Reducing and Eliminating Seclusion in Mental Health Inpatient Services

An evidence review for the Health Quality & Safety Commission New Zealand

Te Pou o te Whakaaro Nui

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Evidence based workforce development

Part of the Wise Group

Published in June 2018 by Te Pou o te Whakaaro Nui.

Te Pou o te Whakaaro Nui is a national centre of evidence-based workforce development for the mental health, addiction and disability sectors in New Zealand.

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ISBN 978-0-908322-98-5

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Recommended citation:

Te Pou o te Whakaaro Nui. (2018). *Reducing and Eliminating Seclusion in Mental Health Inpatient Services: An Evidence Review for the Health Quality & Safety Commission New Zealand.* Auckland, New Zealand: Te Pou o te Whakaaro Nui.

Acknowledgements

This evidence review was prepared by Te Pou o te Whakaaro Nui (Te Pou) for the Health Quality & Safety Commission New Zealand. The purpose is to provide information about reducing the use of restrictive practice for the mental health and addiction quality improvement programme.

The review was undertaken by Jennifer Lai.

Input into the review was also provided by Caro Swanson and Lois Boyd (co-leads for Least Restrictive Practice, Te Pou), as well as Angela Gruar, Dr Angela Jury, Sandra Baxendine, Keri Opai, and Dr Mark Smith from Te Pou.

We would like to acknowledge the input from Professor Brian McKenna (Forensic Mental Health, Auckland University of Technology) and Dr Roz Sorensen (Health Quality & Safety Commission New Zealand).

Te Pou works together with services towards eliminating the use of seclusion and improving outcomes for people accessing services. If you have any questions about reducing the use of seclusion, visit our initiative page and contact the co-leads for this work at https://www.tepou.co.nz/initiatives/reducing-seclusion-and-restraint/102

Contents

List of figures

List of tables

Executive summary

Seclusion is "where a consumer is placed alone in a room or area, at any time and for any duration, from which they cannot freely exit" (Standards New Zealand, 2008a, 2008b). It is a restrictive practice that New Zealand's mental health inpatient services are working towards reducing, and eventually eliminating. These services provide specialist care for people with mental health and/or addiction problems, and are delivered in 19 district health boards (DHBs).

The purpose of this review is to provide up-to-date information about reducing restrictive practices (seclusion and restraint) to help inform Health Quality & Safety Commission New Zealand's Mental health and addiction quality improvement programme. This evidence review describes the current context for restrictive practices in mental health services, with a focus on the reduction of seclusion, and provides an overview of recent research and best practice resources.

Reducing seclusion in Aotearoa New Zealand

The reduction of restrictive practices continues to be a priority for mental health inpatient services because these practices can have a negative impact on people accessing services, as well as mental health staff. To improve the outcomes of people who access services and to ensure the safe provision of services, New Zealand's Health and Disability Services (Restraint Minimisation and Safe Practice) Standards (Standards New Zealand, 2008b) mandated the proactive reduction of seclusion and encouraged an overall least restrictive practices direction. Since 2008, Te Pou has worked with services to reduce restrictive practices through co-leadership with consumer leaders and the implementation of *Six Core Strategies for Reducing Seclusion and Restraint Use*© (National Association of State Mental Health Program Directors, 2008).

The proportion of individual people secluded in inpatient mental health services has almost halved since 2009, amidst a growing number of people accessing services (Ministry of Health, 2016; Te Pou o te Whakaaro Nui, 2017b). However, the reduction in seclusion rates began to plateau in 2013 (currently around 10–11 per cent of people accessing services are being secluded). Therefore, there is a need to identify opportunities for improvement, and review and refresh current plans and approaches.

Current best practice models and approaches

The *Six Core Strategies for Reducing Seclusion and Restraint Use*© (National Association of State Mental Health Program Directors, 2008) is considered current best practice in New Zealand and internationally. The framework takes a whole of system approach which emphasises the importance of leadership, use of data, development of staff, involvement of consumer leaders and people who access services, and debriefing, and offers a range of tools to assist with reduction (National Association of State Mental Health Program Directors, 2008).

As part of the *Six Core Strategies*©, quality improvement methodology is also considered current best practice. Quality improvement involves three key questions to guide improvement in healthcare services (Institute for Healthcare Improvement, n.d.). What are we trying to accomplish? How will we know that a change is an improvement? What changes can we make that will result in improvement? The UK provides several examples of reducing restrictive practices using quality improvement methods.

Safewards is another practice-based model which focuses on factors leading to seclusion or restraint episodes (Bowers, 2014), and is used in some parts of Australia and the UK. When this model was adopted and further developed in Victoria, it was adapted to reflect local workplace culture, such as consumer participation in services and language. Similarly, should Safewards be considered further in the New Zealand context it is recommended that significant adaptation is undertaken, and it should be considered as contributing to Strategy 4: Use of Seclusion and Restraint reduction tools, to effectively support reduction goals in the New Zealand practice setting.

