within the literature included assessment of the patient to identify an unmet need, early referrals to members of the interdisciplinary team, effective communication, verbal de-escalation techniques and an understanding of restraint and pharmaceutical management, even though these should be the last resort. Education for staff is fundamental and should include effective communication, warning signs, triggers for aggression, simulation in the clinical context, and verbal de-escalation techniques. Debriefing should take place after an incidence of violence and aggression and effective hospital management should be considered with guidelines and systems in place to support and protect staff and patients.

**Keywords:** Neuroscience nursing, agitation, violence and aggression, staff safety, patient safety, prevention, patient care.

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## Introduction

The management of workplace violence can have a positive or negative impact on quality of care (Tölli, 2018). Positive work experiences, strengthened communication channels, organisational policies and support systems influence the relationship between staff retention and professional commitment to staff safety (Chang et al, 2019). A relationship has been discovered between workplace violence and a lack of work productivity particularly when demonstrating empathy and emotional support to patients (Gates, Gillespie and Succop, 2011). Prevention of workplace violence has been shown to influence the retention of nurses positively (Chang et al; 2019).

## Patient assessment

Early recognition of behaviours such as pacing, mumbling, agitation, staring or change in tone of voice is key to mitigate the risk of violence (Jackson, Wilkes and Luck, 2014; De la Fuente, et al, 2019). Implementation of a prevention strategy is fundamental, and more essential than the management of actual incidents (Adams et al, 2017). Triggers identified include a loss of control, upsetting diagnosis or prognosis, or history of abuse that can be triggered by a current situation, and unmet expectations (Locke, Bromley and Federspiel, 2019). A quiet, low stimulus environment is fundamental for effective sleep and recovery (Mortimer and Berg, 2017). Assessments such as the agitated behaviour scale (ABS) and implementation of individualised care plans has been reported (Amato, Resan and Mion, 2012; Mortimer & Berg, 2017). The agitated behaviour scale has been used to score patients out of 56 with observation of 14 different areas such as attention span, irritability, pulling at tubes and repetitive behaviour (Mortimer & Berg, 2017). The scale measures aggression, disinhibition, and lability. A score of 0-4 is given to each category from absent to present in an extreme form. However it is unclear as to what is done with this information, the observation needs to be taken over a period of time and appears time consuming and has been adapted and used in various hospitals over time. Another reported tool using the acronym STAMPEDAR includes identifying behaviours such as Staring, Tone of voice, Anxiety, Mumbling and Pacing with Emotions, Disease Processes, Assertive or non-assertive behaviour and Resources (Chapman et al, 2013). Whilst tools have their place, they can be time consuming. The early identification of unmet needs is funda-

mental and includes: sleep deprivation, pain, urinary retention, urgency or constipation, overstimulation either by staff, visitors or a noisy environment, waiting times, a lack of communication from staff or frustrations over their condition and recovery (Beattie et al, 2019; Harwood, 2017; Luauté et al 2016). Assessment of the patients' unmet needs is important for nurses in the acute setting to prevent violence occurring. However, time is a barrier to completion; and therefore a quick and easy to use assessment tool of these unmet needs for neuroscience patients would be useful.

## Prevention of agitation

Prevention of violence is important and an assessment of the environment to remove objects that may be used to injure themselves or others is fundamental (Locke, Bromley and Federspiel 2019). These objects could include intravenous drip stands and pumps, oxygen tubing and masks, tables and chairs or even metal cutlery. Nurses must identify previous episodes of violence and hand this over with clear documentation (Adams et al, 2017). Early referral to experts is essential when high risk characteristics are identified to prevent episodes of violence occurring such as referral to mental health, psychiatry or security. Harwood (2017) identified that medical management of the situation is to diagnose and treat but also maintain safety and function, acknowledging that a person-centred approach needs to be combined with this to understand the patient and their psychological and emotional distress. This highlights the importance of working as part of a team collaboratively rather than in isolation. Communication skills are an important aspect of prevention of workplace violence but also during crisis intervention when a situation has escalated (Harwood, 2017; Locke et al, 2019). Violent or aggressive outbursts may be preceded by an interaction between the nurse and patient and therefore communication skills are fundamental (Winken et al, 2019). Non-confrontational communication, relationship building and using negotiating skills are all part of good communication (Harwood, 2017). This includes building a supportive relationship through trust, respect, being polite and building rapport; introducing oneself and addressing the individual by name (Locke et al, 2019). Focusing on non-threatening body language, tone of voice, gestures and facial expressions demonstrating control, controlling own emotions are key to the prevention of triggering agitation. Listening to the individuals' needs validates their feelings and allows an appropriate response

avoiding confronting, contradicting, humiliating or embarrassing comments or behaviour (Harwood, 2017). By listening and speaking slowly and softly, this reduces the sympathetic nervous system activation and the nurse is in a state of social engagement (Geller & Porges, 2014). Active listening is going an extra step to demonstrate listening through body language and repeating back the information given by the patient through use of paraphrasing (Sharifi, et al, 2020). Acknowledgement of what is observed is important for example, "I can see that you are very upset, how can I help?" (Harwood, 2017). Explaining the procedure or task clearly, seeking consent and discussing their concerns empowers and supports the patient to give them a sense of control of the situation (Harwood, 2017; Locke et al, 2019). Verbal de-escalation is important and may prevent the use of restraint or medication. Families may help the situation but may also provoke a poor outcome therefore their role must be established and consequently it may be necessary to ask them to leave if the relationship is not supportive or therapeutic (Harwood, 2017).

