

health

Reducing restrictive interventions

Literature review and document analysis

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Researcher: Dr Cadeyrn Gaskin

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Introduction

The aim of this literature review and document analysis is to provide an overview of literature in relation to the practice of restrictive interventions in Australian and international healthcare settings.

The literature review has been organised into the following sections:

- literature in relation to the reduction or elimination of seclusion and restraint. This section describes recent initiatives within mental health services, emergency departments and specific to special populations
- literature in relation to the aetiology of aggression. This section includes the model of aggression and focuses on mental health, emergency departments and acute (non-psychiatric) settings, as well as aggression in special populations
- literature in relation to preventing and managing aggression, including specific strategies such as de-escalation, sensory approaches and recognising and responding to clinical deterioration
- an analysis of Victorian public mental health service guidelines and policies and a comparison with the Chief Psychiatrist's guideline for mechanical seclusion and restraint (Chief Psychiatrist, 2006, Chief Psychiatrist, 2011).

Review objectives

The purpose of this project was to review the literature on reducing and eliminating restrictive interventions. The review incorporated information on the aetiology of aggression and preventing and managing aggression. Strategies reviewed include de-escalation, limit setting, observation, sensory approaches, maintaining safe therapeutic environments, specialised teams, recognising and responding to clinical deterioration and pro re nata (PRN) medications. This project also involved an analysis of Victorian mental health service documents on seclusion and restraint.

Background to the review

Restrictive interventions such as seclusion and restraint are commonly used within Australia (Happell and Gaskin, 2011) and overseas (Dye et al., 2009, Raboch et al., 2010, Steinert et al., 2010, Swickhamer et al., 2013) healthcare settings (such as psychiatric inpatient units and emergency departments) to manage people with agitated or aggressive behaviours. It is acknowledged, however, that the use of restrictive interventions can have negative consequences. For people receiving mental healthcare, restrictive interventions can evoke feelings of distress, anxiety, neglect, anger fear, loneliness, humiliation, insecurity, powerlessness, mistreatment and punishment (El-Badri and Mellsop, 2008, Kontio et al., 2012, Roberts et al., 2009). For some, being subjected to restrictive interventions seems inhumane (El-Badri and Mellsop, 2008) and an infringement of their human rights (Mayers et al., 2010). Other people have reported that restrictive practices have exacerbated their psychiatric symptoms (El-Badri and Mellsop, 2008). Using restrictive interventions can also re-traumatise people with histories of childhood physical or sexual abuse (Hammer et al., 2011). Furthermore, the use of restrictive measures in emergency departments may impede the delivery of optimal care, because people who are physically restrained in these settings are less likely than those who are not restrained to attend prescribed outpatient follow-up mental health treatment (Currier et al., 2011). Equally, using safe rooms in emergency departments to provide safe and therapeutic environments can have the unintended consequence of making people feel punished at a time when they are feeling scared, alone and lacking social supports (Strike et al., 2008).

Consumers' negative feelings towards restrictive interventions are not universal, however. A small proportion express feeling secure in seclusion (El-Badri and Mellsop, 2008, Kontio et al., 2012). Although many staff identify the use of restrictive measures as tools to manage aggression and 'inappropriate behaviour' (Roberts et al., 2009), for others these interventions are associated with emotional distress, the suppression of unpleasant emotions, fear and a conflict between the requirement to maintain control

and professional values with respect to therapeutic relationships (Bigwood and Crowe, 2008, Moran et al., 2009). There are also considerable cost implications of staff involvement in conflict and containment (Flood et al., 2008). The potential negative outcomes of restrictive measures for consumers, staff and healthcare providers have increased international attention on ways in which such interventions may be reduced.

There have been two literature reviews on seclusion practices undertaken for the Victorian Government – in 2002 and five years later (Livingstone, 2007). This latter review informed the Creating Safety: Addressing Restraint and Seclusion Practices project, which was a joint initiative of the Victorian Quality Council, Victoria's Chief Psychiatrist, and the Chief Psychiatrist's Quality Assurance Committee (Department of Health, 2009). The revised review was commissioned due to international developments in seclusion practices that were not fully captured in the earlier report. Significantly, in the United States (US), an investigation by newspaper the *Hartford Courant* had drawn attention to 142 deaths in seclusion and restraint between 1988 and 1998 (Weiss et al., 1988), which prompted the US Health Care Financing Administration to set standards for seclusion and restraint in federally funded programs. The then Joint Commission on Accreditation of Healthcare Organizations (JCAHO) made the prevention, reduction, and elimination of these interventions a priority. Livingstone's review also makes reference to efforts by the Pennsylvania Department of Public Welfare to reduce the use of seclusion and restraint (Smith et al., 2005), which contributed momentum to the broader movement towards reducing restrictive practices.

The Creating Safety: Addressing Seclusion and Restraint Practices project has added to the mounting international evidence that the use of seclusion and restraint can be reduced (Department of Health, 2009). In Victorian adult inpatient services, successful outcomes were achieved through initiatives involving multiple factors including committed and supportive organisational and clinical leadership, involvement of multidisciplinary staff, staff education, enhancement of physical and therapeutic environments, seclusion and restraint monitoring and data analysis, active involvement of consumers as partners in care and using alternatives to seclusion and restraint. The project report also emphasised that 12 months was insufficient time to implement seclusion and restraint reduction plans, with the feedback from sites indicating that such plans needed three to five years to implement.

The literature review and document analysis reported here reflects the ongoing commitment to reducing restrictive practices in Victoria. Specifically, this project builds on the existing literature review on seclusion produced for the Victorian Quality Council and the Chief Psychiatrist's Quality Assurance Committee (Livingstone, 2007).

Method

The method for this project involved:

- literature reviews on (a) reducing and eliminating seclusion and restraint, (b) the aetiology of aggression and (c) preventing and managing aggression
- document analyses that included (a) a content analysis of Victorian mental health service policies, (b) a comparison of Victorian mental health service guidelines and procedure documents with the Victorian Chief Psychiatrist's guideline for mechanical seclusion and restraint.

Literature reviews

Reducing and eliminating seclusion and restraint

Reducing and eliminating seclusion and restraint in mental health services

A broad search of three electronic databases (CINAHL, MEDLINE Complete and PsycINFO) was conducted using the search terms *seclusion*, *restraint*, *mental* and *psychiatric*. These terms were combined in the following Boolean search: (*seclusion* OR *restraint*) AND (*mental* OR *psychiatric*). The search was limited to the year 2007 onwards, due to the availability of reviews published in this year in which previous studies are reviewed (Gaskin et al., 2007, Livingstone, 2007). The search was also limited to English-language papers published in peer-reviewed journals. With this search, 977 database entries were identified. For each entry, the title and abstract were read to determine the possible relevance of the content of the paper to this literature review. When the relevance was not clear from reading the title and abstract, full papers were obtained and read. Given the breadth of the search, many of the papers found were not relevant to the literature review (for example, review papers, editorials, studies reporting prevalence statistics for, or correlates of, seclusion and restraint). Of the 977 entries retrieved, 113 were deemed to have possible relevance to this literature review based on titles and abstracts. The full papers associated with these 113 database entries were obtained and read. Of these papers, 30 included the findings of initiatives to reduce or eliminate the use of restrictive interventions, and were included in the review. The remaining 83 papers were not included in this review.

Reducing and eliminating seclusion and restraint in emergency departments

A supplementary search to the one on reducing and eliminating seclusion and restraint in mental health services was undertaken. A search of three electronic databases (CINAHL, MEDLINE Complete, and PsycINFO) was conducted using the following Boolean search: (*seclusion* OR *restraint* OR *behavior assessment room*) AND (*emergency department* OR '*accident and emergency*' OR *emergency room* OR *casualty department*). The search was limited to peer-reviewed papers. The search returned 285 database entries, of which two were relevant to this review.

Reducing and eliminating seclusion and restraint in special populations

Additional searches were undertaken to identify seclusion and restraint reduction initiatives with specific populations, namely children and adolescents, older adults and people with disabilities.

- **Children and adolescents** – The findings of a recent systematic review in this area (De Hert et al., 2011) are reported.
- **Older adults** – The findings of a recent review on physical restraint reduction in dementia care (De Bellis et al., 2013) are discussed.
- **People with disabilities** – The findings of a systematic review and quantitative synthesis (Gaskin et al., 2013) being conducted concurrently with this report are reported. For this review, a search of four electronic databases (Academic Search Complete, CINAHL, MEDLINE and PsycINFO) was undertaken using the search terms *disab**, *mental retard**, *autism*, *restraint*, *restrict* and *seclusion*.

The search returned 7226 records, of which 11 met the inclusion criteria for the review. A further three papers were identified from the reference lists of included papers. In total, 14 papers were included in the systematic review.

Reducing and eliminating seclusion and restraint: international and domestic policy and positions

The Google search engine was used to search for international and Australian policies and position statements on seclusion, restraint and related topics. Additional searches were undertaken of the websites of organisations involved with healthcare, such as the American Psychiatric Association <www.psych.org>, National Institute for Health and Care Excellence (NICE) <www.nice.org.uk>, New South Wales (NSW) Health <www.health.nsw.gov.au>, National Association of State Mental Health Program Directors (NASMHPD) <www.nasmhpd.org>, Substance Abuse and Mental Health Services Administration (SAMHSA) <www.samhsa.gov>, The Joint Commission <www.jointcommission.org>, the Royal College of Psychiatrists <www.rcpsych.ac.uk>, The Royal Australian and New Zealand College of Psychiatrists (RANZCP) <www.ranzcp.org> and the World Health Organization (WHO) <www.who.int>.

Supplementary searches

Several supplementary searches were conducted in areas of literature that have the potential to inform efforts to reduce and eliminate the use of restrictive interventions on people experiencing mental health issues:

- the aetiology of aggression
- preventing and managing aggression
- de-escalation
- limit setting
- observation
- sensory approaches
- maintaining safe therapeutic environments
- specialised teams
- recognising and responding to clinical deterioration
- PRN medications.

Document analysis

Organisations use policies, standards, guidelines and procedures to direct and to guide the work of staff. These four types of documents are situated in a hierarchy and have different features (see Figure 1).

Victorian public mental health services were invited to provide documents for review that may be pertinent to the subject matter of this review. In total, 133 documents were received from 17 organisations. These documents were policies (n = 27), guidelines (n = 26), procedures (n = 51) and other documents, for example, forms or presentations (n = 30). No standards were submitted for review.

Policies

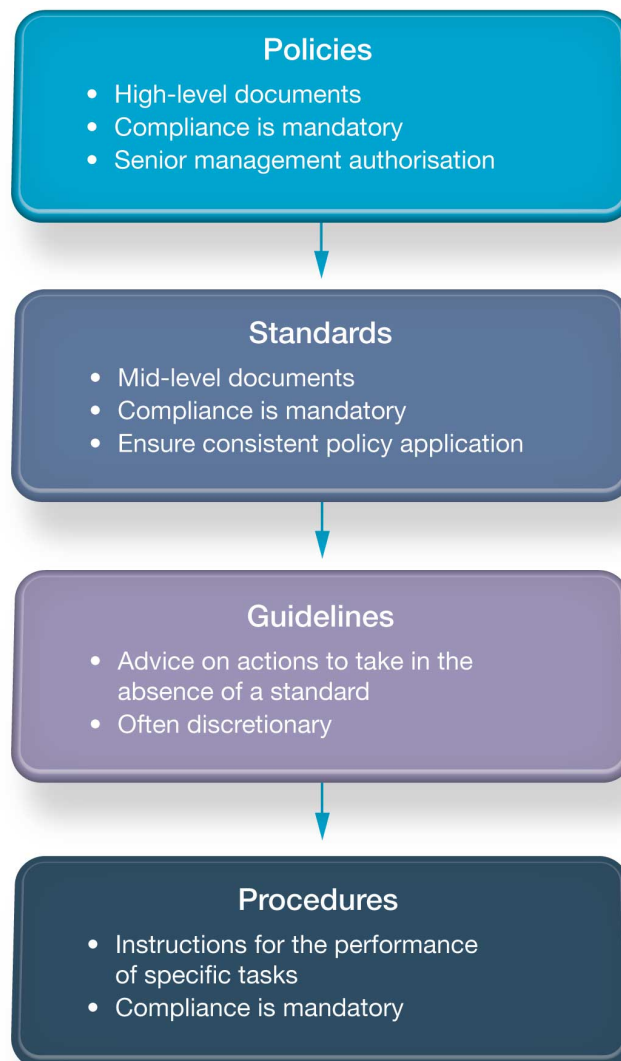
Of the 27 policies provided, 21 had direct relevance to the review. The policies excluded from the review did not have content that was of direct relevance to restrictive interventions (for example, policies about general safety and observations). Thematic analysis was performed on the contents of the included policies.

Because many of the organisations did not have (or did not provide) policies on restrictive interventions, a secondary analysis of the statements of purpose (or equivalent), where available, in guidelines and procedure documents was undertaken. This analysis involved 15 guidelines and 21 procedures. The contents of the statements were thematically analysed.

Guidelines and procedures

Compared with policy statements, guidelines and procedure documents are lengthy and idiosyncratic in places, which would make content analysis laborious and possibly deliver mixed findings. For this analysis, the contents of the 17 mental health services' guidelines and procedure documents were instead compared with the contents of the Victorian Chief Psychiatrist's guideline for mechanical seclusion and restraint (Chief Psychiatrist, 2006, Chief Psychiatrist, 2011). Key content areas from the Chief Psychiatrist's guideline were extracted and listed. Pertinent guidelines and procedures from the mental health services were then analysed to determine the presence or absence of these content areas in the documents.

Figure 1: Hierarchy and features of policies, standards, guidelines and procedures



Summary of main findings

Reducing and eliminating seclusion and restraint

- Restrictive practices can be reduced and often eliminated in healthcare services.
- The weight of evidence that seclusion and restraint can be reduced and eliminated comes from reports of these outcomes being achieved in mental health services.
- There is also evidence of seclusion and restraint being reduced in emergency departments and disability services.
- From the existing literature, a model incorporating the features of effective seclusion and restraint reduction initiatives has been developed. This model recognises
 - the potential influence of the legislature, government policy and support, and other external parties (for example, consumers and consumer advocates) on the practices within healthcare providers
 - that a large number of initiatives have been attributed as being features of successful restrictive intervention reduction initiatives (for example, psychosocial models of care, treatment plans and assessment tools)
 - that these initiatives were put into place in organisations using cycles of (a) preparation, (b) organising structures and staff, (c) facilitating implementation and (d) monitoring and feedback.
- Because healthcare providers tended to use several initiatives concurrently and multiple methods of implementation to reduce restrictive interventions, determining which features are more important than others is impossible at this time.
 - Features most important to one healthcare provider may not be as important to another organisation.
 - Because no two healthcare providers are alike, restrictive intervention reduction initiatives need to be tailored for the circumstances present in each organisation.
 - Strong and persistent leadership, however, appears to be one feature consistent across all healthcare providers that have successfully reduced the use of restrictive practices.
- Consumer-led research has shown that
 - introducing consumers' voices into discussions about reducing restrictive interventions can be a powerful catalyst for change
 - reducing the use of restrictive practices calls for the negotiation of changes to attitudes and practices
 - challenge and discomfort may be necessary precursors of organisational change.
- Policy documents and position statements from government departments, professional practice bodies, consumer and carer advocacy groups and healthcare providers from the United Kingdom (UK), US and Australia echo the sentiments within the United Nation's *Principles for the protection of persons with mental illness and for the improvement of mental health care*.
- Some of the more common policy themes are that seclusion and restraint should be used
 - as measures of last resort
 - in ways that show decency, humanity, honesty and respect for individual rights
 - with appropriate recording, monitoring and reviewing procedures
 - for the least amount of time possible
 - to minimise risk to consumers, staff, relatives, carers and visitors
 - in compliance with relevant legislation and court rulings.
- The policy documents and position statements vary in the strength of their opposition to restrictive practices. Some documents contain strategies for seclusion and restraint reduction.

Aetiology of aggression

- Aggression is a complex area of human behaviour. One way of understanding this behaviour is the General Aggression Model, which has the following main components
 - the person and situation inputs
 - present internal states (including brain activity)
 - outcomes of appraisal and decision-making processes.
- In studies conducted within psychiatric inpatient units, the most frequently reported antecedents to aggression included limiting consumer freedoms, medication administration, restraint, care provision and patient-to-patient provocation.
 - Often, there is no clear cause of aggression.
 - People who are aggressive tend to be those with histories of (a) previous violence, (b) involuntary admission and (c) illicit drug use.
- In studies within emergency settings, common characteristics of aggressive episodes include: male sex, aged between 16 and 25, presentation between midnight and 7.00 am, the presence of certain diseases (for example, diabetes, epilepsy, respiratory disease and head injuries), consumption of alcohol, involvement in aggressive episodes prior to presentation, setting characteristics (long waiting times and overcrowded waiting rooms) and staff characteristics (being young, small, female and/or inexperienced).
- Limited research has been conducted on the aetiology of aggression in acute (non-psychiatric) settings. Factors that may predispose people to aggression include: head injuries, hypoxia, metabolic disorders, endocrine disorders, seizures, psychiatric disorders, prescribed medication side effects, intoxication, drug overdose, drug and alcohol withdrawal and age-related disorders (for example, dementia).

Preventing and managing aggression

- Evidence from the general literature shows that aggression in mental health services can be reduced using systematic changes that often involve input by governments, organisations and wards.
 - In wards, nursing behaviours conducive to producing safe environments include being aware of consumer behaviours, attending to particular situations and the flow of activities around the ward, caring for people and connecting with them.
- Although there is limited evidence from emergency and acute care settings, it can be suggested that multifaceted implementation approaches, similar to those found to be effective in mental health services, could also produce desired outcomes in these other settings.
- Within the literature on de-escalation seven themes have been identified. The first three themes relate to staff skills: characteristics of effective de-escalators (for example, confidence, coherence and genuine concern), maintaining personal control, and verbal and non-verbal skills. The next four themes pertain to the process of intervening: engaging with the patient, deciding when to intervene, ensuring safe conditions for de-escalation and strategies for de-escalation.
- Depending on how it is used, limit setting may be effective for preventing and managing aggression.
- Observation is potentially a powerful strategy for preventing and managing aggression.
- Although the evidence is mixed, findings from studies suggest that sensory approaches are effective in reducing distress, as well as improving several other psychiatric symptoms. The effect of sensory approaches on other pertinent outcomes (for example, aggression or episodes of seclusion) is inconclusive.

- Three themes seem central to creating a safe, therapeutic milieu:
 - learning to respect consumers as people
 - the use of intersubjective communication (that is, body language)
 - the ability to be fully present in the situation.
- The use of specialised teams to manage behavioural issues is an innovative way of managing aggression. Limited evidence on their effectiveness, however, appears in the literature. Also, it is uncertain whether the availability of these teams may result in other staff not developing their own skills in this area.
- Clinical deterioration causes some people to become aggressive. The Australian Commission on Safety and Quality in Health Care (ACSQHC) has produced a *National consensus statement* on recognising and responding to deterioration. Identifying and managing clinical deterioration has the potential to reduce the incidence of aggression.
- Although PRN medications are frequently used, this practice is not evidence based and has the potential to do harm.

Victorian public mental health service policies, guidelines and procedures

- Victorian public mental health services use a broad range of approaches to direct and guide staff behaviour with respect to the use of restrictive interventions.
- Prominent themes within policy documents include
 - using restrictive interventions as measures of last resort
 - maintaining the dignity of consumers
 - observing the rights of consumers
 - meeting legislative requirements.
- The guideline and procedure documents of Victorian public mental health services are highly consistent with the Chief Psychiatrist's (2006) guideline on mechanical restraint.
- Of the 10 mental health services that provided guidelines and procedure documents on seclusion, the documents of six organisations cited and referenced the Chief Psychiatrist's (2011) guideline on seclusion, whereas the other four documents referred to earlier versions of the guideline.
- All documents on seclusion contained major elements of the Chief Psychiatrist's (2011) guideline, for example, that seclusion should be undertaken only when other, less restrictive interventions have first been tried or considered and excluded as inappropriate or unsuitable. However, the documents were highly variable in terms of the amount of detail they contained.

Findings

Literature review: reducing and eliminating seclusion and restraint

Introduction

The Livingstone (2007) review suggested that seclusion could be reduced, and described a broad array of factors that could lead to this outcome being achieved. Published in the same year as Livingstone's report, Gaskin, Elsom, and Happell (2007) provided a detailed review of the literature on reducing the use of seclusion in psychiatric facilities. This latter review serves as a basis for this section of the present report. The main findings of the Gaskin et al. review were that:

- reducing (and often eliminating) seclusion is an achievable outcome
- catalysts for the development and implementation of interventions were pressures to reduce seclusion in either the internal or external environments
- the responses of psychiatric facilities to reducing seclusion were diverse, reflecting the unique challenges within, and heterogeneity of, these organisations.

Of the 16 papers included in the Gaskin et al. (2007) review, nine reported reductions in restraint *and* seclusion (see supplementary data file on the *British Journal of Psychiatry* website). Therefore, although the review was focused on seclusion, the inference could be made that features of the interventions that were successful in reducing seclusion practices could equally be applied to reducing restraint. In the review, 17 features of interventions were identified that may have contributed to the reduction in seclusion and restraint demonstrated within the psychiatric facilities (see Appendix A). To provide a framework for these features, they have been categorised as being external to organisations or internal at the facility or ward level. This system of classification, however, does not presuppose that any feature is positioned entirely within one level. Rather, collaboration among staff within two or more levels may be required to implement features to full effect.

Reducing and eliminating seclusion and restraint in mental health services: recent evidence

Consistent with the Gaskin et al. (2007) review, recent evidence suggests that the use of restrictive interventions can be reduced and often eliminated through the implementation of multiple initiatives designed to produce changes in the care of mental health consumers. To synthesise this evidence, a model has been developed (see Figure 2). The significant features of this model are presented in this section of the review. The first two features of the model (legislative and policy frameworks, government support and external influences) represent major influences from the external environment on organisations' efforts to reduce the use of restrictive interventions. In the model, the healthcare provider is placed within the context of the regulatory framework, and the *external influences* are positioned such that they affect both governments and healthcare providers to varying degrees. The third feature of the model (restrictive intervention reduction initiatives) represents changes to practice that organisations have implemented with the intention of reducing the use of restrictive interventions. The final four features of the model are concerned with the implementation of initiatives to reduce the use of restrictive interventions within healthcare providers (preparation, organising structures and staff, facilitating implementation and monitoring and feedback).

Legislative and policy frameworks and government support

Policy development and provision of government support are features of successful initiatives to reduce restrictive interventions. The evidence suggests, however, that changes to legislation alone may be ineffective in producing desired reductions in the use of restrictive interventions (Keski-Valkama et al., 2007). Successful interventions have included the following initiatives:

- **Policies and regulations** – changing policies and regulations to tighten controls on seclusion and restraint use (Gaskin et al., 2007, Sees, 2009). In one example, the former Health Care Financing Administration developed regulations that reduced the permissible uses of seclusion and restraint, mandated the public reporting of deaths and serious injuries from these interventions, and required face-to-face evaluations of patients by physicians or other licensed independent practitioners within the first hour of most of these restrictive practices (Sees, 2009).
- **Support to healthcare providers** – governments providing support to healthcare providers to promote the reduction of restrictive interventions (for example, promoting interorganisational support for organisations undertaking culture change and restraint reduction initiatives; Gaskin et al., 2007). Additional examples of government support are provided in Appendix A.

External influences

Aside from the government sector, other individuals and organisations have been described as contributing to restraint and seclusion reduction efforts:

- **Consumers and consumer advocates** – healthcare services have highlighted the need to involve both consumers not currently receiving care and consumer advocates in efforts to reduce restrictive interventions (Azeem et al., 2011, Gaskin et al., 2007). On occasion, some of the impetus for practice change can come from community advocates (Gaskin et al., 2007).
- **Families, carers, and support people** – some healthcare organisations have identified that families, carers and support people have a significant role in reducing restrictive practices (Fralick, 2007). For example, staff in one organisation enhanced their debriefing practices through having family come into the facility on the same day as restraint occurred to discuss contributing factors (for example, crises, medication or family participation) and to develop action plans (Fralick, 2007).
- **External consultants** – some organisations have engaged the services of external consultants to identify the root causes of ward issues and suggest possible solutions (Gaskin et al., 2007) and to provide clinical training and case consultation (Sclafani et al., 2008). In some circumstances, the focus of the external consultants was on people with dual diagnoses (for example, developmental disabilities and mental illness; Sclafani et al., 2008).
- **Training providers** – some healthcare providers have sent staff to receive training on how to reduce restrictive interventions. In one example, two members of the team attended training by the National Executive Training Institute (in the US) on reducing seclusion and restraint (Barton et al., 2009). The three-day course focused on the physical and emotional risks of restraint use, trauma theory, what has worked in other mental health services and what to expect when implementing reduction plans (for example, staff fear and resistance).

Restrictive intervention reduction initiatives

A number of initiatives have been employed in efforts to reduce the use of restrictive interventions:

- **Psychosocial models of care** – adopting new therapeutic frameworks for practice, including a recovery focus (Ashcraft and Anthony, 2008, Ashcraft et al., 2012, Georgieva et al., 2010, Qurashi et al., 2010), trauma-informed care (Borckardt et al., 2007), psychiatric rehabilitation (a holistic, multimodal, psychologically oriented approach to the treatment of severe mental illness; Tarasenko et al., 2012), the structural empowerment model (Chandler, 2012), cognitive behavioural therapy with mentalisation and attachment theory (Georgieva et al., 2010) and dialectical behaviour therapy (Berntsen et al., 2011). When working with children and adolescents, collaborative problem-solving (Gaskin et al., 2007, Martin et al., 2008), child-centred and family-centred care (Gaskin et al., 2007) and comprehensive behavioural management (Dean et al., 2007) have been used.
- **Treatment plans** – concentrating on the improvement of consumers' treatment plans. Changes to the development of treatment plans were made in the following areas: (a) greater consumer involvement in treatment planning (Borckardt et al., 2007, Noorthoorn et al., 2008, Qurashi et al., 2010) and in identifying behaviours that may precede aggression (Noorthoorn et al., 2008, Qurashi et al., 2010), (b) individualised plans, (c) facilitating the completion of psychiatric advance directives (Swanson et

al., 2008), (d) increased multidisciplinary team input (Noorthoorn et al., 2008, Sivakumaran et al., 2011) and (e) establishing a facility-wide behavioural consultation team to have input into treatment plans from a behavioural perspective (Gaskin et al., 2007). For children and adolescents, treatment plans have been modified so they did not extend beyond the patients' skill level and create frustration, that could then escalate (Fralick, 2007).