Specific strategies and factors that supports reduction

Research indicates the following strategies help support the reduction of seclusion: consumer leadership and involvement, sensory modulation, trauma-informed care, and post-seclusion debriefing. Services should demonstrate authentic co-production and co-leadership with consumer leaders across every aspect of seclusion reduction initiatives as they enhance innovation, responsiveness and social networks. Moreover, peer support roles promote hope, empowerment, engagement, self-efficacy and social networks amongst people with mental health and addiction problems (Repper & Carter, 2011). Considered as best practices, sensory modulation is an approach that helps to reduce people's distress levels (Lloyd, King, & Machingura, 2014), and trauma-informed care recognises the widespread impact of traumatic experiences and need for responses to trauma to support recovery and avoid re-traumatisation (SAMHSA, 2014). Debriefing after every episode of seclusion is important because it provides an opportunity to validate the person's feelings, mitigate trauma, foster reflexive thinking and improve workplace culture (Goulet & Larue, 2016; Sutton, Webster, & Wilson, 2014).

Findings from implementation research emphasise the importance of strong leadership (including consumer and cultural leadership), organisational culture, and workforce development for effective implementation of least restrictive initiatives (Bryson et al., 2017; Goulet, Larue, & Dumais, 2017; Scanlan, 2010). Developing strong leadership, organisational culture and a competent workforce will require consideration of the factors outlined below.

- Leadership and organisational culture
    - Demonstrating strong leadership commitment to implement new policies and practices to effectively reduce the use of restraint and seclusion (Pollard, Yanasak, Rogers, & Tapp, 2007).
    - Ensuring consumer leadership and co-production to gather the unique perspectives of people accessing services (Boyle & Harris, 2009; Ministry of Health, 2017a).
    - Enhancing positive attitudes towards people in services and their complexities to support lower use of seclusion (Bowers et al., 2010; van Boekel, Brouwers, van Weeghel, & Garretsen, 2013)

- Developing a strong quality improvement culture within services to help engage staff. For example, see:
  - Mersey Care NHS Trust at http://www.merseycare.nhs.uk/about-us/striving-for-perfect-care/
  - East London NHS Foundation Trust at http://www.ihi.org/communities/blogs/lessons-for-building-a-strong-quality-improvement-culture?utm_campaign=tw&utm_source=hs_email&utm_medium=email&utm_content=60008500&_hsenc=p2ANqtz-8vj6Y-aZIVAmJf_wd37hWluq9xsQfiGrZh_WZW4-LkwGDGPLvBltP4cOD26cmkIHKr6OgqVSXfEgkB8NFCTqg6zPi9Nw&_hsmi=60008500
- Establishing 'change champions' to help widen the sense of responsibility, role model the desired change to others, and enable staff to challenge the established norms (Webster, 2013).
- Using people-centred language across the unit to reduce stigma towards people in services and influence decision-making amongst mental health nurses (Riahi, Thomson, & Duxbury, 2016).
- Using data to inform practice and challenging beliefs about seclusion, for example, user-friendly graphs were important for communicating data to staff and contributed to the success at Waiatarau Mental Health Unit (Waitemata District Health Board, 2011).

- Workforce composition and development
  - Reviewing staff mix to ensure teams contain a variety of experiences, abilities and perspectives to effectively work with people from different backgrounds. For example, years of experience (Janssen, Noorthoorn, van Linge, & Lendemeijer, 2007; Lindsey, 2009; Williams & Rachel, 2001), staff gender ratio (Daffern, Mayer, & Martin, 2006), and the physical stature of nurses (Doedens et al., 2017) have been shown to influence the use of restrictive practices.
  - Examining staffing levels and consumer-to-staff ratios which can influence the use of seclusion, even across different shifts in the same unit (Morrison & Lehane, 1995). For example, overcrowding and lower levels of staffing may be associated with higher use of seclusion (Brooks, Mulaik, Gilead, & Daniels, 1994; Janssen et al., 2007).
  - Developing verbal de-escalation and crisis management skills which are therapeutic and help to prevent the use of restrictive practices (Kontio et al., 2012).
  - Including cultural competency and cultural support roles to help services improve their responsiveness to and outcomes for vulnerable populations (Te Pou o te Whakaaro Nui, 2014b; Wharewera-Mika et al., 2013).

Another valuable source of information is the perspectives of staff and consumers which can help to identify effective strategies that are working well and opportunities for improvement (Brophy, Roper, Hamilton, Tellez, & McSherry, 2016). These perspectives often emphasise the importance of therapeutic communication and environments in reducing distress and the use of restrictive practices (Duxbury & Whittington, 2005; Ilkiw-Lavalle & Grenyer, 2003). Enhancing therapeutic communication and environments will require consideration of the factors outlined below.