Verbal de-escalation is required in a crisis situation, and includes talking, reassuring, compromising, negotiation, and avoiding crowds as this exacerbates the situation (Harwood, 2017). Physical restraint and pharmacological management often are utilised together to prevent harm and promote safety to ensure control is established quickly (Harwood, 2017).

### **Restrictive measures**

Restraint is defined as restricting the patients' movement to prevent harm to themselves or others or to allow therapeutic care (National Institute for Health and Care Excellence (NICE) 2015). Most hospitals and health care providers aim to provide a restraint free service, although when required they aim to prevent adverse events equipping staff with the training required (Tölli et al, 2017). Restraint can be physical to prevent movement, such as holding the patient's arm down with a hand. Restraint can also be mechanical in nature with the use of a device such as wrist restraint or bandages on the hand. Nurses or security staff may use either form of restraint during an episode of violence or aggression or for other reasons such as to prevent the removal of a catheter or nasogastric tube. There is a balance that needs to be managed by nursing staff between safety and ethics considering patient dignity and other options before using restraint as this may cause psychological or physical injury or may prolong

recovery (Department of Health 2014). A therapeutic relationship must remain between the patient and the nurse with respect shown to the patient at all times and teamwork is essential to ensure best outcomes for the patient (NICE, 2015).

One to one observation where a health care assistant or a nurse observes the patient often within arm's length to prevent the patient falling, pulling out equipment or to re-orientate the patient and is commonplace in mental health and neuroscience nursing. This is the preferred method to restrictive methods. Observation and engagement are often described together but rapport with the patient must be established for effective therapeutic engagement to occur (Summerhays et al; 2018). Patients may not be aware of the need or benefits of the one to one support which may agitate the patient further. Keeping a relative at the bed side may assist with the situation and keeping the patient calm, but this would have to be considered as this may also exacerbate the situation. The care of the relative must also be acknowledged and they also require rest as the patient journey can often be turbulent, stressful, long and exhausting. Although relatives can enhance care and support for the patient, removing the need for costly 1-1 healthcare support. The benefits and care of the relative must be considered.

### **Pharmacological treatment of agitation**

There was a variety of literature regarding pharmacological management with many different options considered valuable although evidence for some of these medications was limited. The intention of pharmacological management is to achieve calming of the patient without over-sedation (Bataggia et al, 2003). Amantadine is commonly reported in the literature as useful for the treatment of agitation following a traumatic brain injury in the chronic phase. Amantadine works by increasing the dopamine function in the frontal lobe improving impulse control (Hammond et al, 2014). A prescription of Amantadine 100 milligrams twice daily has been reported to be effective and safe for use in patients displaying irritability or aggression after a traumatic brain injury in the chronic phase, not in the acute phase, as long as creatinine clearance has been established (Ter Mors, Backx, Spauwen et al, 2019; Neumann et al, 2017). Propranolol is a beta-blocker and has been thought to improve irritability, aggressiveness and restlessness, although research is limited and there is a risk of side effects such as hypotension or bradycardia when using higher doses

(Plantier & Luauté 2016). In an emergency situation where the violence or aggression has become out of control, neuroleptics or benzodiazepines can be used but will have a sedating effect and can slow the recovery period (Luauté et al, 2016).

Antiepileptics such as sodium valproate, carbamazepine and oxycarbamazepine have been reported in the use of agitation for patients with a traumatic brain injury for behaviour management (Rahmani et al 2021). Efficacy of atypical psychotics such as olanzapine or quetiapine has been reported as favourable but evidence is inconclusive. In one study quetiapine was thought to prolong the period of post traumatic amnesia for patients with traumatic brain injury (Kooda et al, 2015). Possibly this is because their effects are sedating and the patient cannot participate in their own recovery when they have had this medication in an emergency 'crisis' situation. Rahmani et al, 2021 carried out a systematic review of medications for agitation and recommended avoiding benzodiazepines and haloperidol as these did not demonstrate efficacy and are ineffective for behavioural management, with increased length of stay or increased post traumatic amnesia for the patient. Although it is important to weigh up the safety of the patient, the staff and the other patients as well.

Sertraline, an antidepressant, has been well researched and has been considered for improvement in cognition or mood but has not demonstrated a reduction in agitation (Rahmani et al, 2021). All these medications have been used to support the treatment of agitation in the neuroscience patient but there is not one solution for all patients and therefore careful, early consideration in collaboration with health professionals who have experience in the management of these patients and the effects of these medications is fundamental.