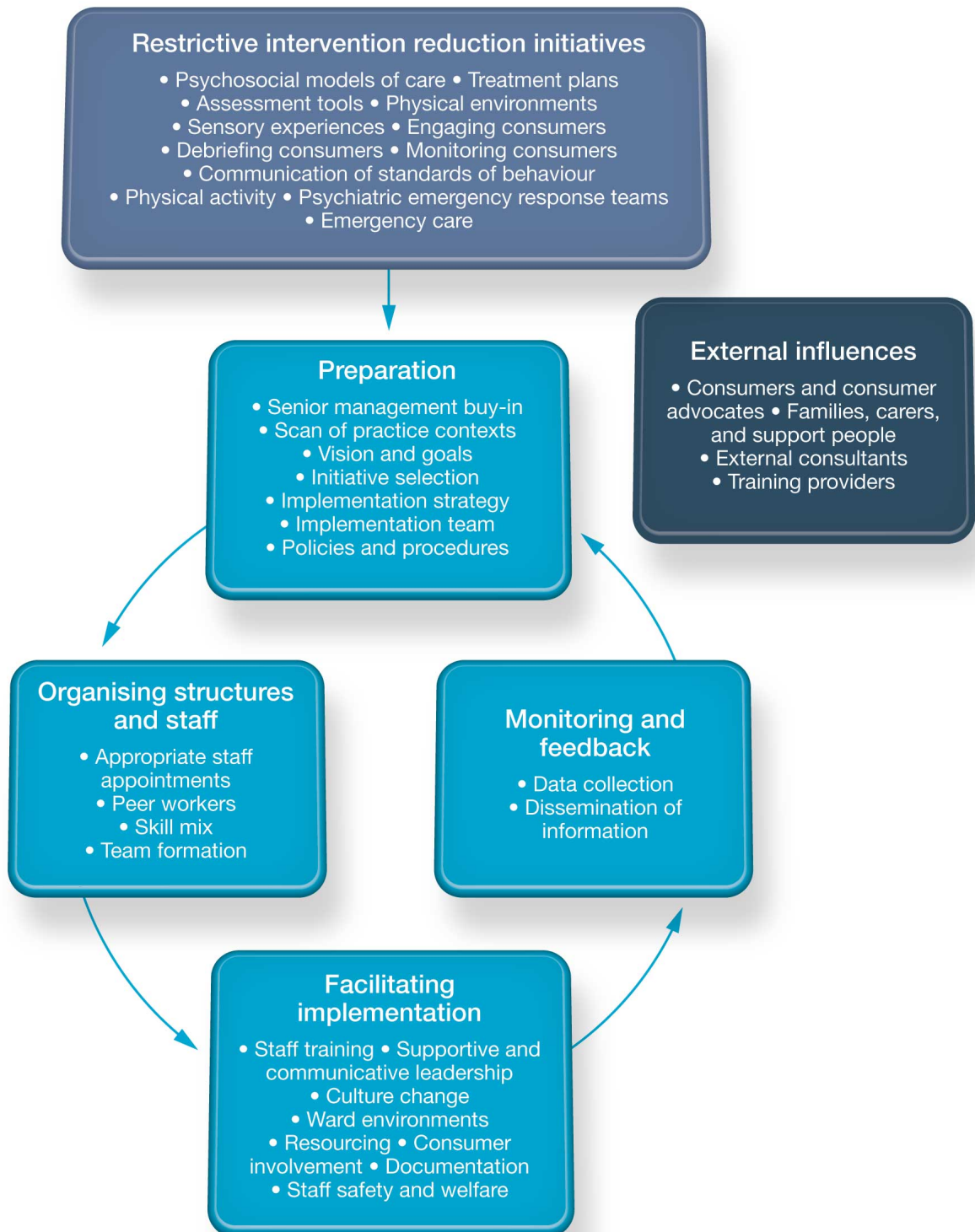
- **Assessment tools** – using assessment tools to facilitate the identification of stress triggers, early signs of distress and calming strategies (Azeem et al., 2011, Cummings et al., 2010, Lee et al., 2010). Using these tools, information can be gathered from consumers, their families and community nurses, and used to inform discussions during multidisciplinary meetings (van de Sande et al., 2011) and plans aimed at the early detection of behaviour preceding aggression (Noorthoorn et al., 2008). Assessment tools have been used at different times during care including during admission (Noorthoorn et al., 2008), daily and weekly (van de Sande et al., 2011).
- **Physical environments** – changing the physical environments of healthcare providers to enhance their therapeutic value (Borckardt et al., 2007, Gaskin et al., 2007). One healthcare provider, for example, had single rooms for each consumer and recreational facilities (Georgieva et al., 2010). Another provider changed inpatient environments through painting walls with warm colours and adding decorative throw rugs and plants to the units (Borckardt et al., 2007). Several organisations installed (or converted their seclusion rooms into) comfort rooms (for example, Barton et al., 2009, Sclafani et al., 2008, Sivak, 2012) and offered them as healthy, therapeutic, supportive and safe environments (Cummings et al., 2010).
- **Sensory experiences** – making sensory experiences available to people to reduce agitation (Gaskin et al., 2007, Lee et al., 2010). Examples include making aromatherapy available on request when a person feels agitated (Gaskin et al., 2007) and the purchase and dissemination of sensory resources (for example, optic lamps and digital music players; Lee et al., 2010).
- **Engaging consumers** – staff engaging with people (Chandler, 2012, Cummings et al., 2010) and increased collaboration between clinical teams and people receiving mental healthcare (Qurashi et al., 2010), including more frequent conversations about their care needs (Gaskin et al., 2007).
- **Debriefing consumers** – paying greater attention to debriefing people following the use of restrictive practices (for example, Ashcraft and Anthony, 2008, Azeem et al., 2011, Fralick, 2007). In some organisations, families were involved in debriefings following the use of restraint (Fralick, 2007).
- **Monitoring consumers** – increasing the extent to which staff observe people within therapeutic environments (Gaskin et al., 2007, Georgieva et al., 2010). In some organisations, enhanced monitoring means that staff have an increased physical presence with consumers (Georgieva et al., 2010), whereas in other organisations monitoring may be conducted with the use of cameras (Gaskin et al., 2007).
- **Communicating standards of behaviour** – communicating clear boundaries and limitations with respect to 'acting-out' behaviour (Noorthoorn et al., 2008). Bernsten et al. (2001) suggests services should acknowledge people by supporting greater freedom and more access to activities for 'behaving safely and appropriately'.
- **Physical activity** – facilitating physical activity sessions for people. In one Australian child and adolescent inpatient unit, for example, everyone except those who were the most unwell participated in a structured exercise program five times per week (Berntsen et al., 2011).
- **Psychiatric emergency response teams** – forming specialist teams trained to defuse crisis situations (Gaskin et al., 2007).
- **Emergency care** – collocation of a psychiatric assessment and planning unit (PAPU) with the acute adult mental health inpatient unit to ensure that The Royal Melbourne Hospital Emergency Department (RMH ED) had access to acute psychiatric beds when necessary (Browne et al., 2011).

Figure 2: Features of effective restraint–seclusion reduction initiatives

Legislative and policy frameworks and government support

Policies and regulations • Support to healthcare providers

Healthcare provider



Preparation

Preparation involves planning for the successful implementation of initiatives designed to reduce the use of restrictive interventions in healthcare organisations. The different aspects of preparation that are evident in the literature include:

- **Senior management engagement** – strong support from senior staff within healthcare providers for efforts to reduce the use of restrictive interventions. The existence of high-level managerial support and prioritisation of seclusion and restraint reduction initiatives has been mentioned in several papers (for example, Ashcraft and Anthony, 2008, Barton et al., 2009).
- **Scan of practice contexts** – establishing a working knowledge of current practices with respect to the use of restrictive practices within the organisation, and the factors that assist in maintaining these practices. Weaknesses within clinical environments have been established with staff surveys, baseline data on the use of seclusion, interviews with staff and consumers and observations of crisis events (Gaskin et al., 2007). Within one hospital unit, for example, a clinical review of critical cases (that is, multi-incident patients) was conducted with the intent of identifying ways of reducing restrictive practices (Sclafani et al., 2008).
- **Vision and goals** – creating a vision and developing associated goals for the reduction of restrictive interventions, and then articulating the vision and goals to other staff (Ashcraft and Anthony, 2008, Azeem et al., 2011). In the inpatient units of one mental health service, for example, goals were set to eliminate the use of seclusion and restraint in four months and to halve the number of assaults and self-injurious behaviours in the hospital (Sivak, 2012).
- **Initiative selection** – choosing the mix of initiatives to reduce the use of restrictive interventions that will most likely contribute to the achievement of the vision (Gaskin et al., 2007). At one psychiatric inpatient service, the public health prevention model influenced the selection of initiatives, with attention being paid to primary prevention (developing treatment environments that reduce conflict and enable early identification and treatment planning for high-risk patients), secondary prevention (interventions to minimise or resolve conflict distress symptoms, such as personal safety plans, patient support sheets and comfort carts) and tertiary prevention (minimising the negative impacts of seclusion and restraint; Lewis et al., 2009).
- **Implementation strategy** – development of an action plan to reduce the use of restrictive measures (Barton et al., 2009). Some healthcare providers used the rapid cycle improvement model to guide their organisational change initiatives (Fralick, 2007, Prescott et al., 2007).
- **Implementation team** – formation of a team involving staff from different disciplines and levels in the organisation to oversee the implementation of the initiatives (Barton et al., 2009, Gaskin et al., 2007, Qurashi et al., 2010). In one high-security hospital a multidisciplinary group was formed to enhance the organisation's clinical leadership, and was charged with the task of monitoring and reducing seclusion (Qurashi et al., 2010).
- **Policies and procedures** – updating and creating policies and procedures to be consistent with goals of reducing restrictive interventions (Ashcraft and Anthony, 2008, Ashcraft et al., 2012, Hellerstein et al., 2007, Sees, 2009). For example, policies have focused on reducing the amount of time that people can spend in seclusion or restraint (Hellerstein et al., 2007), making it procedurally more difficult for staff to use restrictive interventions (Ashcraft et al., 2012), stabilisation, recovery, and the use of therapeutic activities (for example, cognitive behavioural therapy with mentalisation and attachment theory; Georgieva et al., 2010), avoiding the use of force (Ashcraft et al., 2012) and stipulating the conditions under which seclusion and restraint may be used (Sees, 2009).

Organising structures and staff

Organising structures and staff refers to human resource aspects of implementing change. These aspects include:

- **Appropriate staff appointments** – recruiting staff with experience of initiatives to reduce restrictive intervention or who are able to work comfortably within and advance the vision that senior management have set (Berntsen et al., 2011, Gaskin et al., 2007). In one healthcare provider, the

appointment of new staff (for example, nurse unit managers) appeared influential in producing positive outcomes in reducing restrictive interventions (Berntsen et al., 2011). In one organisation, only people who could work within a recovery framework were hired (Ashcraft et al., 2012).

- **Peer workers** – peer workers can make a valuable contribution to the care of consumers. In one organisation, for example, peer workers were employed to create a blended workforce with over 50 per cent of staff being peer support specialists (Ashcraft et al., 2012).
- **Skill mix** – at ward level, ensuring there is an adequate skill mix to enable the changes to be successfully implemented and maintained over time (Gaskin et al., 2007, Georgieva et al., 2010).
- **Team formation** – the formation of short-term or permanent teams charged with implementing aspects of initiatives to reduce restrictive intervention use. In one psychiatric hospital, for example, an interdisciplinary and facility-wide team developed and implemented the use of a comfort room as an alternative to seclusion and restraint with input from consumers (Sivak, 2012). With respect to permanent teams, a restraint response team was formed in a psychiatric and chemical dependency treatment facility, for example, which activated following any instance of mechanical restraint (Prescott et al., 2007). This team included the medical director (or their assistant), a clinical supervisor and a nurse unit manager. Within 24 hours of a mechanical restraint event, the team was expected to meet with the person's attending physician, the nurse unit manager and the clinician working with the person. The main question was what could be done to prevent further restraint occurring.

Facilitating implementation

Facilitating implementation refers to activities performed within ward environments to put into operation the initiatives designed to reduce the use of restrictive interventions. These activities include:

- **Staff training** – developing curricula and providing staff with training to align their practices with those that are consistent with facilitating restraint reduction (Azeem et al., 2011, Barton et al., 2009, Gaskin et al., 2007). Psychosocial models and techniques that were the focus of staff training included a recovery focus (Ashcraft and Anthony, 2008), trauma-informed care (Borckardt et al., 2007, Chandler, 2012), person-centred approaches (Sclafani et al., 2008), collaborative problem-solving (Martin et al., 2008), neurocognitive approaches and psychosocial interventions (Qurashi et al., 2010), dialectical behaviour therapy (Berntsen et al., 2011) and negotiating with people instead of controlling their behaviour (Georgieva et al., 2010). Risk reduction topics that were the focus of training include identifying risk factors for seclusion and restraint use (Fralick, 2007, Hellerstein et al., 2007), prevention and early intervention (Dean et al., 2007), using consumer safety tools (Azeem et al., 2011, Lee et al., 2010), preventing aggression and dealing with conflict while restoring the relationship with the person (Noorthoorn et al., 2008), using sensory resources (Lee et al., 2010) and de-escalation (Qurashi et al., 2010). Some staff also received training in various debriefing techniques, improving consumers' roles in inpatient settings, using data to inform practice and leadership towards organisational change (Azeem et al., 2011). To supplement the training, some staff received individual job coaching (Noorthoorn et al., 2008) and weekly reinforcement of their training (Ashcraft et al., 2012).
- **Supportive and communicative leadership** – senior leaders having an active role in supporting staff to make changes to ward environments and consumer care (Chandler, 2012). Support from leadership appeared consistently in the literature as a component of initiatives to reduce restrictive practices (Sivakumaran et al., 2011). Some of this support was provided during regular meetings with staff (Sclafani et al., 2008), in which leaders advocated for change (Gaskin et al., 2007) and discussed (a) the vision and goals for the organisation (Pollard et al., 2007), (b) alternatives to seclusion and restraint (Ashcraft et al., 2012, Pollard et al., 2007), (c) their expectations of staff and (d) staff concerns (Ashcraft et al., 2012, Pollard et al., 2007). Leaders provided positive feedback for the use of alternatives to seclusion and restraint (Pollard et al., 2007) and discouraged the use of restrictive interventions. (Georgieva et al., 2010). In some instances, leaders had a clinical presence, were involved with staff coaching, gave commendations and facilitated support groups (Sclafani et al., 2008).

- **Culture change** – associated with many other aspects within this model is that reducing restrictive interventions requires culture change within organisations. In several healthcare providers, culture change was identified as an aspect of successful initiatives (Ashcraft et al., 2012, Barton et al., 2009). In one crisis centre, for example, a shift in staff culture from crisis to responsive mode was partly achieved by staff airing their fears and concerns and the leaders addressing their issues by referring to recovery values (Ashcraft et al., 2012). In addition, as part of the restrictive intervention efforts at one psychiatric hospital, staff changed the language they used (for example, not using terms like ‘seclusion room’ and ‘take-downs’; Borckardt et al., 2007).
- **Ward environments** – several of the initiatives to reduce the use of restrictive interventions required changes to ward environments. These changes have typically taken the form of improving ward aesthetics (Borckardt et al., 2007, Sivakumaran et al., 2011), the installation of comfort rooms (Barton et al., 2009, Cummings et al., 2010, Sclafani et al., 2008, Sivak, 2012) or the development of recreation facilities (Georgieva et al., 2010). Ward environments have also been changed through extending visiting hours (Gaskin et al., 2007).
- **Resourcing** – providing wards with additional resources to enable them to implement initiatives to reduce restrictive interventions (Chandler, 2012, Lee et al., 2010). In one acute inpatient unit, for example, sensory equipment (such as optic lamps and digital music players) was purchased and disseminated (Lee et al., 2010).
- **Consumer involvement** – working with people receiving mental healthcare as active participants in seclusion and restraint reduction initiatives (Gaskin et al., 2007). Consumer involvement has extended to briefing people about restraint reduction goals, seeking their cooperation in the enforcement of ward standards and discussing preferred interventions to be used in the management of aggression.
- **Documentation** – changing documentation practices to reflect and support efforts to reduce restrictive practices. Examples from the literature include using a questionnaire to capture information about a person’s preferences for dealing with agitation (Hellerstein et al., 2007), revising and updating clinical chart documentation in line with collaborative problem-solving principles and collecting information on consumers’ behaviour management histories (Sivakumaran et al., 2011).
- **Staff safety and welfare** – initiatives to enhance the safety and welfare of staff. An example is ensuring that the most acutely unwell consumers were not allocated to the same staff members and reporting patient assaults of staff to police (Gaskin et al., 2007).

Monitoring and feedback

Monitoring and feedback refers to collecting and processing data on the use of restrictive practices and feeding back information to those who make decisions about current practices. These activities include:

- **Data collection** – obtaining data on seclusion and restraint episodes for clinical, educational, managerial, and publicity media purposes (Gaskin et al., 2007).
- **Dissemination of information** – providing regular feedback to staff about the use of restrictive interventions (Azeem et al., 2011, Noorthoorn et al., 2008) and progress towards achieving seclusion and restraint reduction goals (Ashcraft and Anthony, 2008). At one psychiatric hospital, for example, a database that tracked PRN use was disseminated weekly to clinical teams (Friedman et al., 2012). In some organisations, this information was reviewed in several forums (Qurashi et al., 2010).

The effectiveness of seclusion and restraint reduction initiatives in mental health services

Determining the efficacy of seclusion and restraint reduction interventions and aggregating this information across studies is challenging for several reasons:

- The design of these studies means that cause and effect cannot be determined with certainty.
- The baseline positions of the organisations undertaking these interventions cannot be equalised. That is, it is difficult to determine whether the rate of restrictive interventions in one organisation is greater

or less than the rate in another organisation, taking into account the broad range of factors that may impact on the use of restrictive methods.

- Because these initiatives have no fixed timelines, it is conceivable that additional movements in seclusion and restraint rates resulting from reduction initiatives could have occurred after writing up data for publication.

Given this scenario, Gaskin et al. (2007) took a simple approach to assessing the efficacy of initiatives – totalling the numbers of studies in which increases and reductions in the numbers of restrictive interventions were made. It was found that in all but one study in which seclusion data were reported, reductions in the use of seclusion were evident. Although noting the lack of sophistication in this analysis and the weaknesses inherent in the studies reviewed for determining cause and effect, these authors concluded that the weight of evidence suggests that the interventions in these studies may have been effective in reducing the use of seclusion.

Expanding this analysis to the 30 papers included in this report (see Appendix B), the following observations are made:

- Of the 30 studies on seclusion and restraint reduction included in this review, reductions in the use of these measures were reported in 28 studies. In one study, in which only legislation was introduced, no changes in restrictive practices were found. Another study in which a comfort room was created yielded equivocal findings. These findings suggest that single-feature interventions may be inferior to more complex initiatives when it comes to producing substantial changes in practice.
- Minimal information was available on other key outcome variables (for example, aggression levels) that may have changed during the implementation of the initiatives. One reason for this limited availability of information may be that many of the decisions to publish the effects of interventions may have been made after they had started to become effective, rather than a decision made at the outset of these projects. Accordingly, pertinent information may not have been collected during the course of the projects. As can be found in Appendix B, however, this research shows that aggression decreased (five studies), assaults on staff and injuries to staff did not change (one study) or decreased (two studies), use of PRN medications or chemical restraint decreased (three studies), absconding decreased (one study) and adverse incidents decreased (one study).

These observations reiterate the conclusion that the weight of evidence suggests that restrictive practices can be reduced.

Reducing and eliminating seclusion and restraint in emergency departments

The authors of a systematic review concluded that there was insufficient empirical evidence to support the use of seclusion and restraint in emergency departments, and as a consequence recommended that these practices be used only as measures of last resort (Nelstrop et al., 2006). There is minimal research on initiatives to reduce restrictive interventions in emergency departments. In the two examples found in the literature, the impetus to initiate change seems to have stemmed from pressure that external organisations exerted (Blank et al., 2004, Emde and Merkle, 2002). In the first example from Washington, a visit from representatives of the then JCAHO and a Health Care Financing Administration survey resulted in the decision that reducing restraint use in the emergency department was required (Emde and Merkle, 2002). The following changes were made:

- environmental alterations (including replacing stretchers with wooden platform beds glued to the floor, removing hand rails, placing phone jacks flush with the wall and painting rooms a light colour to brighten them)
- educating all emergency department staff (apart from administrative staff) at a minimum level on the following topics: regulations and laws, identifying potentially violent incidents, de-escalation techniques and hands-on evasive manoeuvres and restraint application
- improving and reviewing documentation
- hiring extra support people to work in the emergency department.

Over the 13-month period during which these changes were implemented there was a gradual decrease in restraint use, from 20 times per month to seven times per month.

Following adverse findings from Department of Public Health inquiries, an emergency department in Massachusetts made multiple changes to ensure they were able to meet legal requirements with respect to the seclusion and restraint of patients (Blank et al., 2004). The changes made in the emergency department included (a) revising the restraint policy, (b) revising forms so that they reflected JCAHO standards, (c) implementing an educational program for all emergency department direct care staff, (d) developing a chart audit tool with educational feedback to staff and (e) identifying financial resources to support a psychiatric advocacy program. A significant feature of this initiative was the appointment of additional staff to perform the role of psychiatric advocates. A description of the role and competencies of the psychiatric advocate is provided in Figure 3. In the emergency department student nurses and emergency department assistants are employed to perform the psychiatric advocate role. Prior to beginning this role, staff received four hours of specialist training delivered by a clinical nurse specialist and a day supervisor. Preliminary evidence suggested that, following implementation, the length of time patients spent in restraints had reduced while maintaining low numbers of violent incidents. The numbers of patients mechanically restrained may have also reduced.

Reducing and eliminating seclusion and restraint among special populations

There is likely to be significant overlap between the seclusion and restraint reduction initiatives that have been effective in the general population and those that produce desired outcomes in special populations (Gaskin et al., 2008). Although the implementation processes for initiatives for special populations may be the same as those found to be successful in the general literature, however, the specific initiatives that require implementation may vary to some extent depending on the population to which care is provided.

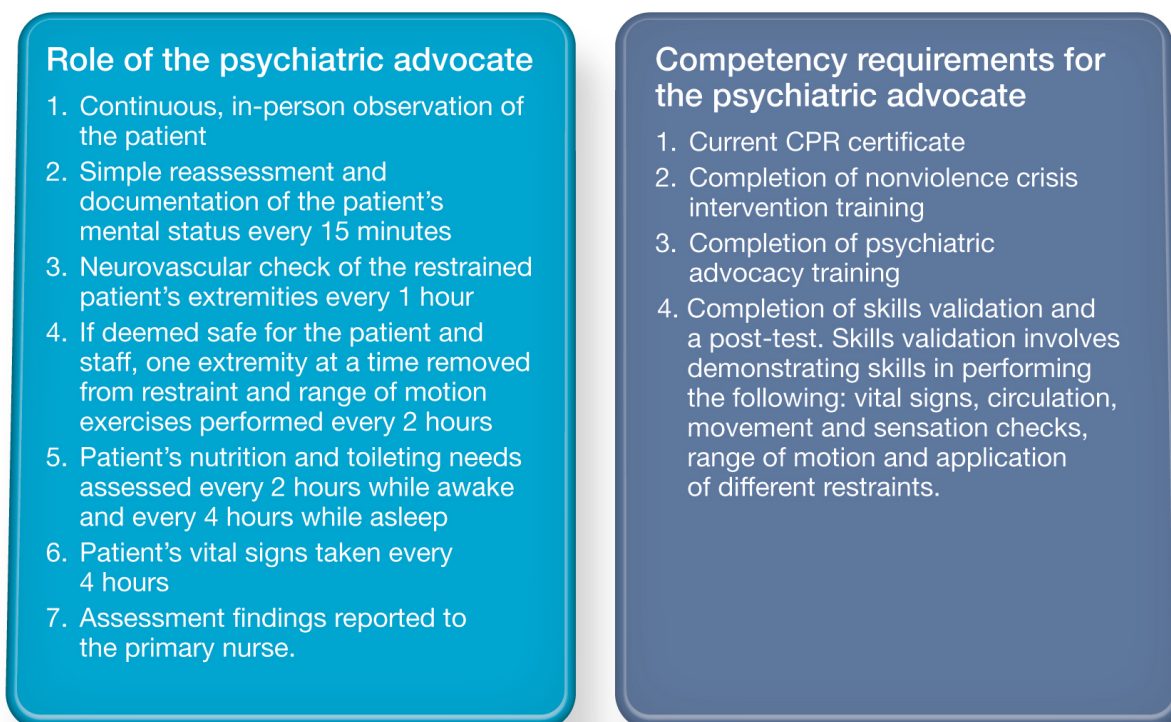
Children and adolescents

A recent systematic review identified four studies that reported seclusion and restraint reduction efforts with young people experiencing psychiatric issues (De Hert et al., 2011). Collectively, the organisations in these studies achieved a 93 per cent reduction in the use of restraints (with a 54 per cent decrease in the duration of restraint use) and a 75 per cent reduction in the use of seclusion (with a 32 per cent decrease in the duration of seclusions). The organisations achieved these outcomes in different ways. Major initiatives implemented in these organisations include a model of strength-based care, a management program oriented to behavioural therapy and a collaborative problem-solving approach for aggression. The common feature of these successful initiatives, therefore, seems to be the introduction of psychosocial models of care into these environments.

Older adults

A limited amount of research has been conducted on reducing restrictive practices among older adults and in particular people with dementia (De Bellis et al., 2013). In their review, De Bellis et al. identified several factors that have had an effect on reducing restrictive practices, including changing nursing practices, avoiding activities that are known to provoke aggressive behaviour, ward-based enforcement of assessment and review of restraint practices. The paucity of research in this area (especially in emergency and inpatient settings, as opposed to aged-care facilities) means that research in the broader area of seclusion and restraint reduction should be drawn upon in making evidence-based decisions about how to reduce restrictive practices in healthcare organisations.