- Therapeutic communication and relationships
    - Ensuring communication between staff and people accessing services is genuinely caring and meaningful (Gudde, Olso, Whittington, & Vatne, 2015), as distress often occurs when consumer-staff relationships are perceived as custodial rather than caring (Gudde et al., 2015).
    - Showing empathy influences experiences of care and conflict resolution for both staff and people accessing services (Gerace, Oster, O'Kane, Hayman, & Muir-Cochrane, 2018). The presence of nurses with higher levels of empathy is associated with reduced use of restrictive practices (Yang, Hargreaves, & Bostrom, 2014).
    - Involving consumers to provide knowledge of lived experiences and advocacy can help facilitate understanding and empowerment amongst people accessing services (Scholz, Gordon, & Happell, 2017).
    - Involving whānau to provide knowledge about people's personal histories, effective strategies to reduce distress, and advocacy (Kontio, Lantta, Anttila, Kauppi, & Välimäki, 2017).

- Therapeutic environments
    - Providing open ward environments without locked doors to help make the inpatient unit feel less restricting and reduce seclusion hours even after an initial rise in absconding (Beaglehole, Beveridge, Campbell-Trotter, & Frampton, 2017).
    - Providing private, spacious and quiet areas that are attractive and flexible to enhance privacy and autonomy, such as sensory or comfort rooms which can be specifically designed to help promote wellbeing and facilitate the reduction of seclusion (Cummings, Grandfield, & Coldwell, 2010).
    - Ensuring communal staff spaces are attractive, functional and private to help enhance job satisfaction and professional communication (Gum, Prideaux, Sweet, & Greenhill, 2012).
    - Minimising admission shock by identifying opportunities to make inpatient units feel more welcoming.
    - Providing opportunities to engage with meaningful activities in the unit which can positively engage people, support recovery, and minimise distress arising from boredom (Muir-Cochrane, Baird, & McCann, 2015).
    - Identifying routines, ward rules and time-of-day associated with the use of seclusion and restraints. For example, research indicates restrictive practices may be more common during day-shifts on weekdays, and less common during shifts in the evenings, nights and weekends (Leerbeck, Mainz, & Boggild, 2017), although different services may vary.
    - Re-thinking and being flexible with ward rules to help the inpatient unit feel less restricting and lower distress as well as use of restrictive practices (Alexander & Bowers, 2004).

Cultural approaches

The proportion of Māori and Pasifika peoples who experience seclusion is higher than other ethnic groups, making this a priority area for mental health services. There have been several reports undertaken primarily by Māori clinicians for the purpose of reducing seclusion and restraint, and improving health service delivery for

Māori people. Based on these reports, key cultural approaches for reducing seclusion amongst Māori people include enhancing Māori leadership, increasing tāngata whai ora and whānau participation, increasing Māori peer support staff, as well as cultural competency training for the workforce (McLeod, King, Stanley, Lacey, & Cunningham, 2017; Te Pou o te Whakaaro Nui, 2013a, 2014b; Wharewera-Mika et al., 2013).

There have been little or no resources that have specifically focused on reducing Pasifika seclusion. However, core competencies for working with Pasifika peoples from the Seitapu framework include working with families, language competencies, and knowledge of Pasifika cultural and spiritual values, as well as the organisation's responsibility to Pasifika peoples (Te Pou o te Whakaaro Nui, 2007).

Using data to inform quality improvement

As shown in Figure 1, seclusion data is available at national and DHB levels via Programme for Integrated Mental Health Data (PRIMHD) and the Key Performance Indicator (KPI) Programme. Restraint data is also available at the DHB level via Directors of Mental Health Nursing (DOMHNs), clinical leads or general managers. Analyses that can help to inform quality improvement include: comparisons between different ethnic groups, between inpatient units across DHBs, across shifts and time-of-day, and associations between seclusion and factors related to behavioural disturbances.

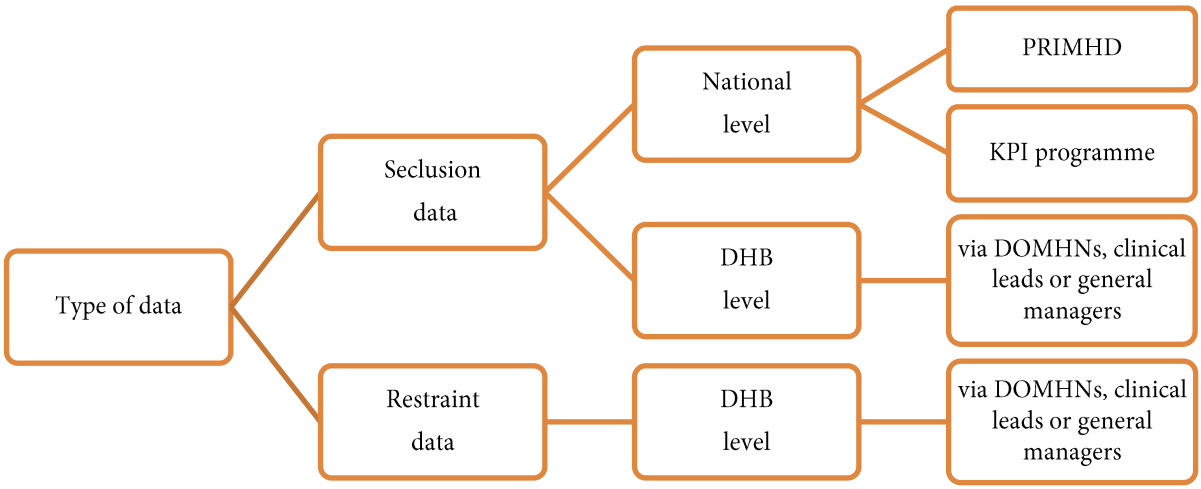

Figure 1. The availability of seclusion and restrain data in New Zealand.