### Education for patients

Education for the patient in the chronic phase is more appropriate than the acute phase of traumatic brain injury and may include anger management or dealing with conflict appropriately with strategies to help them to express their frustration (Hart et al, 2017).

### Education for nurses

Nurses lack support and education on how to deal with these situations (Heckemann, et al, 2019; Henderson et al, 2018; Woon, 2023). Effective training should be provided to ensure the recognition of warning signs, or pre-

diction of aggressive behaviours or triggers, communication skills, assessment of the patient, prevention of workplace violence, and de-escalation of violent episodes (Chapman et al, 2009). Nurses' confidence in dealing with violence and aggression has been shown to increase significantly when focusing on the stages of violent behaviour and warning signs and the nurse is able to manage these situations better as a result, reducing the incidence of violence with better awareness of prevention strategies (de la Fuente, et al., 2019; Tölli, 2018). Regular updates are essential to ensure knowledge is preserved, but the literature is unclear as to how often they should occur,

Simulation has been used to educate on situations of violence and aggression and has been shown to reduce incidence of violence but also prevent situations occurring in the first place (Bordignon & Monteiro, 2019). Adams et al (2017) identified that education should be provided in a clinical context specifically organised for specialist areas rather than a generic course, including feedback from real incidents. In this study, 45% of violence and aggressive incidents decreased following education (Adams et al, 2017). Furthermore, education also has a positive influence on a reduced number of security calls and incident reports (Thompson et al. (2022). In a study of nurses who undertook a behaviour management training course, their confidence significantly increased with an understanding of violent behaviour stages and warning signs, with skills to manage violent situations (de la Fuente et al., 2019).

Verbal de-escalation tools such as the 12 domains of verbal de-escalation (Richmond et al., 2012) can be useful to enhance education and allow for retrieval of information when faced with a real situation. These 12 domains are shown in table 1.

**Table 1 - 12 Domains of verbal de-escalation**

(Richmond et al, 2012, page 20).

- Respect personal space (patients & yours)
- Do not be provocative
- Establish verbal contact
- Be concise
- Identify wants and feelings
- Listen closely to what the patient is saying
- Acknowledge the patient's view
- Communicate clear limits
- Offer choices and optimism
- Debrief the patient and staff

Dixon and Long (2022) identified that training in the area of de-escalation techniques has a positive outcome on a reduced use of restraint and seclusion.

### Organisational support

After an episode of workplace violence, nurses involved should have a discussion with a manager to identify triggers, dynamics and root causes to be prepared for future episodes (Locke, Bromley & Federspiel, 2019). Debriefing should also be provided for the nursing staff to enhance support and enable staff to feel valued. Counselling is often not offered to nursing staff (Woon, 2023).

Hospitals should have a commitment to support nurses when dealing with violence and aggression. This includes establishing a violence incident reporting system, the development of policies and procedures with a clear zero tolerance policy, although evidence has not been demonstrated. An evidence-based workplace violence and aggression safety and prevention education program; and creation of a violence steering group committee are key components. The establishment of rapid response networks including duress alarms, emergency bells or whistles, security and police, and the clear documentation of responsibilities for employees and employers around support for nurses affected by patient or visitor violence should occur (Heckemann et al, 2019; Morphet et al, 2018; Locke, Bromley and Federspiel, 2018). Legally the hospital often fails to meet obligations for a safe working environment (Richardson et al, 2022).

A lack of support from leadership has been identified and perceived by nurses but support provision for staff is fundamental and ensures nurses feel valued and safe (Heckemann et al, 2019; Henderson et al, 2018). Furthermore the consequences of violence and aggression for the organisation include low morale, absenteeism, reduced productivity and "and negatively impacts recruitment and retention (Richardson et al, 2022). Frequent staff turnover leaves patient care delivery to junior nursing teams who lack experience in managing agitation

The presence of an aggression management team has been known to de-escalate a situation without intervention, although this is not always the case (Morphet et al, 2018). Fostering a positive approach as a ward and hospital with a tidy, clean efficient physical environment and a supportive team has value for dealing with violence and aggression

(Heckemann et al, 2019).

### Conclusion

This article considers the themes and weighs up the research for care of the agitated neuroscience patient. This is a difficult topic and the aim of care is always to prevent harm and promote safety for the patient and the staff. Working together as a unified multi-professional team is key to the prevention of agitation. Assessment of the patients' unmet needs is fundamental and perhaps an easy to use assessment tool could be developed specific to neuroscience patients. Early de-escalation is fundamental to prevent harm and effective communication plays a big part in this. Education is also important to consider and ensure this supports the care of the neuroscience agitated patient, specifically utilising simulation to work through the management of difficult situations. Debriefing of 'crisis' situations is fundamental to ensure the prevention of these in the future and to support the staff to work through their feelings. Hospital organisations need to ensure they have systems in place to prevent harm to their staff. Nurses need to experience the support of leaders in the organisation to prevent rapid staff turnover.

As a result of this literature review, it is important to collaborate on care of the agitated neuroscience patient across Australasia to share ideas and support each other so that evidence based practice can be established and recommendations made to prevent harm to the nursing staff.

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