Figure 3: Role and competencies of the psychiatric advocate



Note: From Blank et al. (2004, p. 44)

People with disabilities

The literature on reducing restrictive interventions among people with a disability is underdeveloped when compared to the work that has been published on such initiatives in mental health services (Gaskin et al., 2013). Furthermore, many of the restraint reduction interventions pertain to efforts to reduce the permanent or extensive use of mechanical restraints to prevent people with developmental disabilities from self-harming (for example, Jensen et al., 2012, Luiselli et al., 2005, Luiselli et al., 2000, Luiselli et al., 2006). This literature may have minimal relevance to mental health services and is not reviewed here.

Organisation-wide initiatives to reduce restraint use on people with developmental disabilities are described in four studies (Allen et al., 1997, Singh et al., 2006, Singh et al., 2009, Williams and Grossett, 2011). The initiatives reported were: (a) conducting a training program on reducing aggression (Allen et al., 1997), (b) providing staff with behavioural training (Singh et al., 2006) and mindfulness training (Singh et al., 2006, Singh et al., 2009) and (c) implementing organisational behaviour management, which involved using behavioural plans, monitoring and reporting relevant data and establishing organisational contingencies for mechanical constraint (Williams and Grossett, 2011). These initiatives were associated with often substantial reductions in restraint use.

Of these interventions, the one that appears the most novel (and does not appear in the literature from mental health services) is mindfulness training. In the Singh et al. (2009) study, for example, mindfulness training involved being taught meditation methods and provided with exercises to enhance mindfulness. The training occurred over 12 weeks, with staff receiving one two-hour session of mindfulness training per week. During and following the training, staff were instructed to use the skills they had learnt in their interactions with people in their care. No further information was provided about the contents of the training. In the periods during and following training, the use of physical restraints and stat medications reduced substantially, with the continued, limited use of these restrictive measures strongly associated with new admissions and the use of 'floating' staff who had not received mindfulness training. The

positive effects in the Singh et al. studies (2006, 2009) parallel those in the clinical literature, in which there is robust evidence that mindfulness therapy can improve symptoms related to anxiety and mood (Hofmann et al., 2010) and could promote improved attention (Chiesa et al., 2011). Mindfulness training may also help to reduce stress in healthy people (Chiesa and Serretti, 2009).

Reducing and eliminating seclusion and restraint: consumer-driven research

Consumer-driven research on reducing and eliminating restrictive practices appears in the grey literature (Foxlewin, 2012). This work is unique, important, progressive and aligns with international changes in social research practices, from doing studies *on* disabled people (including people with lived experience of mental illness) to disabled people being involved in all aspects of the research process, from developing research questions to the dissemination of findings (see, for example, Office for Disability Issues, 2011). The purpose of Foxlewin's research was to investigate what had happened during weekly seclusion and restraint review meetings within the Psychiatric Services Unit at Canberra Hospital that contributed to the substantial reduction in the use of seclusion in the unit. The researcher concluded that the most significant factor with respect to these meetings was the inclusion (and sometimes privileging) of consumers' voices. Foxlewin also suggests that consumers' stories of exclusion and emotional restraint encouraged staff members to speak about their own experience of working in the unit.

Foxlewin (2012) also discusses the challenges inherent in producing organisational change. She suggests that the seclusion and restraint review meetings had developed a culture wherein (a) difficult situations could be discussed without apportioning blame, (b) all points of view were valued and (c) exclusionary practices were investigated. Much of the work within the meetings focused on the negotiation of changes to attitudes and practices, calling for both professional and personal development. Foxlewin considers that the challenge and discomfort inherent in this work was a necessary precursor to the organisational change that occurred.

Reducing and eliminating seclusion and restraint: the Victorian experience

In 2006 a partnership between the Victorian Quality Council, the Chief Psychiatrist and the Quality Assurance Committee established the Creating Safety: Addressing Seclusion and Restraint Practices project with the main purpose of learning how to reduce the use of seclusion and restraint (Department of Health, 2009). Part of this project involved six acute mental health sites in Victoria identifying enablers and barriers to reducing the use of seclusion and restraint and developing and implementing their own plans to reduce the use of these practices. Activities at the six sites commenced in January 2008 and concluded in August 2008. Almost certainly due to the short duration of these projects, their impact on key outcome measures (number of consumers secluded or restrained, episodes of seclusion or restraint and duration of seclusion or restraint) was unclear. A relatively small number of consumers were involved with the project, and staff indicated that spikes in the data were often due to individual consumers who experienced restrictive measures for safety reasons. The project yielded the following key findings:

- **Leadership and organisational support** – the commitment of executive-level leadership was critical to the success of projects. Tangible examples of such commitment include sponsorship, policy commitment, mentoring, redirection of organisational resources to support practice change and systems improvement.
- **The involvement of all staff (particularly multidisciplinary staff)** – all staff had roles to play in reducing the use of seclusion and restraint. Consultant psychiatrists showed leadership, and medical and allied health clinicians made important contributions to changing practices and supporting inpatient nurse unit managers.
- **Compliance with legislation and guidelines** – the clinical peer reviews highlighted that staff sometimes interpreted relevant legislation and guidelines inconsistently. Training in the interpretation of legislation and guidelines was not routinely provided at the six sites.

- **Rigorous review and audit processes** – reviews of individual episodes of seclusion and restraint, as well as trends in aggregated datasets, contributed to change initiatives. Consultant psychiatrists had key roles in authorising review and audit processes, and a ‘no-blame’ culture was considered to be a requirement for the success of such processes.
- **The contribution of lived experience is integral to systems improvement** – consumer consultants were involved in the projects at three of the six sites. Staff from all sites, however, recognised that consumer involvement was an area in need of improvement. The sites reported that outcomes for people had improved through (a) involving consumers and carers in the admission and assessment process, (b) gender sensitivity and sexual safety and (c) post-incident consumer support.
- **The physical environment and therapeutic milieu** – various changes to the the physical environments and therapeutic milieus in the six sites were undertaken with the aim of enhancing people’s wellbeing and safety. Examples of these changes include: (a) adapting how the team worked to create opportunities for therapeutic engagement, (b) offering structured activity programs for people, (c) improving physical environments to make them less clinical and more welcoming, (d) introducing seclusion reduction tools (for example, sensory modulation strategies) and therapeutic groups and (e) being more responsive to peoples’ needs.
- **Training using a prevention and early intervention framework** – the project sites were strongly committed to ensuring that as many staff as possible attended the Creating Safety project training workshop. In this workshop there was a strong emphasis on understanding the consumer experience, using a prevention and early intervention framework, understanding the underpinning legislation and recognising standards of practice required when restraint or seclusion is used.
- **Practice change requires sustained effort** – staff at the six sites reported that 12 months was insufficient time to implement seclusion and restraint reduction plans. Direction and support are needed for at least three to five years.

These findings are consistent with those from the international literature. They reiterate that successful seclusion and restraint reduction initiatives involve multiple features implemented fully over several years.

Reducing and eliminating seclusion and restraint: international and domestic policy and positions

The position of the United Nations with respect to seclusion and restraint is clear. The *Principles for the protection of persons with mental illness and for the improvement of mental health care* (adopted by the General Assembly as resolution 46/119 on 17 December 1991) state that:

Physical restraint or involuntary seclusion of a patient shall not be employed except in accordance with the officially approved procedures of the mental health facility and only when it is the only means available to prevent immediate or imminent harm to the patient or others. It shall not be prolonged beyond the period which is strictly necessary for this purpose. All instances of physical restraint or involuntary seclusion, the reasons for them and their nature and extent shall be recorded in the patient's medical record. A patient who is restrained or secluded shall be kept under humane conditions and be under the care and close and regular supervision of qualified members of the staff. A personal representative, if any and if relevant, shall be given prompt notice of any physical restraint or involuntary seclusion of the patient.

The main features of this statement are echoed in the policy documents and position statements that were sourced for this review. In promoting the rights of people with mental disabilities, the WHO has pronounced the following:

- Human-rights-oriented mental health policies and laws can be an effective way of preventing violations and discrimination and promoting the autonomy and liberty of people with mental disabilities, and should be put in place.

- Free and informed consent should form the basis of treatment and rehabilitation for most people with mental disabilities. People should be consulted and involved in decisions related to their treatment and care.
- The improper use of seclusion and restraints should be outlawed.
- People have the right to living conditions that respect and promote their dignity. They have the right to adequate food, clothing, basic hygiene, safety and security. They have a right to recreational, educational and vocational activities, and to confidentiality, privacy, access to information and freedom of communication.
- Patients should be informed of their rights when interacting with mental health services, and this information should be conveyed in such a way that they are able to understand it.
- Legal mechanisms and monitoring bodies need to be in place to protect against inhumane and degrading treatment such as inappropriate and arbitrary involuntary admission and treatment. People should also have recourse to complaints mechanisms in cases of human rights violations (WHO, 2007, p. 3).

In the US, both the NASMHPD and the SAMHSA have firm positions in favour of reducing restrictive interventions. The NASMHPD's (2007) position statement on seclusion and restraint, for example, states that 'seclusion and restraint including "chemical restraints" are safety interventions of last resort and are not treatment interventions' (p. 1). The reduction and elimination of these restrictive interventions is one of the NASMHPD's goals. The NASMHPD suggest that this goal can be achieved through:

- early identification and assessment of individuals who may be at risk of receiving these interventions
- high-quality, active treatment programs (including, for example, peer-delivered services)
- trained and competent staff who effectively employ individualised alternative strategies to prevent and defuse escalating situations
- policies and procedures that clearly state that seclusion and restraint will be used only as emergency safety measures
- effective quality assurance programs to ensure this goal is met and to provide a methodology for continuous quality improvement (p. 1).

Both organisations have developed resources to assist services reduce and eliminate seclusion and restraint. For example, NASMHPD has produced *Six core strategies for reducing seclusion and restraint use* (NASMHPD, 2008) and SAMHSA has published *Roadmap to seclusion and restraint free mental health services* (2006).

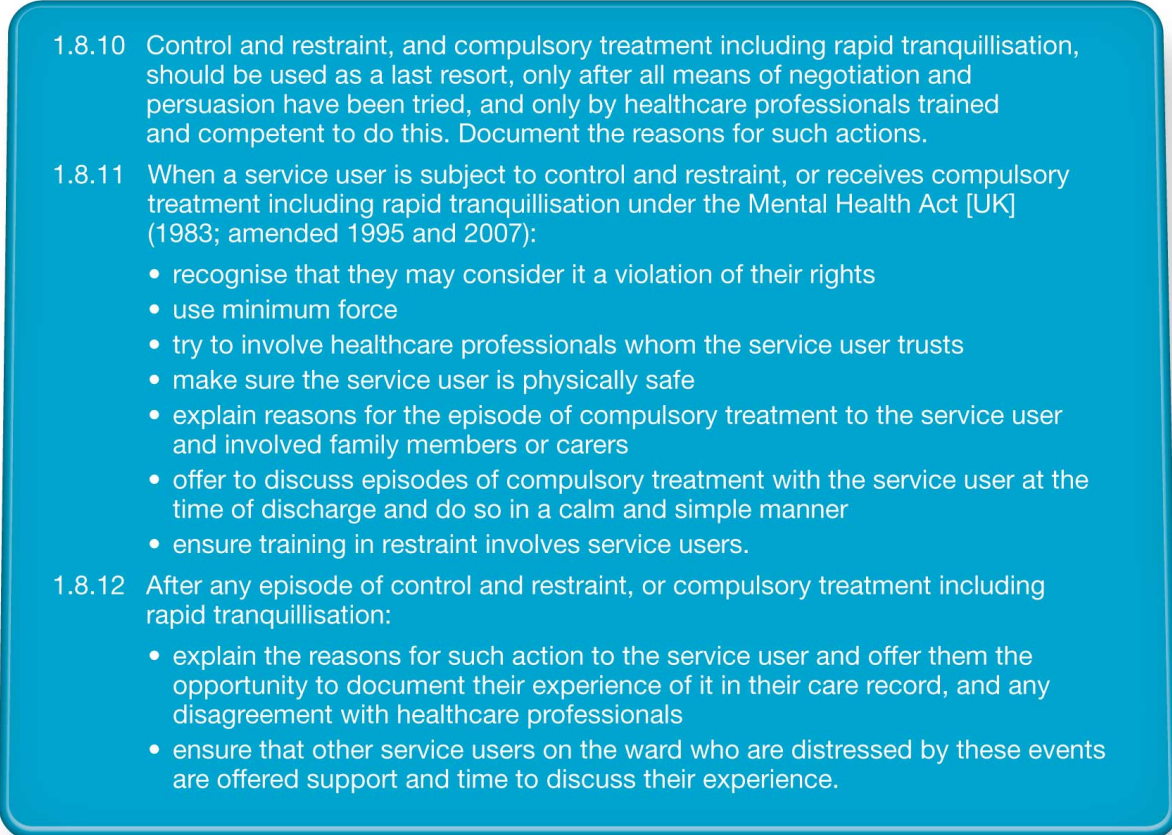
In the UK, the NICE commissioned the Royal College of Nursing (2005) to develop a clinical practice guideline entitled *Violence: the short-term management of disturbed/violent behaviour in in-patient psychiatric settings and emergency departments*. With respect to rapid tranquillisation, physical intervention and seclusion the guideline suggests that:

Rapid tranquillisation, physical intervention and seclusion should only be considered once de-escalation and other strategies have failed to calm the service user. These interventions are management strategies and are not regarded as primary treatment techniques. When determining which interventions to employ, clinical need, safety of service users and others, and, where possible, advance directives should be taken into account. The intervention selected must be a reasonable and proportionate response to the risk posed by the service user (p. 14).

In their guideline the Royal College of Nursing (2005) also presents an algorithm for the short-term management of disturbed and violent behaviour. This algorithm is presented later in this document (see the section entitled 'Literature review: preventing and managing aggression').

The direction provided by the Royal College of Nursing (2005) is continued in later NICE clinical guidelines, such as in *Service user experience in adult mental health: improving the experience of care for people using adult NHS mental health services (Clinical guideline 136; NICE, 2011)* and *Psychosis and schizophrenia in children and young people: recognition and management (Clinical guideline 155; NICE, 2013)*. As an example, the relevant text in NICE *Clinical guideline 136* is reported in Figure 4.

Figure 4: Guidance with respect to control and restraint, and compulsory treatment, from NICE Clinical guideline CG136



1.8.10 Control and restraint, and compulsory treatment including rapid tranquillisation, should be used as a last resort, only after all means of negotiation and persuasion have been tried, and only by healthcare professionals trained and competent to do this. Document the reasons for such actions.

1.8.11 When a service user is subject to control and restraint, or receives compulsory treatment including rapid tranquillisation under the Mental Health Act [UK] (1983; amended 1995 and 2007):

- recognise that they may consider it a violation of their rights
- use minimum force
- try to involve healthcare professionals whom the service user trusts
- make sure the service user is physically safe
- explain reasons for the episode of compulsory treatment to the service user and involved family members or carers
- offer to discuss episodes of compulsory treatment with the service user at the time of discharge and do so in a calm and simple manner
- ensure training in restraint involves service users.

1.8.12 After any episode of control and restraint, or compulsory treatment including rapid tranquillisation:

- explain the reasons for such action to the service user and offer them the opportunity to document their experience of it in their care record, and any disagreement with healthcare professionals
- ensure that other service users on the ward who are distressed by these events are offered support and time to discuss their experience.

Note: From NICE (2011, p. 28)

The seclusion and restraint policies of several UK healthcare providers featured prominently in the internet searches (Mersey Care, 2008, North East London NHS Foundation Trust, 2012, North Essex Partnership NHS Foundation Trust, 2010, Nottingham University Hospitals, 2009, Suffolk Mental Health Partnership NHS Trust, 2007). The main themes within these policies include:

- not permitting arbitrary decision making with regard to the use of restrictive practices
- mandating the use of restrictive practices only as a measure of last resort
- acknowledging the need to manage difficult and challenging behaviour in ways that show decency, humanity, honesty and respect for individual rights, balanced with the need to manage risk
- requiring episodes of seclusion to be recorded, monitored, and reviewed
- requiring that, if used, restrictive practices be applied for the least amount of time possible
- ensuring by way of risk assessment and risk management that the health of consumers, staff, relatives, carers and visitors is protected
- requiring compliance with relevant legislation and court rulings
- reporting to police the occurrences of physical assaults, racially or religiously aggravated incidents, actual or specific threats and incidents where a weapon is involved
- supporting people who are the victims of violence
- ensuring staff receive quality training and information in the management of aggression and violence
- implementing policies that contribute to reducing the risk of aggression and violence.

In Australia, government departments (ACT Health, 2011, NSW Health, 2012, Queensland Health, 2008), professional practice bodies (Australian Society for Geriatric Medicine, 2005, RANZCP, 2010) and consumer and carer advocacy groups (National Mental Health Consumer and Carer Forum [NMHCCF], 2009) have documented their positions on the use of restrictive practices. Although all organisations are in favour of minimising the use of restrictive practices, the positions of two organisations (NMHCCF, 2009, Queensland Health, 2008) are worth highlighting.

The unique aspect of Queensland Health (2008) policy is that it is a statement on reducing and, where possible, eliminating the use of seclusion and restraint, rather than a statement on how these restrictive measures should be used. Six key principles underpin the policy statement:

- Consumers and staff will be treated with equality and respect, their rights and responsibilities being central to promoting safety.
- Strategies to eliminate seclusion and restraint should be developed, implemented and evaluated with the involvement of staff, consumers and carers.
- Staff require specialist skills and alternative options to maintain therapeutic relationships and environments for consumers and carers.
- Services should be familiar with and adhere to legislation impacting on the use of seclusion and restraint.
- Leadership at all levels of the organisation is consistent and committed to a culture of reducing and, where possible, eliminating seclusion and restraint in Queensland and an understanding that seclusion and restraint can cause harm.
- Accountability for seclusion and restraint practices by mental health services should be demonstrated by formal and consistent benchmarking and evaluation processes.

Four policy statements are articulated within the document, each with their own implementation strategies (see Figure 5). Many of the features of effective seclusion and restraint reduction initiatives (see Figure 1) appear as strategies within the Queensland Health policy.

The stance of the consumer and carer forum NMHCCF (2009) echoes the aspirations for the minimisation of restrictive practices that feature in other documents; however, the statement contains positions that are not often articulated in documents from the government and healthcare sectors. Notably, the NMHCCF holds that: (a) seclusion and restraint are currently used at unacceptably high levels in Australian mental health services, (b) these practices are commonly associated with abuses of human rights, (c) neither measure is an evidence-based therapeutic intervention, (d) their use represents failures in care and treatment (e) the use of these practices highlight a culture of tension and antagonism, and a significant power imbalance between staff and consumers and (f) seclusion and restraint preclude the development of trust and respect, which are central to forming therapeutic relationships. This position is one example of how consumers and their families, carers and supporters have strongly advocated for the reduction of restrictive interventions.

Summary

The literature on seclusion and restraint reduction is built upon numerous case reports of how healthcare providers have successfully reduced and sometimes eliminated the use of restrictive practices in their organisations. The majority of reports come from work in psychiatric inpatient settings in the US, which is perhaps a reflection of national priorities and funding of programs to reduce and eliminate the use of restrictive interventions. Substantially less work has been published from other healthcare settings such as emergency departments.

The volume of work that has been published in this area, especially since Livingstone's (2007) review, has enabled the development of a model containing the features of successful seclusion and restraint reduction initiatives (shown in Figure 2). This model recognises the influence of the legislature, government departments and other external parties on the work of healthcare providers. The model also illustrates how a broad range of initiatives has been put in place using cycles of preparation, organising structures and staff, facilitating implementation, and monitoring and feedback. Although this model was

developed from the case reports from inpatient settings, the literature from emergency departments and disability services fits comfortably within this model.

For healthcare providers wishing to use this model to reduce restrictive practices, one question is, what features of the model are the most powerful in producing the desired outcomes? Unfortunately, this question is difficult to answer. In practice, healthcare providers have developed initiatives with multiple features, which makes it impossible to single out one or several features as being more important than others. The development of initiatives with several interrelated features seems to have been a response to the perceived strengths and weaknesses within organisations. Healthcare providers exhibiting different characteristics (for example, differences in legislative environments, established policies and practices, management talent, financial resources, staff culture, physical facilities, services provided, demographics of catchment area and so forth) are likely to draw upon different combinations of features in the model to reduce the use restrictive practices.

The content of policy documents and position statements from government departments, professional practice bodies, consumer and carer advocacy groups and healthcare providers reviewed for this report reflect the sentiments in the United Nation's *Principles for the protection of persons with mental illness and for the improvement of mental health care*. Although the strength of statements in opposition to the use of seclusion and restraint varies among documents, a common theme is the expectation that restrictive practices should be minimised. In some of the documents, strategies for reducing the use of seclusion and awareness are outlined.

Figure 5: Queensland Health’s policy statements on reducing and where possible eliminating seclusion and restraint



Note: From Queensland Health (2008, p. 5–6)

Literature review: aetiology of aggression

Aggression is a complex area of human behaviour. In this section, a model of human aggression is presented that serves as brief primer to the topic area. Next, research on aggression in healthcare settings is reviewed. The focus of this review is on three settings: psychiatric inpatient settings, emergency departments and acute settings. There has been substantial work on understanding the aetiology of aggression in psychiatric inpatient units, but comparatively little work in emergency and acute settings.

This review focuses on people receiving care as the source of aggression in healthcare settings. It is recognised, however, that consumers are not the only aggressors in healthcare settings. Staff regularly behave aggressively towards their colleagues (Autrey et al., 2013).

The General Aggression Model: a way of understanding aggressive behaviour

To seek to understand why people become aggressive, researchers have pursued several lines of investigation. One attempt to synthesise these multiple strands of theory and research led to the development of the General Aggression Model (GAM, see Figure 6; Anderson and Bushman, 2002, DeWall et al., 2011). This model has three main components:

- the person and situation inputs
- present internal states (including brain activity)
- outcomes of appraisal and decision-making processes.

The feedback loop within the model represents the potential for aggressive episodes to escalate, as past aggression influences future aggressive episodes (Anderson et al., 2008).

In their paper, Anderson and Bushman (2002) draw on research evidence in providing commentary on the factors within the model. This information has been synthesised in Tables 1 and 2. Table 1 details person and situation factors that have been associated with an increased propensity to act aggressively, and Table 2 includes the internal states that may promote aggressive behaviour. The appraisal and decision process involves complex information processes that range from a reasonably automatic reaction to a considered response. Factors affecting these processes include the resources available (for example, time and cognitive capacity) and whether the outcome of the immediate appraisal was important and satisfying. Impulsive action will result if (a) insufficient resources are available or (b) if they are available and the outcome of the immediate appraisal is both unimportant and satisfying. In contrast, thoughtful action comes when (a) sufficient resources are available, (b) the outcome of the immediate appraisal is judged to be important and unsatisfying and (c) reappraisal of the situation occurs.

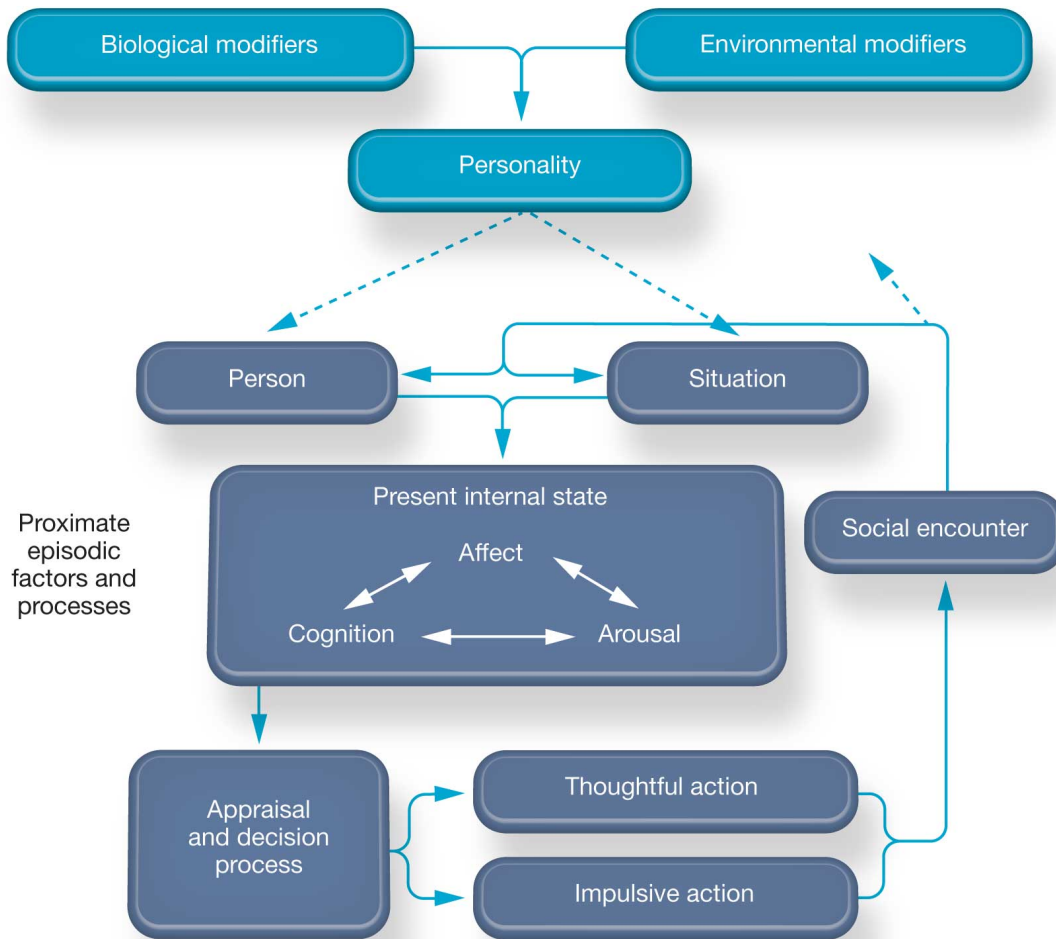
Aetiology of aggression in psychiatric inpatient settings

Internationally, one-third of people in psychiatric inpatient settings ($M = 32.4$ per cent, $SD = 19.6$ per cent) behave violently (Bowers et al., 2011, Papadopoulos et al., 2012). This percentage was calculated from the findings of 128 studies, in which the definitions of *violence* and *aggression* differed widely and included behaviours such as aggression towards objects, physical violence directed towards staff, self-harm, sexual aggression and verbal aggression. Researchers had typically reported physical violence data, but the description of the occurrence of other types of aggression was variable. Although the accuracy of this information can be questioned, a fair conclusion is that aggression is common in psychiatric inpatient units.

