REVIEWS AND DISCUSSION PAPERS

A protocol for responding to aggression risk in residential aged care facilities

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ABSTRACT

Objective: To propose a provisional protocol which organises the existing knowledge base into a set of simple procedural guidelines to support residential aged care staff to respond in a consistent and effective manner when faced with situations where aggression is perceived to be imminent, ideally preventing aggressive behaviours from eventuating.

Background: Aggressive behaviours by older adults in aged care facilities have the potential to cause significant physical and psychological harm, particularly for other residents. Staff are increasingly discouraged from managing such behaviours with restrictive practices such as physical and/or pharmacological restraint. Instead, staff are encouraged to intervene *before* an incident takes place, using interventions that reduce the everyday risk of aggression, as well as those that are implemented when aggression is perceived to be imminent. However, for this to be implemented in a meaningful way, staff must be equipped with the knowledge, skills, and resources to intervene in ways that are respectful and effective. Developing a protocol for responding to imminent risk of aggression by organising the existing knowledge base into a set of straightforward guidelines would support staff to implement preventative strategies in a consistent and effective manner.

Study design and methods: A traditional/narrative literature review was undertaken to critique and synthesise previously published research to identify research that might be relevant to the construction of guidelines for responding to the risk of imminent aggression.

Discussion: This paper proposes a provisional protocol, consisting of a series of interventions for preventing aggression in residential aged care facilities: daily monitoring; de-escalating the situation; identifying and addressing situational triggers, providing an immediate therapeutic intervention, and considering medication. This protocol is necessarily provisional in nature and is intended to be further developed through theoretical critique, expert opinion, consumer feedback, and empirical evaluation.

Implications for research, policy, and practice: Research in four areas would improve the ability of staff to intervene in a preventative manner: (1) developing and validating a daily monitoring tool that would allow staff to identify when aggression is imminent; (2) continuing to build a methodologically sound body of evidence to support the use of specific primary and secondary preventative interventions; (3) understanding whether the causes and processes underlying aggressive behaviour by

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older adults with dementia differ from those without dementia; and (4) determining whether preventative interventions are equally effective for different groups within this population.

Keywords: Aggression, aged care facilities, older adults, prevention, risk

What is already known about the topic?
- Verbal and physical aggression by older adults in residential aged care facilities can cause serious harm to residents and staff.
- A wide variety of approaches to managing imminent risk of aggression in older adults have been proposed, but there is limited empirical evidence to guide staff in choosing the best approach.

What this paper adds:
- An integrated summary of the factors known to influence risk of aggression in older adults.
- A proposed protocol for managing imminent risk of aggression that organises the known literature into a set of clear, specific directions for staff.

INTRODUCTION

Older adults in aged care facilities who engage in aggressive behaviours often have complex physical and/or mental health needs and may have a diminished understanding of their environment and the impact of their actions. At the same time, these aggressive behaviours have the potential to cause significant physical and psychological harm,[1] particularly for other residents. It is crucial that staff are equipped with the knowledge, skills, and resources to intervene in ways that are respectful and effective. This paper reviews evidence for preventative interventions in aged care facilities and proposes a provisional protocol for preventing aggression in residents at heightened risk of imminent aggression.

BACKGROUND

When responding to aggression by older adults in aged care facilities, staff are increasingly discouraged from relying on containment strategies,[2-4] particularly restrictive practices such as physical and/or pharmacological restraint, which may culminate in residents receiving substandard and unsafe care.[5] Such strategies are associated with serious physical and psychological consequences, including falls, cognitive decline, and even premature death.[6] It is widely agreed that these practices should only be used as a last resort, when a person is at serious and imminent risk of harm.[5] Instead, staff are encouraged to intervene *before* an incident takes place,[7] using interventions that reduce the everyday risk of aggression (*primary* preventative interventions), as well as those that are implemented when aggression is perceived to be imminent (*secondary* preventative interventions).[7]

In practice, several issues hinder the ability of staff to intervene in a preventative manner. Aggressive behaviour is often viewed as inevitable and this reduces staff motivation to try to prevent these behaviours.[1] Limited evidence regarding the effectiveness of preventative interventions can further dissuade staff from using these interventions and may increase reliance on containment.[8] Intervening in a preventative manner is particularly challenging when aggression is imminent, as it can be difficult for staff to: (a) bear in mind the myriad person- and situation-related factors that are likely to be related to aggression; and (b) consider a range of possible intervention strategies.