Conclusion

To achieve the reduction and eventual elimination of seclusion, mental health inpatient services continue to work collaboratively towards eliminating the use of seclusion and improving outcomes for people accessing services. This evidence review shows seclusion reduction is a complex and long-term investment over time which involves many elements that can be considered for quality improvement projects. Quality improvement initiatives at a local level should be based on an assessment of current needs and rates of seclusion to identify priority areas and develop local plans.

Opportunities for improvement

Mental health services in New Zealand have achieved substantial progress towards reducing the use of seclusion. Achieving further reduction will involve identifying opportunities for improvement, and reviewing and refreshing current plans and approaches. Based on the findings of this review, key opportunities for improvement are outlined below.

- Reviewing and refreshing the implementation of initiatives that support seclusion reduction, including: evidence-based approaches or service delivery frameworks such as *Six Core Strategies*©; co-production and co-leadership; reduction tools such as sensory modulation; and multi-level, systemic strategies that improve workplace culture.
- Increasing responsiveness to the needs of Māori and Pasifika peoples by improving the implementation of cultural approaches.
- Using data for continuous quality improvement, and research aimed at identifying and understanding factors related to seclusion rates, such as: factors that influence variation between and within DHBs over time, changes in Māori and Pasifika seclusion over time, and the influence of substance use or psychosis on seclusion.

For more information

If you are interested in quality improvement activity relating to seclusion reduction, visit the following websites:

- Te Pou website or contact the co-leads for this work at https://www.tepou.co.nz/initiatives/reducing-seclusion-and-restraint/102
- Health Quality & Safety Commission New Zealand website at https://www.hqsc.govt.nz/our-programmes/mental-health-and-addiction-quality-improvement/

Background

New Zealand's mental health inpatient services are currently working towards reducing the use of seclusion, as well as implementing approaches that support least restrictive practices. These services provide specialist care for people with mental health and/or addiction problems, and are delivered in 19 district health boards (DHBs). The reduction of seclusion across mental health inpatient services was mandated in 2009 by the **Health and Disability Services (Restraint Minimisation and Safe Practice) Standards**. This Standard defines seclusion as "where a consumer is placed alone in a room or area, at any time and for any duration, from which they cannot freely exit" (Standards New Zealand, 2008a, 2008b). Following this, reducing and eliminating the use of seclusion was outlined as a priority action in ***Rising to the Challenge: The Mental Health and Addiction Service Development Plan 2012–2017*** (Ministry of Health, 2012b).

The purpose of this review is to provide up-to-date information for the **Mental health and addiction quality improvement programme** led by the Health Quality & Safety Commission New Zealand. Primarily about reducing seclusion, this evidence review also provides context regarding the use of other restrictive practices and an overview of recent research and best practice resources.

Seclusion and restraint have a negative impact on people

Tāngata whai ora

It is widely acknowledged that restrictive practices **negatively impact on the individual freedom and wellbeing** of people accessing services (Fisher, 1994; Mellow, Tickle, & Rennoldson, 2017). In addition, there has been a growing focus on **trauma-informed care** which helps increase awareness of the traumatic impact of seclusion. For example, the negative impact of seclusion has been described by both people with lived experience and their supporters in Australian research (Brophy et al., 2016).

> "[They]…put you in a cell that has no toilet and no air and leave you there for 10 hours and then you'll be cured, and it's not…you go in there seeking help and surviving the traumas in your life, but you end up having to cope with even more trauma. It's pointless." – lived experience perspective from Brophy et al. (2016)

A review of 11 studies found people who have been secluded often describe the following five aspects when talking about their experience (Mellow et al., 2017).

1. **Emotional impact of seclusion:** feelings of loneliness, fear, anger, sadness, frustration and powerlessness.
2. **Environmental experience of seclusion:** sensory deprivation, lack of autonomy, not being able to fulfil basic needs, sense of being locked up, and dehumanising.
3. **Cognitive and behavioural responses:** effects on psychological symptoms, such as hallucinations.

4. **Making sense of the experience:** perception of coercion and punishment, feelings of humiliation and dehumanisation, lack of prior knowledge and understanding of seclusion, and suggestions for improvement or alternatives.
5. **Interactions with staff:** perceptions of support (both positive and negative interactions) and compassion.

Staff and services

Restrictive practices can have a negative impact on the wellbeing of staff members involved, such as nurses who are a key professional group delivering mental health inpatient services (Happell & Harrow, 2010). **Nurses can experience conflicting feelings and ethical dilemmas** towards the use of restrictive practices, as well as reduction initiatives (Bigwood & Crowe, 2008; Happell & Harrow, 2010). Thus, the associations between nurses' attitudes towards the use of seclusion, emotional exhaustion, and job satisfaction are often complex (Happell & Koehn, 2011).