The extensive review conducted by Bowers and his colleagues (Bowers et al., 2011, Papadopoulos et al., 2012) included 71 studies from 13 countries, from which live, prospective, antecedent data could be extracted. Through the thematic analysis of this data, nine higher order themes were identified. These themes are reported in Table 3, along with the more prominent subthemes. In the studies reviewed, the most commonly reported antecedents to aggression were associated with the staff–consumer and consumer–consumer dyads. More specifically, frequently reported antecedents to aggression included limiting consumer freedoms, medication administration, restraint, care provision, and consumer–

consumer provocation. A comparison of people in psychiatric inpatient care who were aggressive with those who were not found that people who were aggressive tended to be those with histories of (a) previous violence, (b) involuntary admission and (c) illicit drug use.

Figure 6: General aggression model



Note: From DeWall et al. (2011, p. 246)

This literature has been recently reviewed (see *Nursing observation and the assessment and immediate management of suicide, self-harm, aggression, and absconding risks in psychiatric inpatient units: a review of literature*; Department of Health, 2013). Interested readers are encouraged to seek out more information from this report or from the primary papers cited.

In addition to personal and situational factors being implicated as antecedents of aggression, some authors have argued that identifying the functions of aggressive behaviour may also contribute to understanding the aetiology of aggression (for example, Daffern, 2007, Daffern and Howells, 2007, Daffern and Howells, 2009, Daffern et al., 2007). The traditional view that aggression is a dichotomy – either (a) a product of anger or (b) instrumental, with the purpose of attaining a specific goal – has been discredited (see, for example, Bushman and Anderson, 2001). However, Daffern and his colleague have proposed a broader scheme for classifying the functions of aggressive behaviour in psychiatric patients. In their development of the Assessment and Classification of Function, Daffern and his colleagues described the following functions of aggression: to avoid demands, to force compliance, to express anger, to reduce tension (catharsis), to obtain tangibles, to reduce social distance (attention seeking), to enhance status or social approval, to comply with instructions and to observe suffering. Although this

classification scheme may have intuitive appeal, at this point in time there is limited evidence to support its validity and reliability in psychiatric inpatient settings.

Table 1: Person and situation factors that may increase the likelihood of aggression

Factors	Susceptibility to aggression
Person factors	
Sex	<ul style="list-style-type: none"> • Males commit more homicides and aggravated assaults. • Provocation reduces the sex effect for physical aggression. • Males prefer direct aggression (for example, assaulting someone) whereas females prefer indirect forms (for example, blocking the passage, not speaking or refusing to perform tasks).
Traits	<ul style="list-style-type: none"> • People with hostile attribution, expectation, and perception biases • Those with inflated or unstable self-esteem when self-concept is threatened
Beliefs	<ul style="list-style-type: none"> • People who believe they can perform aggressive acts successfully (self-efficacy) • People who believe these acts will bring about desired results (outcome efficacy)
Attitudes	<ul style="list-style-type: none"> • Positive attitudes towards violence against specific people (for example, violence towards women)
Values	<ul style="list-style-type: none"> • The acceptability of violence as a method of dealing with interpersonal conflict within a person's value system (for example, codes of honour)
Long-term goals	<ul style="list-style-type: none"> • Preparedness to use aggression to achieve core goals (for example, respect, fear or wealth)
Scripts	<ul style="list-style-type: none"> • Interpersonal and behavioural scripts a person uses in a given situation
Situation factors	
Aggressive cues	<ul style="list-style-type: none"> • Presence of weaponry, or weapon pictures and words • Exposure to violent movies, television programs, and video games
Provocation	<ul style="list-style-type: none"> • Possibly the most important cause of aggression • Includes physical aggression, interference with attempts to achieve an important goal, insults, slights, and other forms of physical and verbal aggression • Perceived injustice is associated with workplace aggression
Frustration	<ul style="list-style-type: none"> • Most provocations are types of frustration, because they are associated with the blockage of goal attainment. • Displaced aggression (where the target of aggression differs from the source of the frustration) has received strong empirical support.
Pain and discomfort	<ul style="list-style-type: none"> • For example, loud noises, hot temperatures or unpleasant odours
Drugs	<ul style="list-style-type: none"> • Drugs, such as alcohol and caffeine, may have an indirect effect on the likelihood of aggression
Incentives	<ul style="list-style-type: none"> • The value of objects that people desire and their inherent perceived cost–benefit ratios can increase the likelihood of premeditated, instrumental aggression.

Note: Synthesised from Anderson and Bushman (2002)

Applying the General Aggression Model to the psychiatric inpatient literature

The findings of studies on the aetiology of aggression in psychiatric inpatient settings can be understood within the GAM (Anderson and Bushman, 2002). Specifically:

- **Person factors** – these factors have not been commonly implicated in causing aggression. Demographic variables such as age and gender have not been linked to aggression in psychiatric inpatient units (Bowers et al., 2011). Several person factors (traits, beliefs, attitudes, values, long-term goals and scripts) have not been routinely investigated in inpatient settings. Although **patient symptoms** have been noted as causes of aggression, psychiatric diagnosis is not associated with aggression.

- **Situation factors** – the more prominent themes within the literature are situational factors such as frustration (for example, due to limiting patient freedoms) and provocation.
- **Internal states, appraisal and decision making** – factors such as **patient symptoms, agitation,** and **patient emotional/mood cues** may limit the capacity of some people to respond to circumstances in a considered fashion while receiving inpatient care.

Table 2: Internal states that may increase the likelihood of aggression

Factors	Susceptibility to aggression
Cognition	
Hostile thoughts	<ul style="list-style-type: none"> • Some input variables (that is, person and situation factors) may increase the accessibility of aggressive concepts stored in memory. • Various factors (for example, violence on television) may prime aggressive thoughts.
Scripts	<ul style="list-style-type: none"> • Some people develop highly accessible aggressive scripts that determine how they respond in certain situations.
Affect	
Mood and emotion	<ul style="list-style-type: none"> • Input variables directly influence affect (for example, pain increases hostility or anger, uncomfortable temperatures increase aggressive affect, or violent movies increase hostile feelings). • Personality variables (for example, trait hostility) are associated with hostility-related affect.
Expressive motor responses	<ul style="list-style-type: none"> • Aversive experiences may activate aggression-related motor responses (including but not limited to facial expressions).
Arousal	
<p>Arousal can influence aggression in three ways:</p> <ul style="list-style-type: none"> • Arousal coming from an irrelevant source (for example, exercise) may strengthen a dominant tendency to behave aggressively (for example, if a person is provoked while aroused, aggression may tend to result). • Arousal from irrelevant sources may be mislabelled as anger in circumstances where there is provocation, thus promoting aggressive responses. • Unusually high and low levels of arousal may be aversive states, prompting aggressive responses in similar manners to extreme forms of other aversive stimuli. 	

Aetiology of aggression in emergency departments

Aggression and violence in emergency departments are particularly common (Stirling et al., 2001). In comparison to the literature on the aetiology of aggression in psychiatric inpatient settings, however, a limited number of studies have been conducted on the causes of aggressive episodes in emergency departments. The realities of aggression and violence in emergency settings have not been adequately documented, possibly due to the limited number of comprehensive studies that have been undertaken, methodological inconsistencies and concerns within those studies, and persistent under-reporting of aggressive and violent episodes (Ferns, 2005). A systematic review conducted over a decade ago (Stirling et al., 2001) highlighted the following factors as being common in emergency department aggressive episodes:

- **Sex** – more aggressive episodes involve male patients than female patients.
- **Age** – more perpetrators tend to be from the 16 to 25 age group than any other age.
- **Time of day** – violent episodes are overrepresented from midnight to 7.00 am compared with other times of day.
- **Disease states** – certain diseases (for example, diabetes, epilepsy, respiratory disease and head injuries) have been implicated in the aetiology of aggression.
- **Drugs** – alcohol is commonly cited as a contributing factor to aggressive episodes.

- **Previous violence** – aggressive episodes beginning before people arrive at emergency departments (for example, domestic violence or gang violence) may continue in hospital settings.
- **Setting characteristics** – long waiting times and overcrowded waiting rooms have been implicated as causal factors for aggression.

More recently, van der Zwan et al. (2011) reported that staff inflexibility and certain characteristics of staff (being young, small, female, and/or inexperienced) may also contribute to aggressive episodes. Additional research is required to confirm these findings.

Table 3: Antecedents of aggression in psychiatric inpatient units

Theme	% of studies with theme	Prominent subthemes ^a
Patient–patient interaction	47.9%	Unspecified patient provocation (18.3%) Unspecified patient–patient conflict (12.6%)
Staff–patient interaction	52.1%	Limiting patients’ freedoms (52.1%) Medication administration (26.8%) Restraint (21.1%) Caring for patient (18.3%) Unspecified patient provocation (18.3%) Ordering patients (16.9%) Unspecified staff–patient interaction (14.1%) Staff requesting patient to take medication (11.3%)
Patient conflict behaviours	14.1%	Threatening behaviour (6.9%)
External or personal themes	11.2%	Money issues (4.2%) Visit from family member or friend (4.2%)
Structural themes	18.1%	Admitted, transferred or discharged (5.6%) Excessive sensory stimulation (5.6%)
Patient behavioural cues	26.8%	Agitation (15.5%)
Patient emotion or mood cues	11.3%	Anger (4.2%) Irritability (4.2%)
Patient symptoms	28.1%	
No clear cause	54.9%	

Note: From Bowers et al. (2011)

^a Figures provided are the percentages of studies with each subtheme.

Applying the General Aggression Model to emergency department literature

The findings of studies on the aetiology of aggression in emergency departments can be understood within the GAM (Anderson and Bushman, 2002). Caution must be heeded in using this information, however, given the limited depth and methodological robustness of the literature. Specifically:

- **Person factors** – people who are aggressive tend to be young, male, intoxicated with alcohol or other drugs and may be affected by their medical conditions.
- **Situation factors** – people may have been involved in violence before presenting to emergency departments and may be affected by the characteristics of these settings (for example, overcrowding).
- **Internal states, appraisal and decision making** – people’s disease states may adversely affect their capacity to respond to circumstances in a considered manner.

Aetiology of aggression in acute settings

Limited research (in terms of both the number and sophistication of studies) has been undertaken on patient aggression in acute care settings (excluding the work on psychiatric units, already reviewed). From five sources, Ferns (2007) compiled a list of conditions that may predispose people to aggression. These conditions include:

- head injuries, cerebral vascular accident, cerebral pathology, organic brain dysfunction and clinical brain injury
- hypoxia
- metabolic disorders, hypoglycaemia and hyperglycaemia
- endocrine disorders
- seizures and frontal, temporal or limbic epilepsy
- psychiatric disorders, hallucinations, depression, anxiety, stress reactions and personality disorders
- history of post-traumatic stress syndrome
- prescribed medication side effects
- intoxication
- drug overdose
- drug and alcohol withdrawal
- age-related considerations, for example, dementia
- adolescent or childhood disorders, including conduct disorders, hyperkinetic disorders, autism and learning disability (Ferns, 2007, p. 42).

Although these conditions may increase the likelihood of a person behaving aggressively, large-scale prospective studies have not been investigated to determine the salience of each factor on this list.

Applying the General Aggression Model to the acute settings literature

The GAM (Anderson and Bushman, 2002) can be used to gain a better understanding of the literature on the aetiology of aggression in acute settings. With the exception of four possibly related conditions (prescribed medication side effects, intoxication, drug overdose and drug or alcohol withdrawal), Ferns's (2007) list largely comprises person factors. This observation differs from the research cited on dementia, where factors in the environment are also seen as contributing to aggressive episodes. The findings from Fern contrast with those in psychiatric inpatient settings, in which situation factors feature heavily as antecedents to aggressive episodes. There may be at least two explanations for this difference between settings: (a) acute and psychiatric inpatient settings are substantially different in terms of their propensity to foster aggression and (b) research on aggression in acute care settings is significantly underdeveloped in comparison to the work that has been conducted in psychiatric inpatient settings.

Aggression and special populations

Although young males who may (or may not) be under the influence of alcohol or other drugs are a prime demographic associated with agitation and aggression in healthcare facilities (for example, Stirling et al., 2001), some of the literature reviewed (for example, Ferns, 2007) has highlighted other populations of which healthcare professionals should be aware (for example, children and adolescents, older adults and people with disabilities).

Children and adolescents

The Office of the Surgeon General (2001) undertook a comprehensive review of literature on risk factors for violence in adolescents aged 16 to 18 years. The early risk factors (ages 6 to 11) that had the greatest association with youth violence were general offences and substance use. Being male, coming from a family of low socioeconomic status, having antisocial parents and (in males) aggression were moderately large risk factors from the early years of life. The later risk factors (ages 12 to 14) that had the

largest association with youth violence were weak social ties, antisocial and delinquent peers and gang membership. General offences were moderately associated with youth violence.

A more recent meta-analysis is informative on the predictors of anger in adolescence (Mahon et al., 2010). Statistically combining the findings from 88 studies, Mahon and colleagues found five factors had moderate to strong associations with anger (trait anger, anxiety, depression, stress and exposure to violence), four factors had low to moderate associations with anger (victim of violence, hostility, self-esteem and social support) and three factors had negligible associations with anger (age, race/ethnicity and gender). Although there are some parallels between these findings and those of the Office of the Surgeon General (2001), the differences in the results may be due to (a) violence and anger being separate constructs (anger does not always lead to violence) and (b) the apparent focus on individual variables, and relative neglect of social variables, in studies on adolescent anger.

Evidence from relatively recent studies on the use of restrictive measures with youth (under 21 years old) receiving psychiatric care suggests that approximately one-quarter (26 per cent) of patients experience seclusion and almost one-third (29 per cent) are restrained during their admission (De Hert et al., 2011). The findings from this systematic review also show that, based on a limited number of studies, the most common risk factors for seclusion and restraint were aggression or violent behaviour (both past and present), suicidal behaviour and more severe psychopathology. Less common risk factors include ethnicity (in some US studies), emergency admissions, out-of-home placement and poorer family functioning. These findings are consistent with those of a recent study on 242 violent incidents in a child and adolescent psychiatric setting in New Zealand, in which the most common antecedents to violence were positive symptoms of psychosis, hostility and agitation. Caution should be used when interpreting the less common risk factors found in the systematic review, because factors such as race have been found to be not related to violence in much larger reviews of literature (Office of the Surgeon General, 2001).

Older adults

Researchers have identified several risk factors for aggression in older adults, for example, sex (male), sleep disturbance and use of neuroleptic drugs. Severity of cognitive impairment is perhaps the most significant predisposing factor (Voyer et al., 2005). In the Voyer et al. study, older adults with mild to moderate cognitive impairment had almost three times the odds of displaying aggressive behaviour as those with no impairment. Older adults with severe impairment had nearly four times the odds. Given the prominence of cognitive impairment as a risk factor, significant research attention has been paid to the risk of aggression in people with dementia (Cipriani et al., 2011, Hall and O'Connor, 2004). In the most recent review of literature (Cipriani et al., 2011), aggression was found to be one of the main issues in dementia. Aggression is associated with a range of internal factors (depression, psychosis and pain) and external influences (caregiver burden, social stimulation and quality of the caregiver–patient relationship).

Minimal research has been conducted on aggression and older adults in emergency settings. The main conclusion of one study, however, was that violent older patients are not distinctly different from violent young patients (Ganzini et al., 1995). In this study, older patients who were violent typically had both medical and psychiatric illnesses and frequently used medical services. Most of the older patients (81 per cent) had a psychiatric diagnosis, predominantly alcohol dependence or psychotic disorders.

Some recent research in acute settings has concentrated on aggression and people with dementia (Jones et al., 2006, Soto et al., 2012). In a South Australian study, for example, the researchers concluded that the medically oriented environments of acute care settings can lead to confusion and agitation among people with dementia, which can escalate rapidly into aggressive and violent episodes (Jones et al., 2006).

Summary

Understanding the multitude of factors that may contribute to people acting aggressively is a complex task. The GAM provides a representation of how different types of factors may interact in the production of aggressive behaviours. The model also provides a lens to view the literature on aggression in psychiatric inpatient, emergency and acute (non-psychiatric) settings. For example, the model provides a way of identifying potential black spots in the healthcare literature.

With respect to psychiatric inpatient units, the most frequently reported antecedents to aggression are limiting patient freedoms, medication administration, restraint, care provision and patient–patient provocation. That is, researchers have mainly identified factors relating to staff–patient and patient–patient dyads as causes of aggressive behaviour. People who are aggressive tend to be those with histories of (a) previous violence, (b) involuntary admission and (c) illicit drug use.

Less information is available on the aetiology of aggression in emergency settings. Common characteristics of aggressive episodes, however, include male gender, aged between 16 and 25, presentation between midnight and 7.00 am, the presence of certain diseases or injuries (for example, diabetes, epilepsy, respiratory disease or head injuries), consumption of alcohol, involvement in aggressive episodes prior to presentation, setting characteristics (long waiting times and overcrowded waiting rooms) and staff characteristics (being young, small, female, and/or inexperienced).

Scant information is available on the aetiology of aggression in acute (non-psychiatric) settings. Factors that have been associated with aggression include head injuries, hypoxia, metabolic disorders, endocrine disorders, seizures, psychiatric disorders, prescribed medication side effects, intoxication, drug overdose, drug and alcohol withdrawal and age-related disorders (for example, dementia).

Literature review: preventing and managing aggression

In recent years, several reviews of the work on preventing and managing aggression have been published (Kynoch et al., 2011), with most focusing on emergency settings (Anderson et al., 2010, Snider and Lee, 2009, Tishler et al., 2013). These papers form the basis for the first part of this review. Following on from this section, literature on specific strategies to prevent and manage aggression will be highlighted. These strategies include:

- de-escalation
- limit setting
- observation
- sensory approaches
- maintaining safe therapeutic environments
- specialised teams
- recognising and responding to clinical deterioration
- PRN medication.

Strategies for preventing and managing aggression in special populations are also highlighted. The section ends with details of some resources available to assist in the prevention and management of aggression.

General literature on preventing and managing aggression

Prevention and management of aggression in mental health services

Evidence suggests that the risk of aggression can be reduced in mental health services. This literature has been recently reviewed (see *Nursing observation and the assessment and immediate management of suicide, self-harm, aggression, and absconding risks in psychiatric inpatient units: a review of literature*; Department of Health, 2013). Readers are encouraged to seek out more information from this report. The literature reviewed in this report shows that:

- Aggression in mental health services has been reduced using multifaceted initiatives that can involve governments, organisations and wards.
- Nursing behaviours can both increase and reduce aggression in mental health services. Behaviours conducive to the creation of safe environments include being aware of patient behaviours, attending to particular situations and the flow of activities around the ward, caring for patients and connecting with them.
- Providing staff with anger management training can reduce aggression in mental health services.

Prevention and management of aggression in emergency departments

Limited research (in terms of both the number and quality of studies) has been undertaken on the prevention and management of aggression in emergency departments (Anderson et al., 2010, Kowalenko et al., 2012, Snider and Lee, 2009). In the Anderson et al. systematic review on interventions to reduce violence against emergency department nurses, for example, the characteristics of trialled initiatives included environmental factors (metal detectors and security systems), practice and policy revisions (law changes, education and feedback about violence and aggression and incident report forms) and the development of individual and collective skill sets (for example, aggression management training, de-escalation kits and information pamphlets). As the reviewers noted, these initiatives come from a small number of studies that (a) focused on single interventions and failed to take the context into account or (b) were context-driven studies that may be difficult to generalise. Furthermore, several of these studies were focused on measuring people's perceptions of success, rather than on key outcomes such as violence against staff.

The need for a comprehensive approach to preventing and managing aggression was also highlighted in a review of workplace violence in emergency medicine (Kowalenko et al., 2012). Like Anderson et al.

(2010), Kowalenko et al. commented on the limited research available to inform practice, but suggested that leaders within emergency settings should:

- negotiate commitment from hospital management to reduce workplace violence in emergency departments
- obtain site-specific analyses of their emergency departments
- use site-specific violence prevention interventions at individual and organisational levels
- advocate for programs and policies that reduce the risk of violence in emergency departments.

Prevention and management of aggression in acute care settings

A limited amount of research has been conducted on the prevention and management of aggression in acute care settings. A recent systematic review identified no studies on strategies to prevent patient aggression and 10 studies on the management of aggressive patients (Kynoch et al., 2011). Initial evidence suggests that the following strategies may be helpful in managing aggressive patients:

- **Staff training** – the findings from three studies suggest that undertaking training promotes self-efficacy among staff and assists with the management of aggressive patients.
- **Chemical restraint** – please note while the literature identifies this practice, it is not considered acceptable in mental health settings in Victoria. The findings from six studies suggest that the administration of PRN medications reduces the risk of aggressive behaviour and harm to others.
- **Mechanical restraint** – the findings of one study suggest that using mechanical restraints is effective in reducing harm to others, with minimal complications when used over short periods of time.

These findings suggest that research on the prevention and management of aggression in acute care settings is very much in its infancy, with no clear commitment to undertaking trials of less restrictive practices. Until studies on less restrictive practices are conducted in these areas, readers are encouraged to look towards the work undertaken in mental health services and emergency departments.

De-escalation techniques

De-escalation involves using psychosocial techniques to calm people displaying agitated or aggressive behaviours. The skilled use of de-escalation techniques is recommended ahead of restrictive measures (that is, restraint or seclusion) for the management of agitated and aggressive behaviour within healthcare settings (Hankin et al., 2011, Price and Baker, 2012). Unfortunately, minimal research attention has been paid to de-escalation techniques. The limited research interest in this area may be attributable to a range of reasons including the preference (until recently) for using physical measures to manage agitation and aggression (Richter, 2007) and the assumption – possibly misplaced – that mental health staff know how to perform de-escalation techniques. In their synthesis of the literature on de-escalation techniques (n = 11 papers), Price and Baker identified seven themes. The first three themes can be grouped under the broad heading of **staff skills**, and include:

- **Effective de-escalation** – staff who are effective at using de-escalation techniques are considered to be confident (but not arrogant), coherent, genuine in their concern for patients, honest, non-judgemental, non-threatening, open, permissive (and non-authoritarian), self-aware and supportive. Such qualities help staff to gain the trust of people exhibiting agitation and aggression, making requests for self-control more likely to succeed. Empathising with people is also considered central to helping people feel understood, validating their experiences and reducing the need for aggressive behaviour.
- **Maintaining personal control** – the maintenance of a calm appearance when faced with people who are agitated and aggressive is considered important to the de-escalation process. Although staff may experience anxiety in such settings, effective de-escalators are able to manage their own feelings and project a calm appearance. Conveying a calm appearance may have several benefits including (a) helping others to manage their own feelings, (b) communicating trust that people showing agitation and aggression will not be violent and (c) conveying that the staff have control over the situation. In contrast, staff who appear fearful in such situations may make patients feel insecure and unsafe, and

that they have gained control. Staff have used different strategies for managing their own anxiety in such situations, including focusing on assessing patients and acknowledging their own feelings rather than being in denial of them. Staff displaying anger or offence is regarded as being unhelpful to the de-escalation process. If staff perceive that a patient's agitation and anger is beyond their control, it may help staff to avoid feeling angry or offended.

- **Verbal and non-verbal skills** – using a calm, gentle and soft tone of voice is central to de-escalation. Effective use of verbal skills also means that language is used tactfully. Humour can be used sensitively, but care must be taken not to belittle patients. With respect to non-verbal skills, staff awareness of their own body language (for example, posture, intention movements, eye contact, proximity, touch and facial cues) is important. What staff say and their body language should reflect their concern for patients. Active listening can promote perceptions of being heard and understood. Some eye contact is considered necessary for assessment, maintaining the attention of patients and building rapport. Fixed eye contact may be counterproductive, however. The literature is equivocal about the use of personal touch; for some people, touch can be comforting, whereas for others it can be threatening. Although intruding on a person's personal space should be avoided, being close to patients is necessary to develop rapport.

The other four themes pertain to the process of **intervening**, and include:

- **Engaging with the patient** – effective de-escalators establish relationships with people based on mutual regard and remove the need for aggressive behaviour. Promoting autonomy is emphasised, which requires reducing restrictions as far as possible. These staff behaviours communicate trust and humanity, and promote self-control. Remaining connected with patients throughout the de-escalation process helps to maintain rapport and provides opportunities for continuing risk assessment. Valuing and respecting people may help them to reclaim their senses of dignity, which may reduce the need for aggression. Punitive approaches are counterproductive to engagement.
- **Deciding when to intervene** – although early intervention is preferable, staff who intervene in situations need to be aware that they may exacerbate the situation. Deciding whether or not to intervene has been based on several factors including meaning of behaviour, knowledge of the person, whether the person's behaviour deviates from their normal presentation, dangerousness of behaviour, impact on the milieu, impact on others and staff resources. Staff have generally been more tolerant of behaviour that was due to illness.
- **Ensuring safe conditions for de-escalation** – consideration of both staff availability and the physical environment should be made. Although having adequate staff support may be important to effective de-escalation, the presence of too many staff may be perceived as a 'show of force', which may escalate aggression. The physical environment should be scanned for potential weapons and the availability of exits for staff to use if needed. When circumstances allow, people involved in de-escalation should be encouraged to move to a quiet area that is away from other staff and people. In doing so, however, staff should ensure that moving the person is not likely to escalate aggression.
- **Strategies for de-escalation** – no clear approach to deciding upon strategies for de-escalation have emerged, with choices seemingly the result of instinct and intuitive processes that require flexibility and creativity, as well as an awareness of people's characteristics and needs. Effective interventions seem to be those that strike a balance between support and control of the situation. These interventions can be considered on a continuum between supporting autonomy to boundary and limit setting. Autonomy-confirming interventions included shared problem-solving (identifying the reason for the aggression, what could be done to resolve it and what normally assists the person to feel calmer), facilitating expression (encouraging people to express their emotions without harming themselves or others) and offering alternatives to aggression (for example, other activities, suggesting new responses to frustrating situations and teaching coping mechanisms). Limit setting and authoritative interventions involve exerting control and are higher risk strategies, but may be appropriate when faced with intimidating, threatening or violent behaviour. In such situations, discussing a person's feelings may not be possible, and escorting them to a safer area to continue de-escalation attempts, possibly in conjunction with medication, may be necessary.