Developing a protocol for responding to imminent risk may address some of these issues by organising the existing knowledge base into a set of straightforward guidelines. Such a protocol would support staff to respond in a consistent and effective manner, ideally preventing aggressive behaviours.[9] There is early evidence from other health care settings that using a protocol linked to systematic structured risk assessment to respond to the risk of imminent aggression may reduce instances of aggression and reliance on coercive interventions.[10] While there is evidence that guidelines for the management of agitation and aggression may help to reduce disruptive behaviour in aged care residents with dementia,[11] there are currently no valid guidelines designed to guide staff on a day-to-day basis.[12] There is, therefore, potential value in developing a protocol that considers how to respond to imminent aggression.

Unfortunately, the development of such a protocol is hampered by a lack of empirical evidence, particularly with regards to non-pharmacological strategies.[13] While a range of potentially helpful interventions have been identified, empirical evidence for the effectiveness of these interventions remains limited, primarily due to methodological complexities and inconsistencies across studies.[8] Given the limited evidence base, it is crucial for any suggested protocol to draw upon theoretical models of aggression in older adults. Many of the models that are currently used to explain aggressive behaviour in older adults do so in the context of *behavioural and psychological symptoms of dementia* (BPSD), a cluster of behavioural symptoms commonly seen in older adults with dementia (e.g., wandering, agitation, repetitive questions, sexual disinhibition, and apathy).[14,15] The reliance on models of BPSD is unsurprising, given that older adults with dementia engage in a disproportionate number of aggressive

behaviours in aged care facilities.[16] It is important to be cognisant, however, that these behaviours are also exhibited by residents *without* dementia.[17] Incorporating a model of aggression that can explain aggression among older adults with and without dementia will allow for a more comprehensive understanding of this behaviour. One such model is the General Aggression Model (GAM),[18] a comprehensive and general model of aggression that is applicable across various contexts and populations. Roberton and Daffern recently considered how the GAM may be applicable to older adults in aged care.[19] As a model that can explain aggressive behaviours exhibited by older adults, the GAM provides a suitable theoretical foundation when considering how to respond to aggression in aged care facilities.

METHOD

A traditional/narrative literature review was undertaken, led by the first author (TR) to critique and synthesise previously published research to identify research that might be relevant to the construction of guidelines for responding to the risk of imminent aggression. An initial search was undertaken using the following search terms: (aged care OR nursing home OR residential aged care facility) AND (aggression OR violence). The search terms were entered into four databases: CINAHL, MEDLINE Complete, and PsychINFO were searched using EBSCOhost, as well as the Cochrane Library. The search was limited to English-language papers published in peer-reviewed journals from 1980 to 2019. The initial search was supplemented by a search of the references of retrieved literature, as well as additional searches of relevant terms identified within the retrieved literature. Searches of Google and Google Scholar were performed in an effort to identify relevant non-analytic studies and expert opinion papers.

RESULTS

A PROPOSED PROTOCOL FOR RESPONDING TO IMMINENT RISK OF AGGRESSION

Overview

This paper proposes a series of interventions that staff in aged care facilities can provide when the risk of aggression rises, with the aim of supporting staff to respond in a consistent manner that ideally reduces the likelihood of aggressive incidents taking place whilst also reducing reliance on coercive and controlling interventions that may be best suited when the risk of aggression is high and when the consequences of aggression may be severe. This protocol is based on the available empirical evidence, using the GAM as a theoretical foundation where empirical evidence is lacking. Figure 1 sets out the components of the proposed protocol, each of which will be considered below.