> "I felt instantly like a bully. I felt instantly like, I am awful, you know, look what I have done to this man. It is very easy to push my button and I feel like a bully and that is what I felt like. You know, that I had bullied him and I had been controlling and I had, you know all the things I hate." – staff perspective from Bigwood and Crowe (2008)

Compared to people who access services, mental health professionals are more likely to focus on the safety aspects of seclusion and restraint, and are less likely to express desirability and feasibility of eliminating these practices (Kinner et al., 2016). This tension between least restrictive and a mandated clinical risk-averse culture continues to influence staff attitudes. However, research has indicated least restrictive practices **do not increase risks to staff safety** (Te Pou o te Whakaaro Nui, 2014a). Moreover, a recent local study demonstrated that unlocking acute inpatient units did not significantly increase violent incidences (Beaglehole et al., 2017).

New Zealand's mandate to reduce seclusion

With the intent to improve the outcomes of people who access services and to ensure the safe provision of services, New Zealand's Health and Disability Services (Restraint Minimisation and Safe Practice) Standards (Standards New Zealand, 2008b) mandated the proactive reduction of seclusion and encouraged an overall least restrictive practices direction. The Standard defined four types of restraints that can limit a person's freedom of movement: personal restraint, physical restraint, environmental restraint, and seclusion (Standards New Zealand, 2008a).

> "Seclusion should be used for as short a time as possible and is best conceived as a safety mechanism rather than a therapeutic intervention or treatment. The decision to seclude should be an uncommon event, used as a final alternative and subject to strict review. The information in NZS 8134.2.3 is provided with the expectation that although seclusion is legal, services will be proactive in reducing and minimising/avoiding its use." (Standards New Zealand, 2008b, p. 6)

The Standard came into effect in June 2009. Later in 2012, *Rising to the Challenge* (Ministry of Health, 2012b) outlined reduction and elimination of seclusion as a priority action for mental health and addiction services. In addition, the priority actions to improve outcomes for Māori people included the reduction and elimination of seclusion and restraint (Ministry of Health, 2012b). While seclusion reduction is currently the main focus across DHBs, there is also work being done towards achieving national consistency in personal restraint training.

For more information about the government's mandate and guidelines for the use of seclusion and restraint see:

- **Health and Disability Services Standards**
  https://www.standards.govt.nz/sponsored-standards/health-care-services-standards/
- ***Rising to the Challenge***
  https://www.health.govt.nz/publication/rising-challenge-mental-health-and-addiction-service-development-plan-2012-2017
- **Mental Health Act, Section 71**
  http://www.legislation.govt.nz/act/public/1992/0046/latest/whole.html#DLM263469

International obligations

The national mandate to reduce the use of seclusion is related to wider international agreements and convention obligations. New Zealand is a signatory to the **United Nations Convention of Rights of Persons with Disabilities (CRPD)**, as well as the **Convention Against Torture and other Cruel, Inhuman or Degrading Treatment or Punishment (CAT)**. Under these conventions, mental health services and restrictive practices in New Zealand are subject to external monitoring by human rights experts of The Committee against Torture. The Committee makes recommendations for advancing progress towards the elimination of seclusion, and may consider complaints regarding violations of human rights.

For more information about New Zealand's human rights obligations, please visit:

- **Convention of Rights of Persons with Disabilities**
  https://www.un.org/development/desa/disabilities/convention-on-the-rights-of-persons-with-disabilities.html
- **Convention against Torture and other Cruel, Inhuman or Degrading Treatment or Punishment**
  http://www.ohchr.org/EN/ProfessionalInterest/Pages/CAT.aspx
- ***Thinking Outside the Box: A Review of Seclusion and Restraint Practices in New Zealand***
  http://www.seclusionandrestraint.co.nz/
- **Mental health and human rights**
  https://www.health.govt.nz/our-work/mental-health-and-addictions/mental-health/mental-health-and-human-rights-assessment

A focus on positive alternatives

Over the past 10 years, Te Pou o te Whakaaro Nui (Te Pou) has been working closely with DHBs to support local seclusion reduction initiatives, as well as providing resources to guide evidence-based practice. This has involved informing and supporting leaders and managers to actively lead out least restrictive practice approaches, and conducting regular visits to DHB mental health services.

In 2008, the early stages of this seclusion reduction initiative involved a survey of seclusion and restraint reduction work being undertaken in New Zealand. Findings indicated all DHBs had implemented initiatives that can directly or indirectly support the reduction of seclusion, of which six DHBs were well underway with initiatives specifically targeting seclusion reduction (Te Pou o te Whakaaro Nui, 2008).[1] The seclusion reduction initiative has been guided by the implementation of ***Six Core Strategies for Reducing Seclusion and Restraint Use***© (National Association of State Mental Health Program Directors, 2008). The *Six Core Strategies*© framework encompasses recovery-orientated approaches such as sensory modulation and trauma-informed care. Te Pou continues to work actively to identify opportunities for improvement to inform future practice development within the framework of the *Six Core Strategies*© *checklist: New Zealand adaptation.* As part of the seclusion reduction initiatives, a strong focus on authentic **co-production and co-leadership** with consumer leaders has been emphasised.