Guidelines for verbal de-escalation

The American Association for Emergency Psychiatry Project BETA De-escalation Workgroup have developed a consensus statement for the verbal de-escalation of agitated people (Richmond et al., 2012). This workgroup proposed a three-step approach to verbal de-escalation:

- engage the person verbally
- establish a collaborative relationship
- verbally de-escalate the person out of the agitated state.

They have provided guidelines for environment, people and preparedness (see Table 4) and guidelines for general de-escalation (see Table 5). These guidelines centre on four main objectives for working with agitated people: (a) ensuring the safety of the person, staff, and others in the area, (b) helping the person to manage their emotions and distress and maintain or regain control of their behaviour, (c) avoiding the use of restraint when at all possible and (d) avoiding the use of coercive interventions that escalate agitation.

Limit setting

Although limit setting has already been mentioned as a strategy that can be used in de-escalation attempts (Price and Baker, 2012), it can also be considered as a separate strategy to prevent and manage aggression (Daffern et al., 2012). A significant challenge with reviewing literature in this area is that there is not a commonly used definition of limit setting (Maguire et al., 2013, Vatne and Fagermoen, 2007). Research with nurses, for example, has produced two contrasting perspectives of the practice of limit setting; that is, limit setting can be used (a) to correct (with a focus on inappropriate behaviour) and (b) to acknowledge (with a focus on vulnerability) (Vatne and Fagermoen, 2007). This definitional ambiguity is perhaps one reason that limit setting has been identified both as a strategy to manage aggression (Price and Baker, 2012) and as an antecedent to aggressive episodes (Flannery, 2007, Mellesdal, 2003). Another explanation for why limit setting could both reduce and increase aggression is that some ways of implementing this strategy may be more effective than others (Lowe et al., 2003). Although placing limits on people's behaviour is arguably an essential aspect of maintaining a civilised society (both in and outside of mental health services), the increased regulation that has been characteristic of institutional psychiatry has often resulted in the dehumanisation and stigmatisation of people receiving care (Vatne and Holmes, 2006). With limit setting able to be either therapeutic or coercive depending on how it is used, it is understandable that this strategy can lead to both positive and adverse outcomes.

The findings from the small number of studies that have been conducted on limit setting show a clear preference for using this strategy in a way that is respectful, empathetic, confirms people's autonomy and provides people with options (Lancee et al., 1995, Lowe et al., 2003, Maguire et al., 2013). In contrast, limit-setting styles based on belittlement, authoritarianism and platitudes are unlikely to be effective in preventing and managing aggression.

No evidence-based guidelines to assist healthcare professionals with limit setting currently exist. The Maguire et al. (2013) study makes progress in this regard, however, through exploring the concept of limit setting with nurses and people from a forensic mental health setting and having them propose principles to guide practice. Three main themes emerged from the interview material: (a) limit setting is important for safety, (b) engaging people in an empathic manner is important when setting limits (participants suggested engaging in an empathic manner is more likely to preserve the therapeutic relationship and reduce the risk of aggressive responses) and (c) an authoritative, rather than authoritarian, limit-setting style enhances positive outcomes. These themes provide some guidance as to how limit setting may best be conducted.

Observation

Although observation has featured in clinical guidelines for the management of disturbed and violent behaviour (for example, Royal College of Nursing, 2005), the empirical support for observation practices

is limited (Manna, 2010). One study investigated the effect of discontinuing formal observation (surveillance) on several outcome measures including violence on the ward (Dodds and Bowles, 2001). When formal observation was removed violence on the ward decreased 33 per cent at the same time. Any attempt to attribute cause and effect in this situation is fraught, however, because formal observation was ceased concurrently with other major changes (including appointing a new nurse unit manager, reducing the number of beds from 28 to 21, changing the gender composition within the ward from mixed-sex to male-only patients, focusing on care interventions rather than those based on control and promoting a professional culture among nursing staff). The combination of these changes most likely contributed to the positive outcomes achieved.

Readers who are interested in further information on observation practices are referred to the review, *Nursing observations in psychiatric inpatient units: a review of literature* (Department of Health, 2012).

Table 4: The American Association for Emergency Psychiatry Project BETA De-escalation Workgroup’s guidelines for environment, people, and preparedness

Guideline	Key messages
Physical space should be designed for safety.	<ul style="list-style-type: none"> • Moveable furniture facilitates equal and flexible access to exits for both staff and people. • Moveable furniture provides the opportunity to create a safe environment quickly, whereas stationary furniture can create a false sense of security. • Adequate exits should exist. • Extremes in sound, temperature and wall colour should be avoided. • Objects that may be able to be used as weapons should be removed. • Any objects that cannot be removed should be monitored.
Staff should be appropriate for the job.	<ul style="list-style-type: none"> • Staff should be good at multi-tasking and tolerate changing patient priorities. • Staff must tolerate, and even enjoy, working with agitated people. • Agitated people may attempt to provoke staff and challenge their competence credentials and authority, which makes it imperative that staff are aware of, and can control, their counter-transference issues and negative reactions. • Security staff and police officers must accept that agitation is commonly a manifestation of psychiatric conditions and that de-escalation is the preferred response. • De-escalation skills can be learnt, with a good attitude, a positive regard for people and the capacity for empathy being important prerequisites.
Staff must be adequately trained.	<ul style="list-style-type: none"> • All staff working with agitated people should receive training in the use of de-escalation techniques. • De-escalation frequently involves repetitions of the following loop: (a) listening to the person, (b) formulating a way to respond that validates the person’s position and (c) stating what the person should do (for example, take medication, sit down). • De-escalation can frequently be successfully performed in under five minutes. • Most complicated cases of de-escalation can be successfully undertaken in a little more time. • Although it can be difficult to engage and de-escalate some people (for example, those who are delirious), de-escalation techniques should be continued if there are no signs of escalation towards violence.
An adequate number of trained staff must be available.	<ul style="list-style-type: none"> • There needs to be adequate numbers of staff available to provide verbal de-escalation, to offer voluntary medication if possible, and to ensure safety if the person becomes violent. • A busy emergency service should have a de-escalation team of four to six members that includes nurses, clinicians, technicians, and police and security officers (if available).
Objective scales to assess agitation should be used.	<ul style="list-style-type: none"> • Using objective scales to measure agitation may prevent staff from overlooking early signs of aggression.

Note: From Richmond et al. (2012)

Table 5: The American Association for Emergency Psychiatry Project BETA De-escalation Workgroup’s general de-escalation guidelines

Guideline	Key messages
Clinicians should self-monitor and feel safe when approaching the person.	<ul style="list-style-type: none"> • Staff cannot use de-escalation techniques effectively if they are emotional, or frightened of agitated or aggressive people. • Keeping staff safe is the first step in promoting a safe environment • A substantial amount of information is communicated through body language, especially tone of voice. • When approaching agitated people, staff must monitor their own emotions and physiological responses and remain calm to be able to use de-escalation.
There are 10 domains of de-escalation that help clinicians care for agitated people.	<p>The 10 domains, with key recommendations in parentheses, are:</p> <ul style="list-style-type: none"> • Respect personal space (staff should respect the person’s and their own personal space). • Do not be provocative (avoid iatrogenic escalation). • Establish verbal contact (only one person should verbally interact with the patient; the staff member should introduce themselves to the patient and provide orientation and reassurance). • Be concise (be concise and keep it simple; repetition is essential to successful de-escalation). • Identify wants and feelings (use free information^a to identify wants and feelings). • Listen closely to what the person is saying (use active listening; use Miller’s Law^b). • Agree, or agree to disagree. • Lay down the law and set clear limits (establish basic working conditions; limit setting must be reasonable and done in a respectful manner; coach the person in how to stay in control). • Offer choices and optimism (offer choices; broach the subject of medications; be optimistic and provide hope). • Debrief the person and staff (debrief the person; debrief the staff).

Note: From Richmond et al. (2012)

^a Free information is that which comes from the person’s body language, trivial things that the person says and information learnt from previous encounters (Smith, 1975), all of which could help staff to identify the person’s wants and needs. ^b Miller’s Law states that, ‘To understand what another person is saying, you must assume that it is true and try to imagine what it could be true of’ (Elgin, 1999).

Although the evidence available on the effectiveness of observation practices is limited at this time, more literature is available on what healthcare professionals should be trying to observe in people. The section entitled ‘Literature review: aetiology of aggression’ provides a summary of what is known about the antecedents of aggression, and could be used to inform observation practices.

Sensory approaches

In recent years, increased research attention has been paid to the effects of using sensory approaches (for example, sensory carts and sensory rooms) in the care of people receiving inpatient care (Chalmers et al., 2012, Champagne, 2006, Novak et al., 2012), people with dementia (Hope, 1997, Verkaik et al., 2005), people with developmental disabilities (Cuvo et al., 2001, Martin et al., 1998) and breastfeeding mothers (Hauck et al., 2008). Research conducted in psychiatric inpatient units has generated equivocal findings (Chalmers et al., 2012, Knight et al., 2010, Novak et al., 2012). The introduction of a sensory room to an acute psychiatric unit in Sydney, for example, seemed to result in a reduction in pacing, loudness, irritability, intrusiveness, anxiousness and consumers’ ratings of their distress levels (Novak et al., 2012). However, this evaluation found no statistically significant changes for two key outcomes;

namely, episodes of seclusion and aggressive incidents. The small sample size in this pilot study may have affected the ability of researchers to establish statistically significant findings, especially for the number of aggressive incidents. Consistent with these results, the preliminary findings from the implementation of sensory approaches at the Mercy Mental Health Psychiatric Unit in Victoria show that consumers had lower levels of distress on exiting the sensory room than on entry, rated by both consumers and clinicians (Chalmers et al., 2012).

Research undertaken with older adults has also produced mixed findings (Knight et al., 2010, Verkaik et al., 2005). A systematic review related to people with dementia concluded that there was some evidence to suggest that multisensory stimulation could reduce apathy in the latter stages of dementia, but no evidence of a positive effect on aggression (Verkaik et al., 2005). With regard to inpatient care, in one study with older adults (aged 53 to 92) who were receiving care in one general psychiatry unit and one geriatric neuropsychiatry unit, researchers found that psychiatric symptoms reduced with the use of multisensory interventions (Knight et al., 2010). These interventions (for example, aromas, coloured eyeglasses, music recordings, wall images and weighted blankets) were no more effective, however, than traditional approaches used in the units (for example, alone time or quiet time, increased supervision, one-on-one staff time, pacing or removal from stimulation).

To support people with differing needs, a full range of sensorimotor activities needs to be available and continual collaboration between healthcare staff and consumers should occur to facilitate the effective use of these resources (Champagne and Stromberg, 2004). The sensory needs of people at risk of self-harm, for example, may often be different from those who are depressed or anxious. The most frequently used items in the sensory room of an inpatient unit in Sydney were: weighted blankets (39 per cent of people used this item), an audio device for playing music (37 per cent), magazines and books (35 per cent) and a rocking chair (28 per cent; Novak et al., 2012). Less frequently used items were scents (7 per cent) and a fitness ball (7 per cent). These findings are similar to those of a six-month pilot project within an acute psychiatric inpatient unit at The Alfred in Melbourne, during which staff used numerous sensory resources to calm disturbed people (Lee et al., 2010). These resources included musical instruments or listening equipment, for example, MP3 players, drums or guitars (used by 43 per cent of staff), tactile balls or putty (40 per cent), weighted blankets (20 per cent), arts or crafts (10 per cent), optic lamps (10 per cent), distortion glasses (10 per cent), card or board games (six per cent), massagers (six per cent), aromatherapy (three per cent) or a rocking chair (three per cent).

Some papers describe how sensory approaches were implemented in ward settings (Lee et al., 2010). In the pilot project at The Alfred, for example, implementation involved:

- **The purchase and dissemination of sensory resources** – the resources supplemented existing art and music therapy resources and included digital music players, musical instruments, glider chairs, herbal teas, an exercise bike, stress balls, putty, optic lamps, and weighted blankets. A sensory cart was used to store and to transport resources.
- **Development of the Alfred psychiatry safety tool** – a two- page questionnaire for clinicians to use during interviews with consumers to capture information on stress triggers and warning signs, calming strategies, and seclusion history. This information could be included in safety plans.
- **Staff education** – workshops that promoted familiarisation with and use of sensory resources and the Safety safety Tooltool, as well as a two-day practical training program on de-escalating and managing aggressive behaviour.

In a similar fashion, the implementation of sensory approaches at the Mercy Mental Health Psychiatric Unit involved a strategy with multiple features (Chalmers et al., 2012). The strategy involved (a) the formation of a multidisciplinary team (including the nurse unit manager, two registered psychiatric nurses and the occupational therapist) to conduct a needs analysis and establish the changes required, (b) modifying the physical environment, (c) implementing personal safety plans for consumers, (d) adapting existing groups and implementing sensory groups, (e) developing a sensory room, (f) providing ongoing staff education and training and (g) implementing an engagement program for the high-dependency unit. Aspects of the strategy were implemented consecutively, with the intention of maximising their acceptance and effectiveness. There are strong parallels between the multifaceted strategies used to

implement sensory approaches and those used in seclusion and restraint reduction initiatives (see Figure 2). Bringing about practice change requires strong leadership, the formation of effective teams, genuine engagement with staff, education and training, and monitoring progress.

Maintaining safe therapeutic environments

In this section, strategies for preventing and managing agitated and aggressive behaviours have been presented separately. In practice, however, healthcare professionals use a blend of strategies to keep environments safe. Expertise is developed through combining theory, research evidence and experience (McElroy, 1996). In summarising the literature on creating a safe therapeutic milieu, Delaney and Johnson (2006) suggest that the research findings converge on three nursing abilities: (a) learning to respect consumers as people, (b) the use of intersubjective communication (that is, body language) and (c) the ability to be fully present in the situation. In their own study of the strategies that nurses use to handle potentially volatile situations on psychiatric inpatient wards, Delaney and Johnson identified several themes that are consistent with those previously appearing in the literature.

Being there and becoming aware

The concept of 'being there' implies having an outward focus; that is, attending to the movements of people around wards and to subtle changes in their behaviour. 'Becoming aware' refers not only to an awareness of people in the therapeutic milieu, but also to an awareness of one's own behaviour (including body language), thoughts, emotions and motivations. Through observing people's behaviour, nurses gain a sense of their regular behaviour, notice shifts in behaviour patterns and act if need be. Signs of agitation and aggression in some people may need to be quickly addressed, whereas for others continued observation may be sufficient.

Caring and connecting

As well as being aware of peoples' behaviours, intervening in situations can help people to deal with frustrations and to manage dysregulation. Although these interventions can sometimes be small responses, they demonstrate caring and promote connections between staff and consumers.

Balancing

Balancing the needs of individual consumers and those of the therapeutic milieu occurs when staff consider whether and how to respond to consumers displaying challenging behaviours. Sometimes not responding but continuing to observe what is happening is a preferable response. For example, responding to individual behaviours in some situations may cause major disruptions to the broader therapeutic milieu. Staying calm and avoiding over-controlling situations seems conducive to maintaining safe environments.

Deciding how to respond

Staff decisions about how to respond are well thought through, and frequently involve balancing multiple factors, such as their own and the person's needs for control, and the need for people to feel safe. In making sense of a person's behaviour, nurses relied on their knowledge of consumers' typical behaviours and the perceived antecedents to their current behaviour.

As can be inferred from the GAM (Anderson and Bushman, 2002, DeWall et al., 2011), agitation and aggression can have many antecedents and do not always escalate and de-escalate in a linear fashion. The field observations of Johnson and Delaney (2007) in two psychiatric inpatient units are consistent with this model. These researchers found that no particular behaviours characterised escalating situations, because the trajectories were highly dependent on the situations in which they occurred. Nevertheless, these researchers suggested there were three types of escalating situations (see Table 6). Although this synthesis may be an oversimplification of complex situations, Johnson and Delaney offer some practical suggestions for managing each of these types of situations (see Table 6). These researchers noted, however, that how staff approached escalating situations was highly individualised.

The need for observation and engagement are common themes that underpin the implications for management.

Table 6: Types of escalating situations and management implications

Type	Characteristics	Management implications
Suddenly erupting situations	High-intensity situations that frequently begin without a known antecedent and result in aggression	<ul style="list-style-type: none"> • Observe the milieu to identify low-level frustration and disagreements. • If necessary, help people to resolve these issues. • Check with people to identify any concerns they may have (rather than expecting people receiving care to approach staff). • After situations erupt, undertake critical reviews to identify the cues that tension and frustrations had been developing.
Smouldering situations	Moderate-intensity situations that remain that way for prolonged periods of time	<ul style="list-style-type: none"> • Observe to identify (a) regular patterns of behaviour, (b) changes in those behaviours and (c) the effect of smouldering situations on others. • Knowing people is important for successful management. • Staff need to stay calm and not become agitated themselves. Interventions should be based on what is happening in the milieu, rather than a response to one's own frustration.
Bubbling-up situations	Situations in which the intensity mildly increases and decreases repeatedly over varying periods of time	<ul style="list-style-type: none"> • Continuous monitoring and assessment is required. • Staff may be able to manage periods of escalation through adding structure to the day, responding to people's requests, attempting to meet their needs and increasing staff presence in the milieu. • Staff need to be aware of recurring patterns (for example, time of day) when escalation occurs and put strategies in place to improve management of the milieu during these times.

Note: From Johnson and Delaney (2007)

Specialised teams

The section on effective seclusion and restraint reduction initiatives in this review highlighted the possibility of specialised teams of healthcare practitioners assisting in the management of challenging behaviour. The examples provided were (a) the formation of teams with high-level training to defuse crises situations (Gaskin et al., 2007) and (b) the collocation of a PAPU with the Acute Adult Mental Health Inpatient Unit in the RMH ED to provide access to acute psychiatric beds when necessary (Browne et al., 2011). Collaborations between skilled mental health practitioners and their colleagues in non-psychiatric areas of the health system have the tendency to increase safety in behavioural emergency situations.

Another example of a safety-enhancing initiative is the implementation of a rapid-response team for behavioural issues (Loucks et al., 2010, Pestka et al., 2012). This solution to managing challenging behaviour is built on the model of medical rapid-response teams, which have had broad appeal among healthcare organisations even though the evidence for the effectiveness of these teams is quite mixed (Chan et al., 2010). In one large healthcare organisation in the mid-western US a behavioural emergency response team (BERT) was established. The members of the team included a psychiatric registered nurse (to assess and recommend interventions, assist in the development of a plan for managing people's behavioural needs, facilitate debriefings and assess the effectiveness of interventions), a psychiatric physician (to make recommendations for care including possible administration of emergency medications or transfer to a psychiatric unit) and at least one security officer (to help de-escalate situations, including the provision of physical assistance). The activation criteria for the BERT comprised:

- a staff member being worried about a person's behaviour
- threats or perceived threats against self, another person or property
- sexual threats, issues or assaults or any other unwanted physical contact (for example, spitting or intentional exposure by the person of bodily fluids)
- concerns about behaviours related to a person's placement in a 72-hour (involuntary) hold
- disruptive behaviour upsetting the unit function (p. 337).

Although some data on BERT are available, no rigorous evaluations of rapid-response teams for behavioural issues seem available in the literature.

Recognising and responding to clinical deterioration

For some people, clinical deterioration can promote anxiety aggression (Ferns, 2007). Recognising the early signs of clinical deterioration, therefore, may not only facilitate appropriate responses to arrest the deterioration, but may also reduce the likelihood of people behaving aggressively. To improve the recognition of, and response to, clinical deterioration in hospitals and other acute settings, ACSQHC undertook a program of work that culminated in the Health Ministers' endorsement of the *National consensus statement: essential elements for recognising & responding to clinical deterioration* (ACSQHC, 2010).

The *National consensus statement* provides guidance on recognising and responding to clinical deterioration in Australian acute healthcare facilities. The statement applies to all patients, including those receiving care for mental health issues. The guiding principles of the statement are provided in Figure 7.

Figure 7: Guiding principles of Australia's *National consensus statement* on recognising and responding to clinical deterioration

1. Recognising patients whose condition is deteriorating and responding to their needs in an appropriate and timely way are essential components of safe and high quality care.
2. Recognition and response systems must apply to all patients, in all patient care areas, at all times.
3. Primary responsibility for caring for the patient rests with the attending medical officer or team. Recognition and response systems should therefore promote effective action by ward staff and the attending medical officer or team. This includes calling for emergency assistance when required.
4. Effectively recognising and responding to deterioration requires appropriate communication of diagnosis, including documentation of diagnosis in the health care record.
5. Effectively recognising and responding to deterioration requires development and communication of plans for monitoring of observations and ongoing management of the patient.
6. Recognition of and response to deterioration requires access to appropriately qualified, skilled and experienced staff.
7. Recognition and response systems should encourage a positive, supportive response to escalation of care, irrespective of circumstances or outcome.
8. Care should be patient focused and appropriate to the needs and wishes of the individual and their family or carer.
9. Organisations should regularly review the effectiveness of the recognition and response systems they have in place.

Note: From ACSQHC (2010, p. 6)

The *National consensus statement* (ACSQHC, 2010) comprises eight elements. The first four elements relate to clinical processes: (a) measurement and documentation of observations, (b) escalation of care, (c) rapid-response systems and (d) clinical communication. The last four elements pertain to

organisational prerequisites: (e) organisational supports, (f) education, (g) evaluation, audit and feedback and (h) technological systems and solutions.

Several guides have been prepared that support the implementation of the *National consensus statement* (ACSQHC, 2010): *A guide to support implementation of the National consensus statement* (ACSQHC, 2011), *Standard 9: recognising and responding to clinical deterioration in acute health care, safety and quality improvement guide* (ACSQHC, 2012a) and five quick-start guides on the essential elements (ACSQHC, 2012b, 2012c, 2012d, 2012e, 2012f).

Pro re nata medications

Although the use of PRN medications is routine in many inpatient units both in Australia (Stein-Parbury et al., 2008) and overseas (Lindsey and Buckwalter, 2012, Stewart et al., 2012), the evidence base to support this practice is lacking (Chakrabarti et al., 2007, Lindsey and Buckwalter, 2012). The use of PRN medications is based upon clinical experience and habit, rather than empirical evidence and clear guidelines (Chakrabarti et al., 2007) and there are substantial variations in practice (Molloy et al., 2012). In their literature review Molloy et al. identified considerable differences in nursing practices with respect to the frequency, route, and timing of administration and the reason for administration. Recent research from Australia suggests that the use of PRN medications may also be dependent on factors such as ward leadership, the availability and promotion of clinical supervision, nursing models of care (for example, person-focused versus task-focused), government projects, seclusion and restraint reduction initiatives and the physical environments within facilities (Mullen and Drinkwater, 2011).

As well as a lack of published evidence that PRN medications produce positive short-term or long-term outcomes, there is evidence that PRN medications (a) substantially increase the risk of morbidity and potential mortality, (b) are inappropriately or unnecessarily used, (c), can result in higher than recommended dosages being administered, (d) can complicate the assessment of the efficacy of regularly scheduled medicines, (e) can result in polypharmacy and (f) are potentially physically addictive (Hilton and Whiteford, 2008). Although some attempts have been made in the UK (Baker et al., 2007) and Australia (Usher and Luck, 2004) to provide some direction for healthcare staff in the use of PRN medications, these have not gained sufficient traction as evidenced by recent calls from Australian researchers and clinicians in both psychiatry and nursing journals for best-practice guidelines to be developed (Hilton and Whiteford, 2008, Molloy et al., 2012).

Preventing and managing aggression in special populations

Children and adolescents

Several reviews have been published that can inform the development of strategies to prevent and manage aggression in children and adolescents in healthcare environments (Bor, 2004, Deshmukh et al., 2010, Hage et al., 2009). For psychiatric inpatient settings, Hage et al. recommended that a structured assessment of risk be undertaken with the purpose of understanding the triggers that may lead to a child or adolescent becoming aggressive. In such an assessment, several interacting factors may emerge, and it may not be easy to determine the extent to which each contributes to the likelihood of aggression. This information can be used to help children and adolescents manage situations in which they may have become frustrated or aggressive in the past. The information collected through the assessment can also inform the selection and use of evidence-based programs (focused on individuals or families) designed to have a long-term impact on aggressive behaviour (for example, interpersonal skill training, social-cognitive group therapy, massage therapy and parent management therapy).