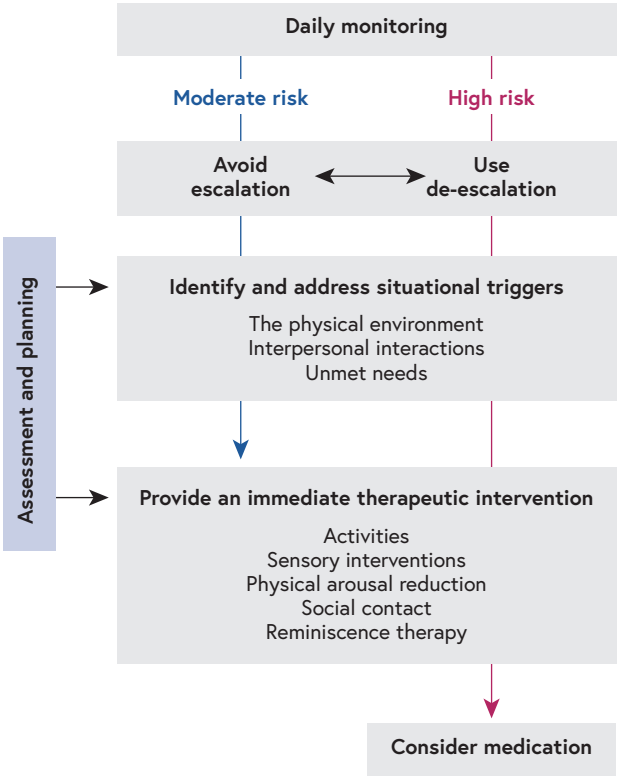

FIGURE 1. A PROPOSED PROTOCOL FOR RESPONDING TO IMMINENT AGGRESSION IN AGED CARE FACILITIES

DAILY MONITORING

The use of an aggression prevention protocol is dependent on staff being able to recognise early warning signs of aggression and accurately identify when residents are most likely to become aggressive.[20] However, this is notoriously difficult using clinical judgement alone.[21] In mental health units, structured, short-term risk assessment instruments are often used to assess the likelihood that an individual will become aggressive within the next 24 hours.[22] Used on a daily basis, these instruments increase the accuracy with which staff can identify people at heightened risk of aggression. They also help identification of people who are a low risk of imminent aggression thereby providing reassurance for staff who might then increase liberties for these people.[23]

Currently, no structured aggression-specific risk assessment instruments have been validated for use in aged care facilities. However, the two brief structured risk assessment instruments that have been shown to improve prediction of imminent aggression (within the next 24 hours) in inpatient mental health care settings – the Dynamic Appraisal of Situational Aggression (DASA)[24] and the Broset Violence Checklist (BVC)[25,26] – may be applicable. Recent research has sought to understand the degree to which existing tools such as these are suitable for use in aged care facilities, and suggests that existing assessment instruments will likely need to be adapted to increase their ability to reliably predict aggression in this population.[19] Once adapted, however, using an assessment tool as the first step in this protocol

would allow for the identification of older adults at moderate or high risk (the meaning of which would need to be contextualised to the instrument) of imminent aggression and may alert staff to the need to begin implementing interventions to prevent aggression. Empirical research will be required to determine whether it is possible to separate out and characterise 'moderate' and 'high' risk people. If this is possible then the protocol may require modification, including delineation of strategies for these two groups. If these two 'groups' cannot be separated empirically using valid risk assessment instruments, then the protocol should not retain recommendations that pertain to 'low' and 'moderate/high' risk of imminent aggression 'groups'.