The engagement of DHB mental health services in moving towards a least restrictive practices direction has involved providing positive alternatives. A series of nationwide **sensory modulation training workshops** were undertaken between 2011 and 2012. Following this, a stocktake of sensory modulation implementation across DHBs was undertaken in 2017 to inform future planning (Te Pou o te Whakaaro Nui, 2017a). At the same time, Te Pou continues to support DHBs in implementing *Six Core Strategies*© (National Association of State Mental Health Program Directors, 2008) to help progress systemic changes that will sustain least restrictive practices.

The **Safe Practice Effective Communication (SPEC)** training programme and national collaborative was launched in late 2016. This recently updated training programme focuses on ensuring national consistency in personal restraint training that is based on best available evidence and supports least restrictive practice goals. Led by the Directors of Mental Health Nursing (DOMHNs) and involving a range of other key stakeholders, the programme has a strong emphasis on prevention and therapeutic communication skills and strategies aimed at reducing restrictive practices.

Pathways to Eliminate Seclusion by 2020 was a collaborative launched in March 2018 and is being led by the Health Quality & Safety Commission in partnership with Te Pou. This national project will adopt a quality improvement approach involving regionally-based learning opportunities and co-design workshops with a

[1] More information about the survey is available at https://www.tepou.co.nz/resources/survey-of-seclusion-and-restraint-reduction-initiatives-in-new-zealand/249

strong focus on culturally safe approaches. For more information, visit https://www.hqsc.govt.nz/our-programmes/mental-health-and-addiction-quality-improvement/news-and-events/news/3162/

Where are we at now?

Thus far, DHBs have achieved substantial progress towards least restrictive practices. National data from Programme for Integrated Mental Health Data (PRIMHD) indicates the **proportion of individual people secluded in inpatient mental health services has almost halved since 2009**, amidst a growing number of people accessing services (Ministry of Health, 2016; Te Pou o te Whakaaro Nui, 2017b).

Further work is still needed as reducing the use of seclusion is a long-term and complex process for all mental health services. Recent data (shown in Figure 2 and Figure 3) indicates the **reduction in seclusion rates began to plateau in 2013** (currently around 10–11 per cent of people accessing services are being secluded), and there is **variation in the use of seclusion between DHBs** (ranging from 7 to 66 people secluded per 100,000 population) (Ministry of Health, 2017b; New Zealand Mental Health and Addictions KPI Programme, 2017; Te Pou o te Whakaaro Nui, 2017b). Therefore, identifying opportunities for improvement, and reviewing and refreshing current plans and approaches is required to achieve the goal of reducing, and eventually eliminating seclusion.

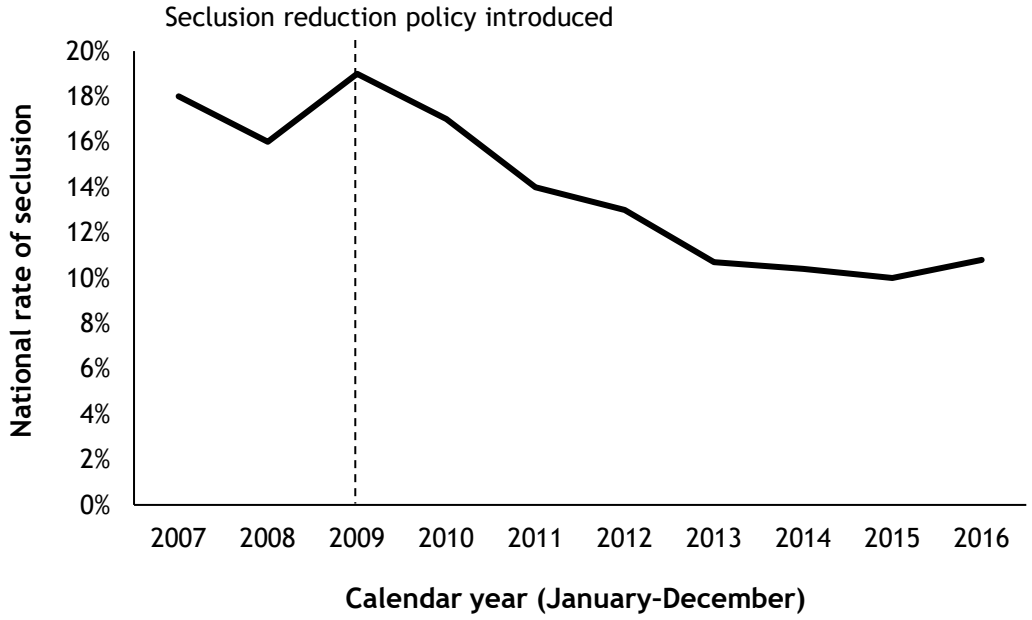

Figure 2. National rate of seclusion (the proportion of individual people secluded) in mental health services. Source: Office of the Director of Mental Health Annual Reports (Ministry of Health, 2008, 2009, 2010, 2011, 2012a, 2013, 2014, 2015, 2016, 2017b), adapted by Te Pou