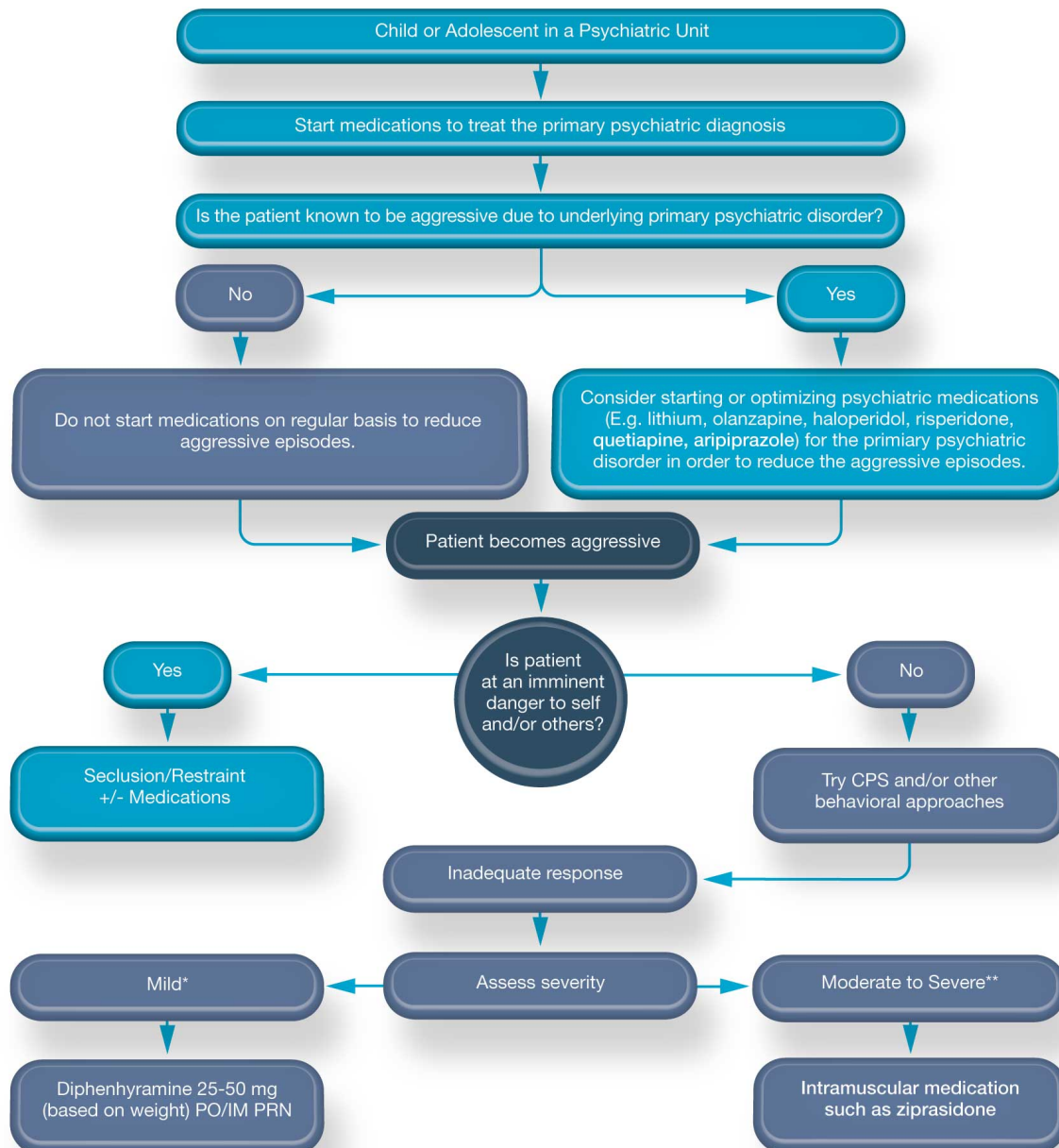
There is insufficient evidence available to develop comprehensive recommendations for the pharmacological management of inpatient aggression in children and adolescents (Deshmukh et al., 2010). Nevertheless, the research that has been conducted so far has shown that:

- standing use of oral lithium, haloperidol, olanzapine and risperidone were effective for aggression related to specific psychiatric diagnoses

- intramuscular ziprasidone and olanzapine administered PRN were effective for the rapid management of moderate to severe aggression
- oral or intramuscular diphenhydramine administered PRN were useful for managing mild aggression due to a placebo effect.

From the findings of research that has been conducted, Deshmukh et al. have developed a flow chart to illustrate their recommendations. This flow chart has been replicated in Figure 8. Although this flow chart will need to be refined as new evidence emerges, its content encompasses what is currently known about the pharmacological management of inpatient aggression in children and adolescents.

Figure 8: Recommendations on the pharmacological management of child and adolescent inpatient aggression



Note: Adapted from Deshmukh et al. (2010)

CPS = collaborative problem-solving

*Mild distress, no property destruction, no threatening behaviour

**Moderate to severe distress, patient exhibiting property destruction and/or threatening behaviour

Older adults

There is minimal evidence on the treatment of behavioural and psychological symptoms in people with dementia (RANZCP, 2009). Several reviews have been compiled, however, on the prevention and management of aggression in people with dementia (Cipriani et al., 2011, Enmarker et al., 2011, Finfgeld-Connett, 2009, Verkaik et al., 2005). Cipriani et al. advised that before initiating an intervention, the manifest behavioural issue of symptom must be identified and quantified with respect to its frequency and severity. Precipitating causes (especially those suggestive of medical issues such as pain) must be identified and eliminated first, because they may be indicative of a life-threatening problem. The assessment of aggressive behaviour should incorporate the collection of a comprehensive history (including a history of behavioural disturbances), mental status and physical examinations, laboratory data and neuroimaging studies. The approach to preventing and managing aggression should be individualised based on the particular circumstances of each person, with non-pharmacological and pharmacological treatments being available for use.

There have been few studies on non-pharmacological interventions for managing aggression in people with dementia. In one systematic review on the management of aggression and violent behaviour in people with dementia, Enmarker et al. (2011) found the following initiatives to be associated with lower levels of aggression: a release from indoor confinement, interpersonal approaches (for example, verbal diversion, which causes distractions), personalising people's bedrooms and respecting their privacy, and educating staff on person-centred approaches and having them apply what they had learnt. Although this research comes from the residential aged-care sector rather than emergency or inpatient environments, several of the strategies could be used in these other settings. For example, staff in psychiatric inpatient units could use person-centred approaches in their care of people with dementia.

These findings are supported in a second review of studies on the management of aggression in people with dementia or brain injury (Finfgeld-Connett, 2009). Nursing responses that reduced aggression included (a) normalisation (viewing aggression as part of dementia and brain injury), (b) person-centred care, (c), nurse–patient mutuality (working through issues with people, as opposed to doing things for and to them), (d) downplaying negativity and (e) thoughtful creativity (being reflective, imaginative and flexible in responding to people behaving aggressively). In contrast, inflexible routines may be counterproductive to reducing aggression.

Other reviews have highlighted the possibility of massage (Moyle et al., 2013) and pain management (Husebo et al., 2011) as effective ways of reducing agitated behaviours. Although initial findings are promising, there is insufficient evidence to suggest that massage is effective in reducing agitated behaviour associated with dementia (Moyle et al., 2013). Although pain should be adequately managed, there is no robust evidence to suggest that pain management reduces agitation in people with dementia (Husebo et al., 2011).

With respect to the pharmacological treatment of aggression, a wide range of options have been trialled (Cipriani et al., 2011). Although the treatment of agitation in dementia is a common off-label use for atypical antipsychotic medications, only small (but statistically significant) effects have been observed for aripiprazole, olanzapine and risperidone (Maher et al., 2011). Adverse events in older people taking these medications included an increased risk of death (number needed to harm [NNH] = 87), stroke (NNH = 53 for risperidone), extrapyramidal symptoms (NNH = 10 for olanzapine; NNH = 20 for risperidone) and urinary tract symptoms (NNH from 16 to 36). The RANZCP has published a practice guideline in this area (RANZCP, 2009) and suggests that weighing the advantages and disadvantages of these treatments is a challenging task.

There is also evidence that Yokukansan (a traditional Japanese medicine) has a positive effect on the behavioural and psychological symptoms of dementia (Matsuda et al., 2013). In their meta-analysis, Matsuda et al. showed that Yokukansan was more effective than usual care in the treatment of behavioural and psychological symptoms of dementia.

Resources available to assist in the prevention and management of aggression

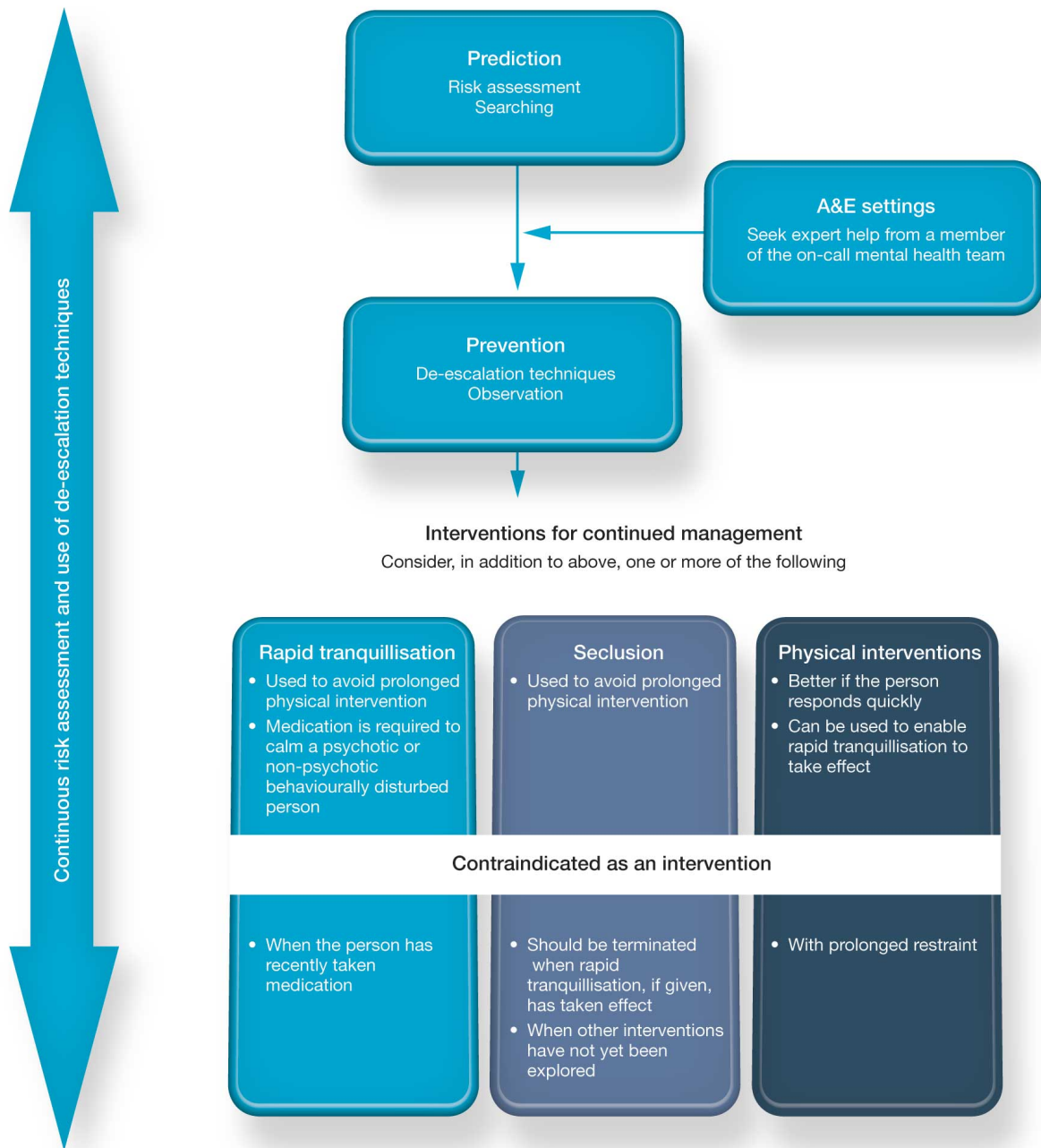
Resources are available to assist health services in the prevention and management of aggression. Relevant documents in the Victorian context are *Preventing occupational violence in Victorian health services: a policy framework and resource kit* (Department of Human Services, 2007) and *A handbook for workplaces: prevention and management of aggression in health services* (Worksafe Victoria, 2009). These two documents are available from the Department of Health and Worksafe Victoria websites, respectively.

The Royal College of Nursing (2005) in the UK has developed an evidence-based guideline for the short-term management of disturbed and violent behaviour in psychiatric inpatient settings and emergency departments. This guideline includes an integrated care pathway that is represented as the algorithm replicated in Figure 9.

Summary

Several mainly non-pharmacological approaches to preventing and managing aggression without seclusion and restraint appear in the literature. Some of the strategies reviewed in this section are explicitly featured in the model of restraint and seclusion reduction initiatives presented in Figure 2 (for example, sensory experiences) whereas others are subsumed within broader themes (for example, de-escalation as a component of staff training). Although caution must be exercised when drawing upon this relatively small collection of literature, there appears to be support for the use of de-escalation, limit setting, observation, sensory approaches, specialised teams and recognising and responding to clinical deterioration for preventing and managing aggression. These strategies form part of the maintenance of safe, therapeutic environments that value respect for people receiving care, the use of intersubjective communication and the ability to be fully present in the situation. There is the potential for PRN medications to have severe adverse effects. Guidelines need to be developed to underpin their use.

Figure 9: Royal College of Nursing algorithm for the short-term management of disturbed or violent behaviour



Note: From Royal College of Nursing (2005, p. 19)

Document analysis: local Victorian public mental health services

Mental health services in Victoria use a broad range of approaches to direct and guide staff in the use of restrictive interventions. Expectations of staff tend to be set in guidelines and procedure documents rather than in policies. No standards were submitted for review.

Policy themes

Just as mental health services use different levels of documents in setting expectations for staff, they also differ with respect to the content areas of their policies. One organisation had policies on aggression management, midazolam and restraint, for example, and another had a policy on seclusion.

The analysis of the themes within 22 policies on restrictive interventions established 26 themes (see Table 7) that can be grouped as follows:

- authorised use of restrictive interventions (five themes)
- the care of consumers (eight themes)
- a position on violence (one theme)
- staff (three themes)
- practicalities of the use of restrictive interventions (nine themes).

The most prominent themes in the policies were:

- using restrictive interventions as measures of last resort
- maintaining people's dignity
- observing people's rights
- meeting legislative requirements.

Chief Psychiatrist's guidelines and the guidelines and procedures of Victorian mental health services: a comparison

The guidelines and procedure documents of 17 mental health services were compared with the Chief Psychiatrist's guidelines for mechanical seclusion and restraint (Chief Psychiatrist, 2006, Chief Psychiatrist, 2011).

Mechanical restraint

Of the 17 mental health services, 11 submitted guideline and procedure documents that were suitable for comparison with the Chief Psychiatrist's (2006) guideline on mechanical restraint. The summary of the analysis of these documents is shown in Appendix C (see Table C1). All documents referenced the Chief Psychiatrist's guideline and most referred to the *Mental Health Act 1986*¹ (Vic.). Although some documents resembled the Chief Psychiatrist's guideline more closely than others, all showed good coverage of the contents within the guideline. Omissions from many of the documents include:

- specifying the people to whom the guidelines/procedures apply (possibly omitted because the documents apply to all consumers receiving care)
- clinical considerations relating to recently admitted persons, second opinions, and prescribing and use of medication (these issues may be dealt with under other, broader clinical governance and medication management documents)
- persistently disturbed or treatment resistant behaviour
- informing the person of the decision to use restraint and providing reassurance of safety
- ensuring sufficient staff are available to apply restraints

¹ Victoria's mental health legislation is currently undergoing reform. All references to the Mental Health Act in this document refer to the Act that was current at the time that this research took place (1986).

- developing a patient management plan covering diagnosis, assessment of clinical need, anticipated outcomes, identified risks, and strategies to manage those risks (care plans were often mentioned in documents, but these aspects of management plans were not often explicit)
- the need for a monthly report to be forwarded to the Chief Psychiatrist.

Some of these omissions may be covered in other documents (for example, other clinical guidelines and procedures, or forms).

Seclusion

Of the 17 mental health services that submitted documents for review, guidelines and procedures on seclusion practices were received from 10 services. The comparison between the contents of the Chief Psychiatrist's (2011) guideline on seclusion and the contents of guideline and procedure documents of Victorian mental health services is shown in Appendix C (see Table C2). In six documents the Chief Psychiatrist's guideline on seclusion was cited or referenced, whereas the other four documents referred to earlier versions of the guideline. Whereas some documents had good coverage of the contents of the Chief Psychiatrist's guideline (one service's document consisted almost entirely of verbatim text from the Chief Psychiatrist's guideline), others contained minimal amounts of the detail within the guideline. Some of the material not featured in mental health service documents on seclusion (for example, training requirements, and prescribing and administering medication), would probably be covered in other documents. Common omissions from documents on seclusion, however, include:

- detailed reference to training regarding prevention, early intervention and seclusion
- mention of the *Charter of Human Rights and Responsibilities Act 2006 (Vic.)*
- the involvement of consumers and families in care
- the use of advance safety plans for seclusion episodes
- practices when there is a risk of suicide or self-harm
- prescribing and administering medication
- the necessity for second opinions
- the review of voluntary patients
- details on medical examinations
- details on nursing observations, especially when people have been administered large doses of medication
- information about communication within treating teams
- providing people with choice about the staff member with whom they would like to discuss their experience
- consideration of the sensitive reintegration of the patient into the general inpatient milieu
- people who may have special needs
- operational and systems review
- mention of quality improvement activities.

Table 7: Themes present in policies and in statements of purpose contained in mental health services' guidelines and procedure documents

Theme	Indicative contents of theme	Policies	Guidelines/ Procedures
Authorised use of restrictive interventions			
Risk minimisation	Staff must manage safety within healthcare settings through risk identification, communication and the enhancement of ward environments.	A, E, M	B
Restraint minimisation	Staff are committed to minimise all forms of restraint.	M, P	B, N, Q
Restrictive interventions as measures of last resort	Restraint (manual, mechanical or chemical) and seclusion are justified in circumstances when alternative measures have been unsuccessful and the use of restrictive measures is needed to maintain safety (for example, to prevent potential violence, accidental injury, self-harm or absconding).	A, C, E, F, G, M, O, P	B, I, J, L, N, Q
Cost–benefit analysis	The anticipated benefits of restrictive interventions need to be weighed against potential harms when considering their use.		D
Transportation	Staff are authorised to use the force considered necessary to safely transport a scheduled mental health consumer to a mental health service for admission.	A	
The care of consumers			
Dignity	Staff must maintain the dignity of consumers who are agitated or aggressive.	M	A, C, D, I, L, N, Q
Special considerations	Staff are to be gender sensitive and sensitive to the needs of Aboriginal and Torres Strait Islander people, people of culturally and linguistically diverse backgrounds (cultural competence), people with disabilities, people with histories of sexual abuse (trauma-informed care) and elderly people.	A	B
Rights of consumers	Consumers have the right to self-determination and to receive care in a therapeutic environment that is free from aggression and violence.	A, E, G, M, O	C, D, L, N, Q
Risk assessment and management	Staff are to identify risks, manage those risks and as far as practicable eliminate the risks. Risk assessments conducted with consumers should be documented in their medical records.	A, C, M, N, O	B, I
Psychosocial principles	Staff are to provide care that is underpinned by psychosocial principles such as person-centred care, recovery and collaborative therapy.	E	
Care plan	A care plan must be commenced for restrained consumers.	A	
Responsibilities	The medical officers are designated as responsible for making decisions regarding whether or not consumers are restrained. Nurses should participate in this decision-making process and work with medical officers on deciding upon follow-up care and evaluation of outcomes. Senior nurses may make some restrictive intervention decisions in an	A, O	B, L, M

	emergency.		
Legislation	Staff are expected to be aware of, and practice in ways consistent with, current legislation.	A, E, F, G, O	B, I, J, L, M, N, Q
Position on violence			
Zero tolerance	Staff must work towards a culture of zero tolerance for violence.	A	J
Staff			
Rights of staff	Staff have the right to work in a safe environment that is free from occupational violence.	A, N, O	B, I
Training	Staff must participate in regular training on creating safe environments (communication, de-escalation, restraint and self-defence). Training may also be mandated on observing consumers who have been restrained.	A, N	B, J, K
Calmness	It is essential that staff remain calm when working with children.	M	
Practicalities of the use of restrictive interventions			
Restraint type	Staff must only use types of restraint that are approved for use.	A	M
Observation – manual and mechanical restraint	Staff must supervise consumers during periods of restraint (for example, visual checks undertaken every 15 minutes).	A	B, N
Monitoring – chemical restraint	Staff involved in monitoring consumers who have been chemically restrained must be skilled in administering basic life support and have sound knowledge of local emergency procedures. [Please note that chemical restraint is not considered acceptable in mental health settings in Victoria.]	C, M, P	
High-dependency unit care	Consumers presenting with higher levels of risk will receive care in high-dependency units, where they will receive greater levels of intervention and monitoring.	E, F	C
Duration of restrictive interventions	Restrictive interventions should be as brief as possible.	G	M
Do no harm	Staff must ensure that risks are minimised and harm does not come to consumers who are subjected to restraint.	G, P	Q
Documentation	Staff must document decisions regarding the use of restrictive interventions.	A	B, N
Debriefing	Staff must encourage and provide access to debriefing sessions for consumers and their family members.	O	
Maintenance	Staff must clean, check and, as required, replace restraint devices.	A	

Note: A to Q represent pseudonyms for the 17 mental health services that submitted documents for review.

Appendix A: Features of interventions that have been effective in reducing the use of seclusion – findings from the Gaskin et al. (2007) review

Table A1 describes the 17 features of effective interventions to reduce seclusion as detailed in an earlier literature review (Gaskin et al., 2007). This information formed the basis of the section entitled 'Literature review: reducing and eliminating seclusion and restraint', where it has been updated with the evidence presented in Appendix B.

With respect to the efficacy of these features in reducing seclusion, the design of the studies prevents conclusions regarding causation to be drawn. Also, because the interventions typically combined multiple features, it is impossible to determine which features may be more important than others in producing change. The weight of the evidence, however, suggests that the interventions described in the studies reviewed by Gaskin et al. (2007) were effective in reducing the use of seclusion. Reductions in the use of seclusion were reported in 15 of the 16 papers included in this review.

Table A1: The 17 features of effective seclusion reduction interventions identified in Gaskin et al. (2007)

Features originating externally to mental health services
<p>State support – frequent licensing and contract monitoring visits; discussions with facility staff about practice frameworks (for example, strength-based care) including the use of individualised crisis prevention planning tools; promoting interfacility support for staff at facilities in which culture change and seclusion reduction initiatives are ongoing; hosting statewide best-practice conferences on seclusion and restraint reduction; mandating that each facility has a strategic plan incorporating strength-based care; facilitating seclusion and restraint grant rounds; and linking with other state agencies that support people with histories of trauma</p> <p>State policy and regulation changes – tighter controls on when and how seclusion may be used; greater oversight of seclusion episodes through the appointment of an independent advocate for consumers; recovery approaches to caring for patients; and the requirement for post-seclusion debriefings with staff and consumers</p> <p>Leadership (external) – actions of chief psychiatrists or community advocates</p>
Features originating internally within mental health services
<p>Leadership (internal) – setting expectations of staff; publicly advocating for seclusion reduction; making seclusion reduction a priority; establishing how seclusion rates are to be reduced (for example, education, introducing audit tools to capture information about each restraint or seclusion episode and modelling crisis de-escalation techniques)</p> <p>Treatment plan improvement – establishing a facility-wide behavioural consultation team to have input into treatment plans from a behavioural perspective</p> <p>Examination of the practice contexts – establishing weaknesses within clinical environments using tools such as staff surveys, baseline data on the use of seclusion, interviews with staff and patients and observations of crisis events</p> <p>Staff integration – employing staff with experience in restrictive intervention reduction initiatives; and establishing an interdisciplinary committee to oversee the development and implementation of seclusion and restraint reduction initiatives</p> <p>Increasing staff-to-patient ratios – enabling staff to provide more sensitive care (for example, two licensed nurses and four psychiatric aids on a 32-bed unit)</p> <p>Monitoring seclusion episodes – collecting data on seclusion and restraint episodes for clinical, educational, managerial and media purposes</p> <p>Psychiatric emergency response teams – teams trained to defuse crisis situations</p> <p>Staff education – training focused on two main areas: implementing new models of care (for example, collaborative problem-solving) and alternative behavioural interventions (for example, verbal de-escalation)</p> <p>Monitoring patients – increasing the number of cameras in operation</p> <p>Pharmacological interventions – introducing second-generation antipsychotics occurred at the same time as some facilities were reducing the use of restrictive practices</p> <p>Working with patients as active participants in seclusion reduction interventions – briefing patients about restraint reduction goals; seeking their cooperation in the enforcement of ward standards; and allowing them to choose interventions to be used in the management of their aggression</p> <p>Changing the therapeutic environment – adopting new therapeutic frameworks for practice (for example, collaborative problem-solving, child-centred and family-centred care); increasing the frequency of staff communicating with patients about their needs and care; debriefing patients following the use of restrictive practices; and having patients request aromatherapy when feeling agitated</p> <p>Changing the facility environment – changing physical aspects of wards and extending ward visiting hours</p> <p>Adopting a facility focus – a general program to improve how mental health services operate involving regular staff meetings, monthly meetings with the community and engaging an external facilitator to analyse the root causes of ward issues and propose solutions</p> <p>Improving staff safety and welfare – enhancing the safety and welfare of staff, for example, by ensuring the most acutely unwell patients were not allocated to the same staff members and reporting patient assaults of staff to police</p>

Note: Adapted from Gaskin et al. (2007)

Appendix B: Studies on the reduction of restrictive interventions (2007–13)

Study	Facility	Intervention	Findings	Conclusion
Studies on seclusion and restraint reduction				
Ashcraft & Anthony (2008)	A mental health agency operating two crisis services (US)	The initiative included strong leadership direction, policy and procedural change, staff training emphasising recovery, consumer debriefing and regular feedback to staff on progress.	The larger crisis centre took 10 months to achieve a month of zero seclusions recorded and 31 months to achieve a month of zero restraints recorded. The smaller crisis centre achieved these outcomes in two months and 15 months, respectively. The yearly staff injury rate was static over the 58-month evaluation period for the large centre (dropping from nine to eight) and declined for the small centre (15 to five).	The intervention achieved long-term positive outcomes.
Azeem et al. (2011)	A child and adolescent psychiatric hospital (US)	Senior management established a vision to reduce restrictive interventions, made this goal a priority and articulated this vision to staff. Goals and targets were set. Staff received training from NASMHPD on six core strategies based on trauma-informed and strength-based care: (a) leadership towards organisational change, (b) use of data to inform practice, (c) workforce development, (d) use of seclusion and restraint reduction tools, (e) improving consumers' roles in inpatient settings and (f) rigorous debriefing techniques.	Comparing the six months prior to the intervention with the six months after the intervention, the numbers of restrictive episodes decreased from 93 (73 seclusions and 20 restraints involving 22 children and adolescents) to 31 (six seclusions and 25 restraints involving 11 children and adolescents).	The six core strategies that NASMHPD promote appear to be effective in reducing seclusion.
Borckardt et al. (2007)	Five inpatient units at a state psychiatric hospital (US)	The engagement model included changes to the physical characteristics of the therapeutic environment, trauma-informed care training, changes in rules and language (for example, not using terms like 'seclusion room' and 'take downs') and patient involvement in treatment planning. This intervention was implemented	Comparing the 13-month baseline phase with the three-month follow-up phase, there was an 82.3 per cent reduction in the use of seclusion and restraint.	The findings emphasise the importance of changing the physical environment (for example, painting walls with warm colours or using decorative throw rugs and plants) to achieve key outcomes.

		at the same time as a broader, organisation-wide initiative to improve patient–staff communication and patient satisfaction.		
Chandler (2012)	An inpatient unit at a community hospital (US)	Themes from informants about what led to reducing restrictive interventions fit with a structural empowerment model, and include: leadership creating opportunities for staff to develop new knowledge, information on trauma-informed care, support from leaders, resources for the unit and improved staff engagement with patients.	In the year before the changes occurred (2005), 27 episodes of restrictive interventions (17 seclusions and 10 restraints) were recorded. Over the next six years, between two and nine episodes were reported each year.	Using an empowerment model seems effective in reducing the use of restrictive interventions.
Cummings et al. (2010)	A university-affiliated acute public psychiatric facility for children and adults (US)	Nurses identified when patients were showing signs of distress, entered into dialogues with them and offered the use of a comfort room as a healthy, therapeutic, supportive and safe environment.	The findings of the efficacy of the comfort room in reducing seclusion and restraint was equivocal. Of the patients who responded to a Likert-scale question about their distress, however, 87 per cent reported reductions in distress following the use of the comfort room. Restrictive measures followed only 12 per cent of comfort room interventions.	Comfort rooms may reduce distress, but, on their own, may have minimal impact on the use of restrictive interventions.
Dean et al. (2007)	A child and adolescent inpatient tertiary-care psychiatric unit (Australia)	A comprehensive behavioural management program to reduce aggressive incidents featured staff training emphasising prevention and early intervention, individualised patient management plans and a standardised framework for behavioural management.	Comparing the six-month period before and after the intervention, there were reductions in the use of seclusion (from 10.7±10.2 to 0.3±0.5 times per month) and physical restraint (from 23.3±7.9 to 4.0±3.1 times per month). The use of closed time-outs increased, which meant that there was no change in the combined use of seclusion and closed time-outs. The number of aggressive incidents decreased (from 84.0±46.5 to 18.5±12.2 per month).	The intervention seems to have reduced aggression and resulted in staff using less restrictive practices. Staff appear to have used closed time-outs instead of seclusion.
Friedman et al. (2012)	A large public sector psychiatric hospital (US)	In an attempt to reduce the use of psychotropic and other ‘medical’ PRN medications, a database that tracked PRN use was disseminated weekly to clinical teams.	Comparing the four-month baseline period of the study (September to December 2008) with the last four months of results (September to December 2010), there were reductions in the use of psychotropic PRNs (348–642 to 202–268 per month), medical PRNs (175–279 to 72–140 per month), violence incidents (44–63 to 18–53 per month), seclusions (3–11 to 0–1 per month) and restraints (1–4 to 0–1 per month).	Although these findings are positive, there was little information about the dynamics within the organisation that facilitated this change. Staff were sceptical that restrictive interventions could be reduced and were reassured that the use of PRN medications when clinically indicated would not be discouraged.