DE-ESCALATE THE SITUATION

Use de-escalation skills

When aggression is imminent, the priority for staff is to ensure the immediate safety of the resident, staff, and visitors, while helping the resident manage their emotions and maintain or regain control of their behaviour. This is the aim of de-escalation, a collective term for a range of verbal and non-verbal techniques designed to defuse anger and divert aggression.[22] De-escalation is perhaps the most widely used non-pharmacological and non-restrictive approach when dealing with the threat of aggression, and is recommended as a first-line intervention.[20]

De-escalation is accepted as an important strategy to prevent aggression across a range of care settings.[22] However, there is no widely agreed-upon definition and no 'gold standard' for how de-escalation should be conducted.[27] Recently, Hallett and Dickens sought to clarify the concept of de-escalation in healthcare settings.[20] Five attribute themes were derived from thematic analysis of 79 studies: *communication, self-regulation, assessment, actions,* and *safety.* Multiple components (including skills, knowledge, and personal features) were identified for each of these themes.

A consideration of how the GAM applies to older adults may help to broaden our understanding of what de-escalation skills may be particularly useful among this demographic. Deciding against aggressive behaviour involves reappraising any automatic aggressive tendencies or decisions.[18] However, many older adults, particularly those with impaired executive function, compromised impulse control, disinhibition, or disorganised thinking, may find it difficult to engage in these reappraisal processes.[19] Providing residents with information about the situation, making intentions clear, using simple words and phrases, allowing residents ample time to consider information and respond, helping residents to consider aggression-incongruent interpretations of the situation, reminding residents of their values, and being clear about potential consequences of aggression may all be useful.

Validate residents' concerns

De-escalation may be aided when staff validate residents' concerns, seeking to communicate that a resident's emotional response is normal or understandable given their personal experience.[28] Validation has been shown to decrease negative affect during angry situations.[29,30] Validating negative emotional states has been shown to reduce the likelihood of aggressive behaviours among adults who have difficulty regulating their emotions.[31] This approach is formalised in *Validation Therapy* and *Integrative Validation Therapy*,[32,33] but may be used informally when aggression is imminent.

Avoid triggers for escalation

Aggressive behaviour in older adults is commonly triggered by routine caregiving, such as when staff initiate personal care tasks or enter a resident's personal space.[34] While these actions are largely necessary for resident wellbeing, the approach taken by staff when completing such tasks can influence whether escalation occurs. Aggression appear to be less common when staff have adequate time to complete personal care tasks,[35] use person-centred techniques,[36] and show regard for patient autonomy.[37] It may be that if an older person is in an elevated risk state that some of these tasks can be briefly delayed, until risk subsides.

IDENTIFY AND ADDRESS SITUATIONAL TRIGGERS

Situational factors have a marked impact on aggressive behaviour. Residents are exposed to a range of stressors and it is useful for staff to proactively identify and address situational factors that have the potential to frustrate, confuse, or frighten.

The physical environment

Adapting the physical environment to suit the resident may reduce agitation.[38,39] However, adapting the environment is also likely to serve as a useful secondary preventative strategy when risk of aggression is imminent. While this depends on the individual resident, a small number of potential changes have been identified, including: decreasing environmental stimulation (e.g., excess noise, bright lighting, offensive smells); increasing natural light and fresh air; and ensuring that the temperature of the room is comfortable.[40] While there is no experimental evidence for the degree to which making such changes may be effective, we know from the adult aggression literature that hot temperatures, loud noises, and unpleasant odours increase the likelihood of aggression.[41]

Interpersonal interactions

Interpersonal 'provocation' has been identified as one of the most important single causes of aggression.[18] Provocation may be experienced during interactions with staff, co-residents, or visitors, as well as the presence of unfamiliar individuals, a sense of overcrowding, or a perceived lack of privacy.[7,34] Identifying and addressing sources of interpersonal provocation may help to avoid situations that trigger aggression.