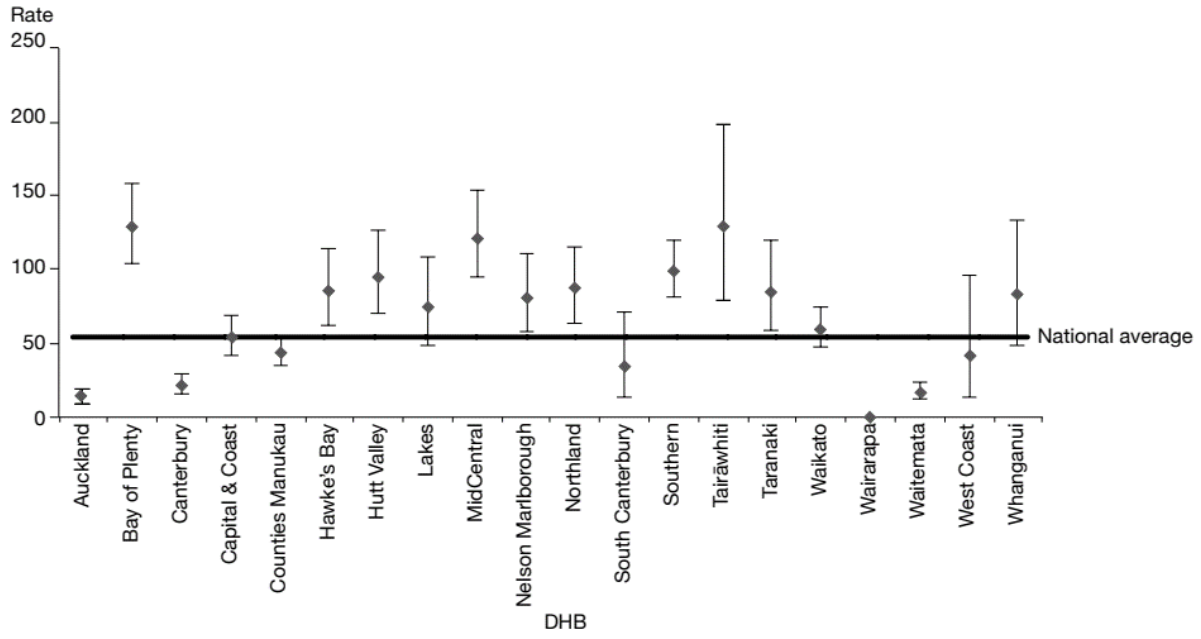

Figure 3. Number of seclusion events in adult inpatient services per 100,000 population by DHB, between January to December 2016. Source: Office of the Director of Mental Health Annual Report 2016 (Ministry of Health, 2017b) which is under the Creative Commons Attribution 4.0 International licence.

More information about using data to inform quality improvement is available on page 35 of this review.

Aims & objectives

A review was undertaken to support local quality improvement initiatives to reduce the use of seclusion and restraint in DHB mental health inpatient services. Specific objectives of this evidence review are outlined below.

1. What current **best practice models and approaches** are known to influence the reduction and eventual elimination of seclusion in New Zealand and internationally?
2. What are the **specific factors and practices** that influence the reduction of seclusion and restraint?
3. How can services incorporate best practice **cultural approaches** to reduce and eliminate the seclusion of Māori and Pasifika peoples?
4. Where can DHB staff, focused on quality improvement activity relating to eliminating seclusion, access nationally and locally relevant **data to best inform quality improvement** to reduce seclusion?
5. What are the **opportunities for improvement** identified as per the evidence in the review?

The following sections provide an overview of the evidence in relation to each objective. This was based on a review of key documents, literature searches, and clinical perspectives provided by Lois Boyd, Caro Swanson, and Professor Brian McKenna.

Current best practice models and approaches for reducing the use of seclusion and restraint

Currently, there are two main models that can assist services in reducing seclusion: ***Six Core Strategies***© and **Safewards**. These models are informed by evidence drawn mainly from case studies and qualitative data due to the complexity of the models. Moreover, as a foundational principle of the *Six Core Strategies*© framework, **Quality Improvement** approaches are commonly used to implement these evidence-based models into routine care especially in the UK.

Six Core Strategies©

The *Six Core Strategies for Reducing Seclusion and Restraint Use*© (National Association of State Mental Health Program Directors, 2008) is considered **current best practice in New Zealand**, and is also used internationally in the US, UK, and some parts of Australia. *Six Core Strategies*© was funded by Substance Abuse and Mental Health Services Administration (SAMHSA) and developed by the National Association of State Mental Health Program Directors (NASMHPD). The Director of this approach, Kevin Ann Huckshorn, regularly refers to the following **foundational principles that underpin the strategies** (Huckshorn, 2015).

1. Leadership principles for effective change.
2. Public health prevention approach.
3. Recovery and resiliency principles.
4. Value consumer and staff voices.
5. Trauma-informed care.
6. Continuous quality improvement principles.