Hellerstein et al. (2007)	A metropolitan academic psychiatric hospital with nine inpatient units (US)	The intervention included (a) decreasing patients' time in restraint or seclusion from 4 to 2 hours, (b) educating staff in identifying patients at risk of restraint or seclusion and early intervention to avoid crises and (c) using a questionnaire to capture information about patient preferences for dealing with agitation.	Comparing the 20 months before the intervention with the 67 months after it was implemented, the mean number of patients restrained per month was static (from 0.35±0.6 to 0.32±0.5 patients per month), the mean hours of restraint decreased (from 1.7±5.2 to 1.0±2.4 hours per month), the mean number of patients secluded decreased (from 3.1±1.4 to 1.0±1.1 patients per month) and the mean hours of seclusion decreased (from 41.6±52 to 2.7±4.5 hours per month. Adverse outcomes (absconding, staff injuries and fights) also decreased.	The intervention was successful, particularly in reducing seclusion, with results maintained over five years.
Keski-Valkama et al. (2007)	Psychiatric hospitals (Finland)	Legislative changes were made to clarify and restrict the use of seclusion and restraint over a 15-year time span (1990–2004).	Although the number of restrictive practices declined over the period (as did the number of patients receiving care) the risk of being secluded or restrained remained constant.	On their own, legislative changes do not appear to be effective in reducing seclusion and restraint.
Lewis et al. (2009)	A psychiatric inpatient service within an academic tertiary-care medical centre (US)	Grounded in the public health prevention model, attention was paid to primary prevention (developing treatment environments that reduce conflict and enable early identification and treatment planning for high-risk patients), secondary prevention (interventions to minimise or resolve conflict and distress symptoms, such as personal safety plans, patient support sheets and comfort carts) and tertiary prevention (minimising the negative impacts of seclusion and restraint).	Each of the four units had decreases in the use of seclusion and restraint ranging from 20 per cent to 97 per cent over four years.	This intervention was effective in reducing restrictive interventions, but there was wide variation in outcomes among units.
Martin et al. (2008)	A psychiatric inpatient unit for school-age children (US)	Staff were trained in collaborative problem-solving – a manualised, therapeutic program for working with aggressive children and adolescents. Clinical chart documentation was revised and updated in line with principles of collaborative problem-solving.	Data were collected for the three years prior and one and a half years following the six-month intervention. There were reductions in the use of seclusions (from 432 to 133 episodes per year) and restraints (from 263 to seven episodes per year). Time spent in seclusion and restraint also reduced.	The findings appear to support the use of this therapeutic intervention in reducing seclusion and restraint.
Pollard et al. (2007)	A secure acute mental health unit within a Veterans Affairs facility (US)	Senior unit leaders and facility leaders promulgated the JCAHO 2000 standards for utilisation of seclusion and restraint for behavioural health reasons, discussed with	Data were collected over 46 months, with the new standards introduced in the 28 th month. The mean length of seclusion and restraint episodes dropped from pre-policy implementation (8.58±6.07 hours) to	The findings support the efficacy of these standards in producing reductions in restrictive practices.

		staff alternatives to seclusion and restraint, explored with staff concerns about new standards and provided positive feedback for the use of alternatives.	post-policy implementation (2.72±2.18 hours)	
Sees (2009)	A secure psychiatric unit within a Veterans Affairs medical centre (US)	The former Health Care Financing Administration put in place regulations that reduced the permissible uses of seclusion and restraint, mandated the public reporting of deaths and serious injuries from these interventions, and required face-to-face evaluations of patients by physicians or other licensed independent practitioners within the first hour of most of these restrictive practices. The policy stated that (a) restraint or seclusion should only be used in crises or emergencies when other interventions have failed to protect patients from injuring themselves or others (not for the convenience of staff or for punishment or retaliation, or instead of treatment programs), (b) seclusion and restraint may only be used in the presence of a registered nurse and only after an assessment of need has taken place, (c) the registered nurse must contact the patient's physician or the licensed practitioner immediately after the initiation of restraint or seclusion, (d) the attending physician must perform a face-to-face examination of the patient and write an order that documents the reason for the intervention, the type of restraint used and the time limitation, (e) this order will be limited to 4 hours and (f) assessment and reordering may occur every 4 hours.	Omitting the transition year (2000) and comparing the period before the intervention (1998–99) with the year after the intervention was implemented (2001–02), the percentage of patients who experienced restraint or seclusion dropped from 3.42 per cent to 0.98 per cent. There were reductions in the median averages of the time patients spent in restraint only (from 795 to 555 minutes), seclusion only (from 518 to 345 minutes) and seclusion and restraint (from 600 to 420 minutes).	Although the intervention was partially effective, staff may have needed more education, because 'being disruptive' was the most frequently documented reason for the use of seclusion or restraint.
Sivak (2012)	Inpatient units in a rural tertiary-care psychiatric hospital (US)	An interdisciplinary and facility-wide team developed and implemented the use of a comfort room as an alternative to seclusion and restraint with input from consumers. Goals were set to eliminate the use of seclusion and restraint in four months and to halve the number of assaults and self-injurious	Zero seclusions occurred in the four months before and four months after the implementation of the comfort room. There were minimal restraints in the four months before implementation, and zero restraints in the four months following. From limited data (eight months), there was a 23.4 per cent reduction in client-to-client assaults, a 48.1 per cent	The comfort room appears to have reduced client distress and aggression towards others. Seclusion and restraint appear to have been infrequently used prior to the use of the comfort room, and so this initiative had minimal impact on

		behaviours in the hospital.	reduction in client-to-staff assaults, and a 12.1 per cent increase in self-injurious behaviour. Feedback from a small number of clients indicated that they felt less distressed following their use of the comfort room.	the use of these restrictive practices.
Sivakumaran et al. (2011)	South Ward, an acute aged persons inpatient mental health unit at the Peter James Centre, Eastern Health (Australia)	Four factors were perceived to have reduced the numbers of seclusions and restraints: (a) leadership and support from management in nursing practices, (b) increased multidisciplinary team input, (c) renovations to the inpatient setting and (d) changes in treatment-related factors such as collection of behaviour management history and improving documentation, for example, inpatient files (p. 498).	The numbers of seclusions and restraints, and the numbers of patients experiencing these measures, reduced between 2005–06 and 2009–10.	This intervention appeared to be effective in reducing seclusion and restraint. A possible strength of the study was interviewing the nurse unit manager and the clinical director about their descriptions and perceptions of the changes introduced.
Swanson et al. (2008)	Two county-based mental health systems (US)	A manualised intervention to facilitate completion of psychiatric advance directives (F-PAD) incorporated statutory elements and involved semi-structured, guided discussion between trained facilitators and consumers about planning for future mental health treatment.	The completion of F-PAD was related to lower odds of coercive interventions being used (adjusted OR = 0.50, 95% CI = 0.26–0.96, $p < .05$).	Completion of F-PAD was associated with restraint reduction over a 24-month period. No specific details were provided on seclusion or restraint reduction.
Tarassenko et al. (2012)	A public psychiatric hospital (US)	Psychiatric rehabilitation (a holistic, multimodal, psychologically oriented approach to the treatment of severe mental illness) was replaced by a conventional, medical-institutional model of treatment.	Visual inspection of the graph allows the conclusion to be drawn that the psychiatric rehabilitation program reduced the frequency of seclusion and restraint. The use of these restrictive measures increased during the two-year transition phase, and rose further following the completion of the transition. Restraints and seclusions increased from under 10 per month (pre-transition) to over 70 per month.	The use of psychiatric rehabilitation programs within psychiatric wards appears to reduce the necessity for the use of seclusion and restraints.

Studies on seclusion reduction				
Berntsen et al. (2011)	Mental health inpatient unit for children and adolescents (Australia)	Several interventions were implemented over a 44-month period: staff training in seclusion, restraint and dialectical behaviour therapy, rewarding patients with greater freedom and more access to activities for behaving safely and appropriately, and structured exercise (five sessions per week) for all patients except those who were the most unwell. In addition, there was a new nurse unit manager and the commencement of a full complement of nursing staff.	The frequency of seclusions trended downward over time. There appeared to be an increase in seclusion rates over the most recent six-month period, however, when dialectical behaviour therapy was temporarily stopped.	Although these interventions appear to have reduced the use of seclusion, the individual effects of each intervention cannot be determined.
Georgieva et al. (2010)	A newly developed four-bed psychiatric intensive care unit (The Netherlands)	The new unit had (a) a 2:1 patient-to-nurse ratio during morning and afternoon shifts and a 4:1 ratio at night, (b) a recovery and rehabilitation focus, (c) training for staff focused on negotiating with patients instead of controlling their behaviour, (d) management that supported professional development, discouraged the use of restrictive interventions and monitored policies and procedures, (e) a treatment policy focusing on stabilisation and recovery approaches including therapeutic activities (for example, cognitive behavioural therapy with mentalisation and attachment theory), (f) close observation of patients and (g) improved physical facilities (personal alarms for staff, single rooms for each patient and recreational facilities).	The unit provided care for eight patients over a 28-month period. Before admission the patients had been hospitalised for 386 days on average (SD = 221) and had been secluded for 156 of those days on average (SD = 215). In the new unit, the patients spent 0.5 days (SD = 1) in seclusion during a mean stay of 349 (SD = 167) days. Staff did not use any alternative coercive measures.	This attempt at providing care in the least restrictive environment possible was successful.
Georgieva et al. (2013)	An acute ward within a psychiatric hospital (The Netherlands)	Patients were randomly assigned to two groups. When de-escalation techniques failed, agitated patients with risk of aggression were either (a) involuntarily medicated or (b) secluded (treatment as usual).	The use of involuntary medication reduced the risk of seclusion (RR = 0.51, 95% CI = 0.34–0.79, $p < .001$).	This study demonstrates that the use of one type of restrictive intervention (involuntary medication) can reduce the use of another (seclusion).
Lee et al. (2010)	A 30-bed acute inpatient unit comprising a low-dependency open ward and a locked	The intervention included: (a) the purchase and dissemination of sensory resources (for example, optic lamps and digital music	Of the patients with whom the safety tool was completed, 65 per cent had been secluded on a previous admission or on the current	This six-month pilot trialled interventions that appear effective in reducing seclusion and warrant further

	intensive-care psychiatric unit (Australia)	players), (b) the development of a two-page safety tool identifying stress triggers, warning signs and calming strategies to inform safety plans and (c) staff education on the sensory resources, the safety tool, and de-escalating and managing aggressive behaviour.	admission before the tool was completed, whereas 26 per cent had been secluded since completing the tool. Many patients identified different types of sensory modulation as preferred calming strategies.	investigation.
Noorthoorn et al. (2008)	Two psychiatric admission wards (The Netherlands)	<p>Multiple interventions in the experimental ward comprised the following: (a) a commitment by all personnel to reduce seclusion, (b) frequent team meetings to build team cohesion in dealing with aggression, (c) training aimed at preventing aggression and dealing with conflict, while restoring the relationship with the patient, (d) individual job coaching to supplement team training, (e) implementation of a proactive approach in detecting behaviour preceding aggression using information from the patient, the family and community nurses, which informed signalling plans (plans aimed at early detection of behaviour preceding aggression), (f) communication of clear boundaries and limitations with respect to acting out behaviour.</p> <p>In addition to the above: (g) following involuntary admission, the dangerousness criteria were re-evaluated within the context of the admission, (h) during a first admission, information was gathered to compile signalling plans, (i) staff valued patient agreement on the treatment and signalling plan as an important means to aid early detection of behaviour preceding aggression, (j) family participation was appreciated as a main component of treatment, (k) all staff members provided input into developing treatment plans, rather than being dominated by the medical discipline and (l) feedback was provided on the use of restrictive measures. The control ward was identical, but without these interventions.</p>	In the 29 months of data collection, there were significantly fewer seclusions in the experimental ward (n = 30; 4% of patients) than the control ward (n = 79; 11% of patients). Most of the seclusions in the experimental ward occurred in the first 12 months (n = 24), compared with the second 12 months (n = 14) and final five months (n = 1).	Although these findings are positive, there were some demographic differences between the two wards. Compared with patients in the control ward, patients in the experimental ward were seven years older, more likely to be married, more likely to have a depressive disorder but less likely to have a psychotic disorder.

<p>Quarashi et al. (2010)</p>	<p>A high-security hospital (UK)</p>	<p>Improvements were made to the organisational clinical governance framework, including in the use and transparency of information (analysing accurate information on seclusion and reviewing the findings in several fora within the hospital), the effective use of audit and peer reviews (discussing seclusion episodes at various meetings), positive risk management (part of care plans, building on patients' strengths and emphasising recovery), patient involvement (advocacy provisions, increased collaboration between clinical teams and patients, implementation of advance directives for times of crisis and including secluded patients in therapeutic activity), education and training (neurocognitive approaches, psychosocial interventions and de-escalation) and enhanced clinical leadership (formation of a multidisciplinary hospital group to facilitate clinical governance improvements and monitor and reduce seclusion).</p>	<p>Seclusion rates fell from 52 episodes per month in January 2002 to 18 per month in January 2007. During the same period, major adverse incidents decreased by 63 per cent and moderate and minor incidents reduced by 40 per cent.</p>	<p>This set of changes appears effective in reducing seclusion and adverse incidents.</p>
<p>van de Sande et al. (2011)</p>	<p>Four acute psychiatric wards (The Netherlands)</p>	<p>Psychiatric nurses used five complementary risk assessment scales with patients (some were used daily, others weekly) and the findings were discussed during multidisciplinary and interdisciplinary team meetings.</p>	<p>The number of hours that patients spent in seclusion reduced significantly for the wards involved in the intervention compared to those wards providing treatment as usual; there was a 45 per cent reduction in the risk ratio for duration of seclusions. There were no significant differences in the numbers of seclusion episodes or secluded patients. The numbers of aggression episodes and aggressive patients also fell in the wards using the intervention.</p>	<p>The use of risk assessment instruments reduces the aggression levels within wards and staff reliance on seclusion.</p>
<p>Studies on restraint reduction</p>				
<p>Ashcraft et al. (2012)</p>	<p>A Recovery Innovations crisis centre (US)</p>	<p>A 'no force first' policy was implemented using several strategies: changing the mission and policies (from emphasising stabilisation to recovery), hiring peers (leading to a blended workforce with more than 50 per cent of staff</p>	<p>The centre had previously eliminated the use of seclusion and restraint. Over a two-year period, 0.45 per cent of people received chemical restraint ranging from 0 per cent to 1.27 per cent of people per month. These</p>	<p>The implementation of a policy consistent with the recovery framework appears effective in reducing the use of chemical restraint without increasing the need for other restrictive measures.</p>

		being peer support specialists), changing the staff culture (from a crisis culture to a person-responsive culture – achieved by allowing staff to air fears and concerns and replacing these with recovery values), selecting and orienting new staff (hiring staff who could work within a recovery framework, emphasising differences between recovery and non-recovery environments and reinforcing training on weekly basis), adopting compatible procedures (for example, implementing exhaustive processes before restrictive interventions could be used), emphasising recovery partnerships and emphasising healing environments.	percentages compared with a statewide average of 3.9 per cent.	
Barton et al. (2009)	A behavioural health unit in a private, not-for-profit community hospital (US)	Two members of the team attended three-day training on reducing seclusion and restraint delivered by the National Executive Training Institute. Training focused on the physical and emotional risks of restraint use, trauma theory, what has worked in other mental health services and what to expect when implementing reduction plans (for example, staff fear and resistance). There was high-level managerial support for the initiative, which established a restraint elimination vision, developed an action plan and created an implementation team involving staff at all levels. A curriculum was developed and staff received training on trauma, seeing patients as people and intervention skills and techniques. The seclusion room was converted to a comfort room.	In the four fiscal years before the intervention, the total number of patients restrained varied between five and 19. In the three fiscal years after the initiation of the project, the restraints per year were four, three and none respectively. Dosage rates per patient of sedative agents decreased during this period.	The shift to patient-centred, recovery-oriented and trauma-informed care principles appears to be effective in reducing the use of restraint.
Browne et al. (2011)	The Royal Melbourne Hospital (Australia)	A PAPU was collocated with the Acute Adult Mental Health Inpatient Unit to ensure that the RMH ED had access to acute psychiatric beds when necessary. A multidisciplinary team staffed the PAPU, which provided patients and families faster access to psychiatric medical	Compared to the three months before the introduction of the PAPU (January to March 2006), with the three months following the introduction of PAPU (February to April 2007) and a further three-month period (July to September 2007), the number of restraints in the ED reduced from 38 to 17 to five	Although not specifically designed as a restraint reduction initiative, the PAPU appears to be effective in reducing the use of restraints.

		staff than what occurred previously in the ED.	respectively. During the same period, there were decreases in length of stay, need for one-to-one nursing in the ED, total hours of restraint and number of unarmed threats (although there were increases in another unit).	
Fralick (2007)	A behavioural health partial hospitalisation program for children aged five to 15 years (US)	The intervention began with a literature review of restraint reduction and setting a goal to minimise physical restraint and protective holds. The rapid cycle improvement model was used, and all staff were involved through formal and informal large and small group meetings, plus notes in each other's' mail boxes. New staff training emphasised identifying risk factors for restraint use. Families were included in debriefings following restraints. Treatment plans were modified so they did not extend beyond the patients' skill level and create frustration that could then escalate. Regular reviews of patients with thinking errors took place.	Over three years the number of patients requiring restraint dropped from about 15 per cent of the patient population to five per cent of the population. The length of time patients spent being restrained also reduced.	Restraint use with children and adolescents may be reduced through identifying the circumstances that promote restraint use and implementing strategies to modify those circumstances.
Prescott et al. (2007)	A psychiatric and chemical dependency treatment facility providing inpatient treatment, partial hospital and intensive outpatient programs, an outpatient clinic, and substance abuse services for adults, adolescents and children (US)	A restraint response team was formed that activated following any instance of mechanical restraint and included the medical director (or their assistant), clinical supervisor and a nurse unit manager. Within 24 hours the team met with the patient's attending physician, the nurse unit manager and the clinician working with patient. The main question was what could be done to prevent further restraint of the patient. Rapid cycle process improvement was used to implement discrete changes over brief time periods.	Compared with the six-week baseline period, the total number of mechanical restraints declined 36 per cent during the first six weeks of the intervention. The number of physical restraints fell 44 per cent. The number of patients requiring restraint did not change substantially.	The use of a restraint response team appears to reduce the number of restraints, but has minimal impact on the percentage of patients requiring restraint.
Sclafani et al. (2008)	One hospital unit within a mental health service (US)	A university-based consultation team (comprising a board-certified psychiatrist, a postgraduate psychiatric nurse and a postgraduate psychiatric rehabilitation specialist) provided clinical training and case consultation. The main focus was on patients	Over the 16-month period, during which there was a continual presence of the consultation team, there was a reduction in the number of restraints per month from a range of 29 to 36, during baseline, to 0 at the end of the intervention period.	This external intervention appeared effective in producing changes to the ward, modifying conditions that may precipitate aggressive behaviours and promoting individualised responses to patient characteristics, needs and

		<p>with a dual diagnosis of developmental disability and mental illness. The five key initiatives were (a) a clinical review of critical cases involving multiple incidents, (b) mobilisation of the treatment team and ward staff (through morning briefings, full team membership, ward staff meetings and a new program coordinator), (c) staff training in person-centred approaches, special needs, positive reinforcement, strengths of existing programs and barriers to operationalising them, (d) program organisation/options (rehabilitation reorganised, meetings on managing ward life, human service assistant/technician small group project, calming room, a noise reduction project, consensus on the ward schedule) and (e) staff culture and supports (a clinical presence, staff coaching, commendations and support groups).</p>		<p>behaviours. These changes seem to have reduced the need for restraints.</p>
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Appendix C: Comparison of the Chief Psychiatrist's (2006) guideline with mental health service guidelines and procedures

Table C1: Comparison of the Chief Psychiatrist's (2006) guideline on mechanical restraint with the guidelines and procedure documents of Victorian mental health services

Features of Chief Psychiatrists' guideline	A	B	C	D	I	L	M	N	O	P	Q
Reference is made to the Chief Psychiatrist's (2006) guideline on mechanical restraint.	●	●	●	●	●	●	●	●	●	●	●
Key message											
Mechanical restraint is an extremely restrictive intervention that is subject to minimum statutory requirements defined and prescribed by the Mental Health Act.	●	●	●	×	●	●	×	●	●	●	●
The clinical decision to apply mechanical restraint should only be taken when other, less restrictive treatment options have been tried or considered and excluded as inappropriate.	●	●	●	×	●	●	●	●	●	●	●
At all times the safety and the personal dignity of the person being restrained must be protected.	●	○	●	●	●	●	●	●	●	●	●
Introduction											
This guideline applies to the use of restraint on all persons, regardless of age, who are receiving treatment for a mental disorder in an approved mental health service.	×	×	×	●	×	×	×	●	●	×	×
Once the decision has been made to apply mechanical restraint, careful clinical monitoring and review must be provided and the episode reported as required by regulation.	●	●	●	●	●	●	●	●	●	●	●
Each approved mental health service must have local policies and procedures governing the use and management of mechanical restraint that incorporates the standards set out in this guideline.	●	●	●	●	●	●	●	●	●	●	●
It is expected that staff will have a sound knowledge of policies, procedures and the Mental Health Act, and that the service will conduct local quality assurance activities on the use of mechanical restraint.	●	×	●	●	×	×	●	●	●	●	●
Legal considerations											
Who can be mechanically restrained? In an emergency, any person receiving treatment for a mental disorder at an approved mental health service may be mechanically restrained. However, if the person is not an involuntary patient, a forensic or security patient, consideration should be given as to whether the person meets the criteria for involuntary detention under the Mental Health Act.	×	×	×	×	×	×	×	●	●	●	×

<p>When can mechanical restraint be applied? Section 81(1)(a) of the Mental Health Act states that restraint can only be applied if that restraint is considered necessary: (a) for the purpose of the medical treatment of the person; or (b) to prevent the person from causing injury to themselves or any other person; or (c) to prevent the person from persistently destroying property. Wherever possible, alternative, less restrictive ways of managing the person should be used and mechanical restraint should be discontinued as soon as less restrictive management becomes possible.</p>	x	x	●	●	●	●	x	●	●	●	x
<p>How is mechanical restraint approved? Mechanical restraint is approved by the authorised psychiatrist.</p>	●	●	x	●	●	●	●	●	●	●	●
<p>How is mechanical restraint authorised? In an emergency, mechanical restraint may be authorised by the senior registered nurse on duty. A registered medical practitioner must be notified without delay that the patient has been mechanically restrained.</p>	x	●	●	●	●	●	●	●	●	●	●
<p>Clinical record documentation To satisfy the requirement for good clinical practice, the person's clinical record should demonstrate that the requirements of this guideline and local policies and procedures have been met.</p>	●	●	●	●	●	●	●	●	●	●	●
<p>When should mechanical restraint be ceased? The Mental Health Act requires that if the senior registered nurse on duty, a registered medical practitioner or the authorised psychiatrist believes that the mechanical restraint is no longer necessary, it must be removed immediately. The ending of mechanical restraint is an active clinical decision made by clinical staff.</p>	x	●	x	●	x	x	●	●	●	●	●
<p>What monitoring is necessary? The Mental Health Act requires that the restrained person must be: • under continuous observation by a registered nurse or registered medical practitioner (the person must be within visual range at all times) • reviewed at intervals of not more than 15 minutes by a registered nurse (the person's physical and mental wellbeing must be assessed as often as indicated, but at not more than 15-minutes intervals) • examined by a medical practitioner at not more than 4-hour intervals. The examination shall include a physical and mental status examination and risk assessment. The authorised psychiatrist may vary the intervals that the person is medically examined if they believe it is appropriate. If the authorised psychiatrist varies the period between medical examinations, they must notify the Chief Psychiatrist of the reason for the variation at the end of each month. The examination must not be extended if the person has been in the unit for less than 24 hours or if the person has received an injectable form of psychotropic medication in the preceding 24 hours.</p>	●	●	●	●	●	●	●	●	●	●	●
<p>Care planning While the application of restraint always requires planning, the extent to which planning can occur will vary from case to case. In an emergency, the opportunity to plan will be more limited and the application of restraint will be based on well-established and well-understood principles and practice. Where restraint is a planned intervention, it can be more formally planned.</p>	●	●	●	●	●	x	●	●	●	●	●