Unmet needs

Many older adults with dementia experience impairments in both communication and capacity, often resulting in unmet needs.[42] Resolving unmet needs is thought to play a crucial role in managing BPSD. Several common unmet needs have been identified.[42] First, the resident may have unmet physiological needs, including hunger, thirst, need to use the toilet, wet/soiled undergarments, fatigue, or skin irritation.[39] Second, the resident may have acute medical issues that need attention, such as delirium, infections, metabolic conditions, or CNS insults.[43] Third, the resident may be in pain or discomfort.[44] Fourth, the resident may be lonely.[42] Finally, the resident may be bored and/or lack meaningful activity.[45]

PROVIDE AN IMMEDIATE THERAPEUTIC INTERVENTION

Introduction

Once staff have utilised de-escalation and addressed situational triggers and/or unmet needs, residents should be engaged in interventions that are therapeutic. Despite limited empirical evidence, it is widely accepted that non-pharmacological approaches to managing imminent aggression should be implemented, particularly given that many of these interventions are low-cost and relatively easy to implement, with no evidence of adverse effects.[13,38] Therapeutic interventions may be useful during times of imminent aggression if they: distract from situational triggers; meet unmet needs (such as by promoting a sense of autonomy, meaning, or purpose; or fostering connection between the resident and others); increase positive affect and/or decrease negative affect; reduce arousal in a resident who is highly aroused; or give the resident time to engage in reappraisal processes.

Activities

There is evidence that engaging residents in meaningful and pleasurable activities helps to reduce the likelihood of aggression both on a day-to-day basis and when residents are becoming agitated. A recent Cochrane review found low-certainty evidence that offering older adults in community settings personally tailored activities may reduce challenging behaviours.[46] This is consistent with a previous systematic review which found engagement in activities, such as gardening or cooking classes, tended to reduce emergent (new-onset) agitation among older adults with dementia in residential facilities.[47] However, in this review, individualising activities did not appear to strengthen these effects, suggesting that the provision of general activities to residents is sufficient to reduce agitation. In these reviews, activities were found to be primarily beneficial for reducing the likelihood of aggression over the short-term, suggesting they may be particularly useful during periods when aggression is imminent.

Sensory Interventions

A review of 13 studies of sensory interventions in older adults with dementia found that these interventions generally improved agitation during the time the intervention took place.[47] The interventions with the most empirical support for the immediate or short-term reduction of agitated behaviour are massage and touch interventions,[48,49] as well as formalised and informal music therapy.[8,47,50]

Social contact

Providing residents with social contact, whether real or simulated, is thought to aid in the prevention of agitated behaviours.[51] For example, Cohen-Mansfield and Werner found that one-to-one social interaction was effective in managing verbally disruptive behaviours.[52] *Simulated Presence Therapy* (SPT) may be a useful form of simulating social contact in the absence of other opportunities. In this therapy, audio-visual recordings or personal message cards prepared by family members are provided to older adults with dementia.[53] A Cochrane review noted very low quality evidence that SPT reduced physical and verbal agitation.[54] However, there are again likely to be few risks associated with including this as an intervention option.

Reminiscence Therapy

Reminiscence Therapy (RT) involves discussing memories and past experiences, sometimes using tangible prompts such as photographs or historical materials.[55] A recent Cochrane review concluded that the effects of RT were inconsistent, differing considerably across settings and modalities.[56] While RT is typically a formalised therapy, there are likely to be few risks associated with an adapted form of RT for use when aggression is imminent.

CONSIDER MEDICATION

It is frequently recommended that nonpharmacological approaches are implemented prior to pharmacological approaches when managing aggression in aged care facilities.2,43 While anti-psychotic medications have been shown to have modest efficacy in reducing aggressive behaviour, the risks of adverse events (such as stroke, upper respiratory infections, extrapyramidal symptoms, and mortality) may outweigh the benefits, particularly

when used regularly.[57] Pharmacological approaches to managing aggression can also result in poorer quality of life for residents,[13] and polypharmacy may itself contribute to aggression.[43] Should aggressive behaviour persist, recur, be severe enough to cause significant suffering and distress to the resident or other residents, or cause significant interference with the delivery of care, then some authors have proposed that medications may be considered.[3,4,39]