Clinical considerations													
Mechanical restraint should not be initiated unless a thorough medical assessment has occurred. In an emergency, mechanical restraint may be applied prior to a medical assessment. However, the medical assessment must be conducted as soon as possible.	●	●	●	×	●	×	●	●	●	●	●	●	●
<p>Recently admitted persons</p> <p>Occasionally, a patient is admitted to hospital who is profoundly psychotic, unable or unwilling to give coherent responses to questions and violently opposed to being physically examined. While this makes adequate assessment difficult, as thorough an assessment as possible must take place before medication is administered. Staff should be aware that the person may have ingested large amounts of alcohol or drugs prior to admission and/or may have unrecognised medical conditions such as epilepsy, diabetes or concomitant conditions such as chest infection or head injury that may pose a threat to life. Medical and nursing staff responsible for mechanical restraint must be aware of the clinical manifestations of alcohol and substance use or withdrawal, particularly in recently admitted persons.</p>	●	×	×	×	×	×	×	●	×	×	×	×	×
<p>Second opinion</p> <p>Where mechanical restraint is used for extended periods of time or on a recurrent basis, it is good clinical practice to obtain a second opinion or hold a case conference to review case management as soon as practicable.</p>	●	×	×	×	×	×	×	●	×	×	×	×	×
<p>Degree of vigilance</p> <p>Medical and nursing staff vigilance should reflect the seriousness of the intervention. Attention should be focused on the person's safety and dignity and the indication of any change in their physical or mental status.</p>	●	●	●	●	●	●	●	●	●	●	●	●	●
<p>Whether to use medication</p> <p>The decision to administer medication before or during the period of mechanical restraint involves balancing the risks and benefits of not administering medication. However, in circumstances where assessment is difficult, the risk of adverse effects from medication is greatly increased. Determinants include the safety and wellbeing of the person, the needs of ongoing management, achieving the best treatment outcomes in the shortest possible time and the safety of other patients and staff.</p>	○	○	○	×	○	○	●	●	○	○	○	○	○
<p>Principles of prescribing</p> <p>Medical staff prescribing for persons who are or may be mechanically restrained must be familiar with the possible adverse effects of medication prescribed and the cumulative effects of medication from repeated administration. Prescribing psychotropic medication should be in accordance with RANZCP guidelines. The use or withdrawal from benzodiazepines may heighten anxiety and aggression in some people. When prescribing PRN medications, the precise dose, route of administration, interval between doses and maximum dose within a specified period must be specified. Indications for the use of PRN medications must also be specified.</p>	○	○	○	×	○	○	●	●	○	○	○	○	○
<p>Persistently disturbed/treatment resistant behaviour</p> <p>Persons who repeatedly behave in a manner that places themselves or others at risk and who fail to respond to a full range of clinical interventions pose particular management problems. In these circumstances, a thorough review of the person's history, treatments attempted and their duration, doses of medication administered, and the person's response to these should be completed. This should be presented to a group of skilled professionals for consideration at a case conference. Subsequently, a detailed management plan should be developed that describes the behaviour, identifies wherever possible the precipitants, and outlines a graduated series of responses. The plan should include a strategy aimed at reducing the behaviour and the necessity for mechanical restraint.</p>	×	●	×	×	×	×	×	●	×	×	×	×	×

<i>Mechanical restraint – key points and processes</i>														
A decision is taken to apply mechanical restraint and a plan of how this is to be achieved is developed.	●	●	×	×	●	×	●	●	●	●	●	●	●	●
The person is informed of the decision, why it has been made and the level of observation and review that will apply. The person should be reassured that they are safe.	●	×	●	×	×	×	×	●	●	●	●	×	×	●
The application of the restraint should involve an appropriate number of clinical staff to ensure the safety of the person, staff and others.	×	×	×	×	●	×	●	●	●	●	×	●	●	●
The person is continuously monitored and reviewed as clinically appropriate at not more than 15-minute intervals, and is examined by a medical practitioner at not more than 4-hourly intervals.	●	●	●	●	●	●	●	●	●	●	●	●	●	●
A medical practitioner is notified without delay if the restraint has been applied in an emergency.	●	●	●	●	●	×	●	●	●	●	●	●	●	●
The authorised psychiatrist is notified as soon as practicable if the restraint is applied in an emergency.	×	×	×	●	●	×	●	●	●	●	●	●	●	●
A patient management plan is developed covering diagnosis, assessment of clinical need, anticipated outcomes, identified risks and strategies to manage those risks.	●	×	●	×	×	×	×	●	●	×	●	●	●	●
Dangerous items must be removed from the person and stored safely.	●	×	×	●	●	×	×	●	●	●	●	×	×	●
Removing mechanical restraint is a clinical decision based on meeting clinical needs, legal requirements and the person's need for privacy and socialisation.	×	●	×	●	×	×	●	●	●	●	●	●	●	●
The person must be provided with adequate food and fluids and appropriate assistance to meet their nutritional needs.	×	●	×	●	●	●	●	●	●	●	●	●	×	×
The person must be provided with adequate arrangements and assistance relating to elimination and personal hygiene. It is desirable that the person be accompanied to the bathroom for these purposes.	×	●	×	●	●	●	●	●	●	●	●	●	×	×
The person should have the opportunity for physical exercise as appropriate.	×	●	×	●	●	×	×	●	●	×	×	×	×	×
The approval for mechanical restraint must be signed by the person who authorised the restraint and the authorised psychiatrist.	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Clinical documentation must be completed.	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Debriefing of relatives, next of kin, primary carers, other patients and staff should occur.	●	●	●	×	●	×	×	●	●	●	●	●	●	●
A monthly report must be forwarded to the Chief Psychiatrist by the twentieth day of the following month in which the restraint occurred.	●	×	×	×	●	×	×	●	×	×	×	×	×	×

Note: A to Q represent pseudonyms for the 17 mental health services that submitted documents for review. No documents were received from mental health services E, F, G, H, J, and K that could be used for this analysis.

- = This feature from the Chief Psychiatrist's (2006) guideline on mechanical restraint is present in the guideline and procedure documents of Victorian mental health services.
- = This feature is (or could be) present in referenced supporting documents.
- ✘ = This feature is not detailed in the documents submitted for review.

Table C2: Comparison between the Chief Psychiatrist's (2011) guideline on seclusion and the guidelines and procedure documents of Victorian mental health services

Features of the Chief Psychiatrists' guideline	B	D	E	F	G	J	L	M	N	O
Reference is made to the Chief Psychiatrist's (2011) guideline on seclusion.	●	●	×	●	×	×	●	●	●	×
Key messages										
The decision to seclude a patient should be undertaken only when other, less restrictive interventions have first been tried or considered and excluded as inappropriate or unsuitable.	●	●	●	●	●	●	●	●	●	●
At all times the safety and dignity of the person being secluded must be protected. Any interference with the person's rights, privacy, dignity or self-respect are to be kept to the absolute minimum necessary under the circumstances.	●	●	●	●	●	●	●	●	●	●
Staff working in inpatient units must have access to regular training and supervision on prevention and early intervention strategies to manage acutely disturbed behaviours, and on required standards of practice should restraint or seclusion become necessary.	●	×	○	●	×	×	×	×	×	●
Background and introduction										
Seclusion is an emergency intervention that may only be used if it is necessary to protect the health and safety of the person involved or the health and safety of others.	●	●	●	●	●	●	●	●	●	●
Legal context										
Staff must comply with the Charter of Human Rights and Responsibilities Act. Section 38 of the Charter requires all staff to act compatibly with the rights protected by the Charter and give proper consideration to relevant human rights when making a decision.	×	○	×	●	×	×	×	×	×	×
Staff should also have an understanding of when a right may be limited under s. 7 of the Charter.	×	○	×	×	×	×	×	×	×	×
A decision to use seclusion and restraint must be proportionate to the presenting circumstance, applied for the shortest possible time and be subject to regular review and monitoring. If the law permits the use of seclusion, particular attention must also be paid to the conditions of the person's seclusion, meaning the manner in which seclusion is carried out and how the person is treated.	●	●	●	●	●	●	●	●	●	●
Responsibilities of approved mental health services										
Each health service is required to develop local policies and procedures governing the use of seclusion and restraint within their approved mental health service.	●	●	●	●	●	●	●	●	●	●
These must incorporate the minimum standards set out in this guideline and should include service-wide policies for ensuring seclusion and restraint is used as a measure of last resort, and that the frequency and duration of seclusion episodes is kept to the minimum necessary.	●	●	×	●	×	×	●	●	●	×
Seclusion must not be used for staff convenience or because of staff shortages.										

A prevention and early intervention framework																				
Inclusion of consumers and families																				
On admission of a consumer to a mental health service, every effort must be made to routinely provide information to them and their carers about seclusion and restraint practices, particularly where the consumer has a history of, or potential for, aggression, or where there are concerns related to the safety of others. It is appropriate for staff to listen to the consumer's and carers' concerns about the use of restraint or seclusion and, wherever possible, ascertain carers' wishes regarding notification of seclusion, because such an intervention may impact on carers' intentions to visit the person.	●	×	●	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×
Care planning to minimise the risk of seclusion or repeat seclusion																				
Care planning should include an assessment on admission of the person's ongoing risk of harm to themselves or others, and attempt to identify proactive strategies to minimise the risk of acutely disturbed behaviours, restraint and/or seclusion or further seclusion. Care planning should include an assessment on admission of the person's ongoing risk of harm to themselves or others, and attempt to identify proactive strategies to minimise the risk of acutely disturbed behaviours, restraint and/or seclusion or further seclusion.	●	●	●	●	●	●	×	●	●	●										
Diagnosis and management of underlying conditions																				
The treating team should undertake a thorough review of the person's history, treatments attempted and their duration, and doses of medication administered and the person's responses. The review may be the subject of a case conference.	●	●	×	×	●	×	×	×	●	×										
A detailed management plan should be developed that describes the behaviour in question, identifies wherever possible the precipitating and exacerbating factors and outlines a graded series of responses. The plan should include strategies aimed at reducing the behaviour and the need for such restrictive interventions.	●	×	×	●	●	×	×	×	●	×										
Advance safety plans for seclusion episodes																				
For those who are at high risk of seclusion or who have been secluded in the past, a collaborative advance safety plan for seclusion may be useful. This should address patient concerns and vulnerabilities. For instance, a person with a history of a specific form of assault may become more agitated with physical restraint that reminds them of this assault, or may prefer oral rather than intramuscular medication when severely distressed.	×	×	●	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	●
Staff training and education																				
All direct care inpatient staff should be trained to ensure that seclusion and restraint are used minimally and safely.	●	×	●	●	×	×	●	×	×	×	×	×	×	×	×	×	×	×	×	●
Staff should be able to demonstrate an understanding of: <ul style="list-style-type: none"> • legislation governing the use of seclusion and restraint in Victoria • how consumers experience involuntary treatment, seclusion and restraint • underlying causes of aggressive or threatening behaviours • aggressive behaviours that may be related to a medical condition 	×	×	○	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×

<ul style="list-style-type: none"> • the impact of their own behaviours and attitudes on consumers • use of de-escalation techniques. 										
Seclusion practices										
When seclusion may be used										
The decision to use seclusion is a clinical one, to be taken after other, less restrictive options have been considered, tried or excluded.	●	●	●	●	●	●	●	●	●	●
Seclusion must be discontinued as soon as less restrictive management options become possible.	●	●	●	●	●	●	●	●	●	●
Where there is a risk of suicide, staff must always consider the use of one-to-one nursing care as an alternative to seclusion, which is likely to be counter-therapeutic in these circumstances.	×	×	×	×	×	×	●	×	×	×
Seclusion care planning										
<p>Seclusion care planning should consider the primary diagnosis and include an assessment of the person’s clinical needs, treatment objectives and outcomes, and consideration of an existing safety plan with sufficient detail to allow for effective continuing care.</p> <p>The plan should also include:</p> <ul style="list-style-type: none"> • identification of mental and physical health problems and risks and how they are to be managed • the time and frequency of medical examination and review in accordance with ss. 82(3)(a) and (b) of the Mental Health Act • details of bedding and clothing to be provided that is appropriate to the circumstances as required by s. 82(3)(c) of the Mental Health Act • details of how the person’s hygiene and toilet arrangements will be met as required by s. 82(3)(e) of the Mental Health Act • when the treatment plan is to be reviewed • details of how the person’s dietary needs are to be met as provided for in s. 82(3)(d) of the Mental Health Act. Fluid should be offered to the person at least every 2 hours and food at least every 4 hours, except overnight when this may not be desirable. It may be appropriate to supply the person with a plastic cup and water container. A fluid balance chart should be commenced for a person who has been secluded for more than 4 hours. 	●	●	●	×	●	×	×	●	●	●
Clinical considerations										
<i>Medical assessment</i>										
Seclusion and restraint should not be initiated in an inpatient unit unless a thorough medical assessment has occurred.	●	●	×	●	●	●	●	×	×	×
In an emergency, seclusion and restraint may be applied prior to a medical assessment. In this instance the medical assessment must be conducted as soon as possible after the person is secluded.	●	●	×	●	●	●	●	×	●	×
Particular emphasis should be placed on seeking a history of the presentation from the person and their family, as well as other relevant or significant people. This should include information about the possible ingestion of alcohol, illicit drugs, over-the-counter medication and prescription medication that may have been ingested as a deliberate or accidental overdose. Information on medication prescribed should also be obtained.	●	×	×	×	●	×	×	×	×	×

The physical and mental state examination should be as thorough as the circumstances allow and should include an assessment of the risk to the person from deliberate or accidental self-harm.	x	x	x	x	●	x	x	x	x	x
<i>Whether to use medication</i>										
The decision to prescribe medication before or during the period of restraint or seclusion involves balancing the risks and benefits of not administering medication.	x	x	x	●	●	x	x	x	●	x
<i>Principles of prescribing</i>										
Medical staff prescribing for people who are or may be restrained or secluded must be familiar with the possible adverse effects of the medication prescribed and the cumulative effects of the medication from repeated administration.	x	x	x	x	x	x	x	x	●	x
Prescribing psychotropic medication should be in accordance with the RANZCP guidelines.	x	x	x	x	x	x	x	x	x	x
The use or withdrawal from benzodiazepines, tobacco or other drugs may heighten anxiety and aggression in some people. When prescribing PRN medications the precise dose, route of administration, interval between doses and maximum dose within a specified period must be specified.	●	●	x	x	x	x	x	x	●	x
Indications for the use of PRN medications must also be specified.	x	x	x	x	x	x	x	x	x	x
Consideration may be given to prescribing medication in intramuscular, liquid or wafer forms to minimise the risk of noncompliance or hoarding.	x	x	x	x	x	x	x	x	●	x
<i>Second opinion</i>										
Where seclusion is used for extended periods of time or on a recurrent basis, it is good clinical practice to obtain a second opinion or hold a case conference to review the patient's management as soon as practicable.	x	x	x	●	x	x	x	x	●	x
<i>Voluntary patients</i>										
In practice, the patient should be reviewed as soon as practicable to determine whether their legal status requires changing.	x	x	x	x	●	x	x	x	●	x
Authority and/or approval for seclusion										
Section 82(2)(b)(i) of the Mental Health Act requires that the authorised psychiatrist approve the use of seclusion. The role of the authorised psychiatrist in approving seclusion includes considering the continuing appropriateness of seclusion and stipulating the medication and physical health monitoring that may be required.	●	●	●	●	●	●	●	●	●	●
In the case of an emergency, the senior registered nurse on duty may authorise the use of seclusion and notify a registered medical practitioner without delay [s. 82(2)(b)(ii)]. In practice, the senior registered nurse on duty must also, in this circumstance, notify the authorised psychiatrist of the use of seclusion as soon as practicable. If the period of seclusion applied in an emergency includes a change of nursing shift it is good practice for a new authority to be completed to reflect that accountability for the nursing management of the patient in seclusion rests with the senior registered nurse on duty.	●	●	●	●	●	●	●	●	●	●
The period of seclusion may only be for the period of time specified in the approval.	x	●	x	●	x	x	●	●	x	x

Staff should be aware of the possibility that the person may have ingested significant amounts of alcohol or drugs prior to admission or may have unrecognised medical conditions such as epilepsy, diabetes or concomitant conditions such as chest infection or head injury that pose a threat to life. Medical and nursing staff responsible for the management of the person who is secluded must be aware of the: – medical history of the patient – clinical manifestations of alcohol and substance use or withdrawal – cumulative effect of prescribed medication administered prior to seclusion, particularly in those recently admitted.	x	x	x	x	x	x	x	x	●	x
Section 82(3A) of the Mental Health Act allows that the authorised psychiatrist may vary the intervals at which a person who is kept in seclusion is medically examined if the authorised psychiatrist thinks it is appropriate to do so.	●	x	●	●	●	x	x	●	●	x
A variation extending the 4-hourly review should not be done if the person has been in the unit for less than 24 hours or has received an injectable form of psychotropic medication in the preceding 24 hours.	x	x	x	x	x	x	x	x	●	x
Nursing review and monitoring										
Section 82(3)(a) of the Mental Health Act requires that a person who is kept in seclusion must be reviewed as clinically appropriate to their condition at intervals of not more than 15 minutes by a registered nurse.	●	●	●	●	●	●	●	●	●	●
If clinical assessment indicates the need for more frequent review, then this must occur.	x	●	x	●	●	x	x	●	●	●
Seclusion must be reviewed on a clinically appropriate basis for the person's condition. It is the joint responsibility of the medical and nursing staff to identify the level of observation required in each instance and to review this decision regularly.	x	x	x	●	x	x	x	x	●	x
A registered nurse (division 1) must conduct these reviews at intervals of no more than 15 minutes, although in some circumstances the person may need to be continuously observed for the whole or part of the period of seclusion. In these circumstances the monitoring nurse would be stationed outside the seclusion room, monitoring the person through the observation panel in the door.	●	●	●	●	●	●	●	●	●	●
The review process must include a clinical judgement about the need to enter the seclusion room to adequately monitor the person's vital signs and symptoms to ensure the person is clinically safe and comfortable. Regular review is also necessary to assess the person's mental and physical status and the continuing need for seclusion.	x	x	x	●	x	●	●	x	●	x
If large doses of medication have been given, the doctor should specify the observations needed to identify potential side effects. Periodic observation and examination of vital signs, muscle tone and level of consciousness from within the seclusion room may be necessary. Staff must be alert to the possibility that the patient who appears to be asleep may actually be unconscious	x	●	x	x	x	x	x	x	●	x
Assessment details to be included in each review should be specified in the person's management plan and may include: – physical observations, for example, respiration, pallor or cyanosis, posture, level of consciousness, motor activity, blood pressure and pulse – mental status observations, for example, pattern and content of speech, thought content, mood, affect, concentration, attention and level of motor activity.	x	x	x	x	x	x	●	x	●	●

Communication with the treating team																				
A senior member of the immediate treating team should be informed of the seclusion as soon as reasonably practicable in order to inform ongoing management decisions. The seclusion episode should also be discussed at the next clinical review.	●	×	×	●	●	×	×	●	×	×										
Prolonged or repeated episodes of seclusion should be the focus of a case conference where possible.	●	×	×	×	×	×	×	×	×	×	●	×								
Clear systems and processes should be in place to communicate to relevant clinical staff across successive shifts.	×	×	×	●	●	×	×	×	×	×	×	×								
Details regarding the reasons for the use of seclusion, the current plan and previous treatments provided should be clearly communicated at handover points and be available in the clinical record.	×	×	×	×	×	×	×	×	×	×	×	×								
Patients who fall asleep in seclusion																				
Where a person appears to be asleep in seclusion, clinical staff must be alert to and assess the level of consciousness and respirations of the person to exclude the possibility of an altered level of consciousness or respiratory distress.	●	●	×	×	●	×	●	×	●	×	●	×								
If a person is asleep following seclusion, clinical staff should assess whether it is appropriate to end the seclusion episode. It is not necessary to wake the person but leaving the door ajar and unlocked and allowing the person to continue sleeping, if it is safe to do so, would be appropriate. It must be easily identifiable to the person that the seclusion room door is open and they can exit of their own volition. Independent of whether staff believe it to be safe to cease seclusion in this manner, consideration should be given to the patient's possible reaction upon waking.	●	●	×	×	●	●	●	×	●	●										
The person should continue to be observed at frequent intervals. If there is a substantial continuing risk or doubt about an immediate or imminent risk to the person's health or safety, or that of others, the door should remain locked and the episode of seclusion continued until the person wakes and can be reassessed.	×	●	×	×	●	●	●	×	●	×										
Ceasing seclusion																				
Section 82(3b) of the Mental Health Act requires that if the registered medical practitioner, the senior registered nurse on duty or the authorised psychiatrist to immediately cease seclusion if they believe that it is no longer necessary.	●	●	×	●	●	●	●	×	●	×										
Ending a period of seclusion is a clinical decision made by clinical staff. Opening the door for toileting, food and fluids or medical examination does not constitute the end of a period of seclusion. Such breaks must not be used to remove the requirement for a 4-hourly medical examination.	●	●	×	●	●	●	●	×	●	●										
If a decision has been made to cease an episode of seclusion, and subsequent behaviour indicates the need to recommence seclusion, this requires a new approval or authority.	●	●	×	●	●	×	●	×	●	×										

Post-seclusion consumer support																				
Once the person is settled and willing to discuss the incident leading to restraint or seclusion, their understanding and experience of the incident should be explored, and the reasons why other interventions were deemed ineffective or inappropriate, and why restraint or seclusion was used, should be explained. Although restraint or seclusion may be necessary and used for sound clinical reasons, it is a potentially traumatic intervention that requires sensitivity and skill to manage.	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
The patient should be given a choice as to who they would like to discuss their experience with, wherever possible.	●	●	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×
Consideration must be given to the sensitive reintegration of the patient into the general inpatient milieu, because patients might consider seclusion as embarrassing or humiliating.	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×
Documentation and review																				
Authority for use of seclusion form																				
An approval of / authority for use of seclusion form (MH30) must be completed at the time of seclusion by the person approving or authorising the seclusion.	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	×
If the period of seclusion was applied in an emergency and included a change of nursing shift, a new authority must be completed so that accountability for the nursing management of the patient in seclusion rests with the senior registered nurse on duty.	●	×	×	●	●	×	●	×	●	×	●	×	●	×	●	×	●	×	●	×
Documentation in the patient's clinical record																				
The rationale for seclusion must be clearly documented in the patient's clinical record and discussed with the medical practitioner and authorised psychiatrist.	●	●	×	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	×
Clinical staff are expected to document both the reasons for seclusion and how they had formed the opinion that seclusion was needed.	●	●	×	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	×	×
The patient's clinical record should also include, where indicated, a patient seclusion management plan, as well as the medical and psychiatric assessment of the patient and a record of observations made during the period of seclusion.	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	×	×
The clinical record should contain a copy of the MH30 observation form that clearly shows the times the person was observed, any relevant observations and when the seclusion room door was opened to review or observe the patient in seclusion.	●	●	●	●	●	×	×	●	×	●	×	●	×	●	×	●	×	●	●	●
The review process must ensure the person is safe and comfortable, assess their mental and physical status and the need for continuing seclusion.	×	×	×	●	×	●	●	×	×	×	×	×	×	×	×	×	×	×	×	×
The following assessment details should be included and recorded in each review: – the person's behaviour, indications of pallor or cyanosis and respirations – a description of the person's medical and psychiatric condition at the commencement of seclusion – any observable changes in mental state and other observed behaviour, including settling or an increase in disturbed behaviour – any medication or treatment provided	●	●	●	●	●	●	●	●	●	●	●	●	●	×	●	●	●	●	●	●

<ul style="list-style-type: none"> – the response to treatment – when and how much food and fluids were provided – how and when the person’s toilet and hygiene needs were met – the rationale for any change in the seclusion management plan – the outcome of any medical reviews, including the 4-hourly medical review – if the authorised psychiatrist varied the requirement for the medical review, the rationale for this decision – details of second opinions or case management reviews – details of the post-seclusion consumer support provided. 																				
Special considerations																				
Persons with a history of trauma	●	x	●	x	●	x	●	x	x	●	x	x	●							
Gender safety and sensitivity	●	x	x	x	●	x	●	x	x	●	x	x	●							
Persons with an intellectual disability or acquired brain injury	●	x	x	x	x	x	●	x	x	●	x	x	x							
Aged persons	x	x	x	x	x	x	●	●	x	x										
Children and adolescents	x	x	x	x	x	x	●	x	x	x										
Communication with clients from culturally and linguistically diverse backgrounds	●	x	●	●	x	x	●	●	x	x										
Communication with clients with sensory impairment	x	x	x	x	x	x	●	x	x	x										
Operational and systems review																				
Following the cessation of a seclusion episode, a formal seclusion review meeting should occur as soon as possible with the unit manager, senior registered nurses and consultant psychiatrist at a minimum.	x	x	x	x	●	x	x	●	x	x										
Wherever possible, the patient and carers should be encouraged to participate in the relevant parts of the review process.	x	x	x	x	x	x	x	x	x	x										
The aim of the seclusion review meeting is to: <ul style="list-style-type: none"> • review the seclusion episode in relation to antecedents • identify preventative strategies trialled and the reasons for failure • review compliance with the Mental Health Act • review system-wide management issues that may need addressing to prevent further seclusion episodes • consider what else might have been done to prevent or minimise the disturbed behaviour • update clinical risk assessment and the safety or management plan. 	x	x	x	x	●	x	x	x	x	x										
Any systemic issues identified in the formal review are to be forwarded to the relevant safety and quality improvement committee for attention.	x	x	x	x	x	x	x	x	x	x										

Abbreviations

ACSQHC – Australian Commission on Safety and Quality in Health Care

BERT – behavioural emergency response team

CPS – collaborative problem-solving

ED – emergency department

NSW – New South Wales

NASMHPD – National Association of State Mental Health Program Directors

NICE – National Institute for Health and Care Excellence

PAPU – psychiatric assessment and planning unit

PRN – pro re nata

RANZCP – The Royal Australian and New Zealand College of Psychiatrists

SAMHSA – Substance Abuse and Mental Health Services Administration

WHO – World Health Organization

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