ASSESSMENT AND PLANNING

The protocol proposed here sets out a series of interventions for staff to consider when a risk of imminent aggression has been identified. It is possible to individualise staff responses, such as by identifying certain triggers that are particularly relevant to a resident, or by prioritising interventions that have previously de-escalated a resident. Tailoring the protocol to the individual resident through an assessment and planning process may increase its effectiveness, particularly considering the lack of existing empirical evidence for any one specific intervention. This approach is consistent with the growing body of evidence that person-centred approaches – those that recognise the individuality of the client in relation to the attitudes and care practices that surround them – improve staff behaviour,[58] increase quality of life,[59] and, importantly, help to minimise aggressive behaviours in aged care facilities.[60]

DISCUSSION

Older adults often have complicated and compromised mental and physical health. Some people in care will have impaired cognitive functioning. Their psychosocial functioning may be compromised, and their living situation may feel unfamiliar and complicated. It is no doubt difficult for staff to balance the myriad risk factors for aggressive behaviour whilst trying to provide optimal care in the least restrictive manner. This paper represents the first step in an effort to synthesise the existing literature into a practical protocol that can be applied by staff in aged care facilities. It is preliminary in nature and is intended to be further developed through theoretical critique, expert opinion, consumer feedback, and empirical evaluation. Fundamentally, the model is based on the premise that risk of imminent aggression can be measured, that risk is variable, and that interventions should be provided based upon the level of risk, with more intrusive interventions reserved for those occasions when risk is elevated and the likelihood of harm is serious. Research in the mental health field has shown that systematic risk assessment using brief valid instruments, when linked with an aggression prevention protocol, can lessen the likelihood of aggressive behaviour and reduce reliance on restrictive interventions.[10,61]

More broadly, further research targeting the following areas would ultimately benefit the ability of staff to intervene in a preventative manner when an imminent risk of aggression has been identified. First, developing and validating a daily monitoring tool that would allow staff to identify when aggression is imminent and therefore when to utilise preventative interventions. We note two instruments have been developed for inpatient mental health services, the BVC and the DASA. These measures are similar, both have good predictive validity and both have been endorsed for use in mental health services.[22] In an earlier study we critiqued the BVC and DASA and made suggestions for how these measures might be modified to incorporate risk factors relevant to aggression in older adults in residential care settings.[19] Second, continuing to build a methodologically sound body of evidence to support the use of specific primary and secondary preventative interventions. Third, understanding whether the causes and processes underlying aggressive behaviour by older adults with dementia differ from those without dementia and, therefore, whether different interventions are required. Fourth, determining whether preventative interventions are equally effective for different groups within this population (e.g. according to gender, level of functional impairment, or level of cognitive impairment).

CONCLUSION

A perception amongst care staff that aggression is inevitable, the absence of validated tools to assess risk for imminent aggression, and limitations in the extant evidence base, can render the prevention of aggression within aged care facilities a daunting task. In the absence of clear guidelines there is a risk that aged care staff will rely on restrictive interventions and these can have adverse short- and long-term consequences. The development of an aggression prevention protocol for use within aged care facilities is a complex task, hindered by a lack of consistent empirical evidence combined with a relatively under-developed understanding of the causes and processes that underlie aggressive behaviour in older adults. However, within the mental health field structured risk assessment instruments, used systematically and when linked to an aggression prevention protocol have been shown to reduce aggression and limit reliance on restrictive practices. The methods and principles that provided the foundation for these initiatives are offered here for consideration by staff working with older adults in residential care settings.

Despite the inherent difficulties, developing and implementing a structured approach to identifying and responding to the risk of imminent aggression could assist staff to engage consistently and effectively when aggression is imminent, increase staff confidence in complex situations, improve training, allow scant resources to be prioritised effectively, promote a workplace culture that does not dismiss aggression as inevitable, and ultimately provide a safe workplace for staff and a high level of care and protection to other residents.

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