Figure 4. Six Core Strategies for Reducing Seclusion and Restraint Use©. Adapted by Te Pou based on *National Association of State Mental Health Program Directors (2008).*

As shown in Figure 4, the *Six Core Strategies*© framework takes a **whole of system approach** which emphasises the importance of leadership, use of data, development of staff, involvement of consumer leaders and people who access services, and debriefing, and offers a range of tools to assist with reduction. These six strategies are in line with policy documents and published research (Goulet, Larue, & Dumais, 2017; Scanlan, 2010).

To assist mental health and addiction services with implementing *Six Core Strategies*©, a **checklist tool** has been adapted for use in New Zealand. The *Six Core Strategies*© *checklist: New Zealand adaptation* provides the six strategies with a local perspective and a specific focus on cultural approaches and whānau inclusion.

The online resource includes downloadable templates for the checklist that can be typed into and used for planning and quality assurance purposes. You can access a copy online or order a hard copy at https://www.tepou.co.nz/resources/six-core-strategies-for-reducing-seclusion-and-restraint-checklist/464

Local and international implementation

In New Zealand, a case study was undertaken to evaluate the implementation of *Six Core Strategies*© in a 32-bed adult inpatient mental health service (Wolfaardt, 2013). The study found the use of seclusion reduced from 40 per cent of people admitted, to 9.8 per cent in the first-year post intervention and 0.4 per cent in the second year (see Appendix A for more details). For more examples of local research and stories of implementation related to *Six Core Strategies*©, please visit https://www.tepou.co.nz/initiatives/reducing-seclusion-and-restraint/102

Several other countries have researched the effectiveness of implementing *Six Core Strategies*© on restrictive practices. The first randomised controlled trial was undertaken in 2013 (Putkonen et al., 2013). Overall, findings indicate implementation of the *Six Core Strategies*© in mental health services leads to a reduction in the use of seclusion and restraint, and other positive changes amongst staff and services. Appendix A provides an overview of evidence.

To learn more about the use of *Six Core Strategies*© in the US and UK, watch the following Restraint Reduction Network (RRN) Conference presentations by people who lead the reduction of restrictive practices.

- Kevin Ann Huckshorn (US) at https://www.youtube.com/watch?v=by4gnMmr6CA
- Janice LeBel (US) at https://www.youtube.com/watch?v=vfZIdH2iXyE
- Paul Greenwood (UK) at https://www.youtube.com/watch?v=RraNSb5pqWk

Quality improvement methodology

Continuous quality improvement is one of the foundation principles of *Six Core Strategies*©. Quality improvement approaches help services **achieve better health outcomes for people and populations, system performance, and workforce development** (Batalden & Davidoff, 2007). The model of improvement by the Institute of Healthcare Improvement outlines the following three key questions used to guide improvement in healthcare (Institute for Healthcare Improvement, n.d.). Guided by these questions, Plan-Do-Study-Act (PDSA)

cycles are developed and utilised as rapid and dynamic tests of change (Institute for Healthcare Improvement, n.d.).

- What are we trying to accomplish?
- How will we know that a change is an improvement?
- What changes can we make that will result in improvement?

To learn more about utilising quality improvement in health services, visit the following webpages:

- Health Quality & Safety Commission New Zealand's mental health and addiction quality improvement programme (NZ) at https://www.hqsc.govt.nz/our-programmes/mental-health-and-addiction-quality-improvement/projects/mental-health-and-addiction-quality-improvement-facilitator-initiative/
- Institute for Healthcare Improvement (US) at http://www.ihi.org/about/Pages/ScienceofImprovement.aspx
- Imperial College Healthcare NHS Trust's Quality Improvement programme (UK) at https://www.youtube.com/watch?v=MxTwqdXsldE

There have been several least restrictive practice programmes in the UK which have involved quality improvement methods, and some examples of these are outlined below.

- The **REsTRAIN YOURSELF** programme led by RRN and Advancing Quality Alliance (AQuA)
  - The programme achieved 42% reduction in use of restraints across all wards over six-months.
  - Utilised a wide range of tools, including the use of driver diagrams and PDSA cycles for each domain of the *Six Core Strategies*© (Greenwood, 2015).
  - For more information, visit http://restraintreductionnetwork.org/latest-news/restrain-yourself/
- The **No Force First** programme by Mersey Care NHS Trust
  - Pilot services achieved 60% reduction in the use of physical intervention over the first two years.
  - Implemented the use of PDSA cycles that focused on reducing conflict by enhancing collaboration between people accessing services and staff.
  - For more information, visit http://positivepracticemhdirectory.org/adults/no-force-first/
- The **Scottish Patient Safety Programme** (SPSP) by Healthcare Improvement Scotland
  - As of September 2016, 13 services have achieved a reduction in their rates of restraint, and 17 services reduced rates of physical violence.
  - Figure 5 shows an example of a restraint reduction run chart reported in the *SPSP Mental Health: End of Phase Report November 2016* (Scottish Patient Safety Programme, 2016).
  - For more information, visit http://ihub.scot/media/1900/end-of-phase-report.pdf and http://ihub.scot/spsp/mental-health/

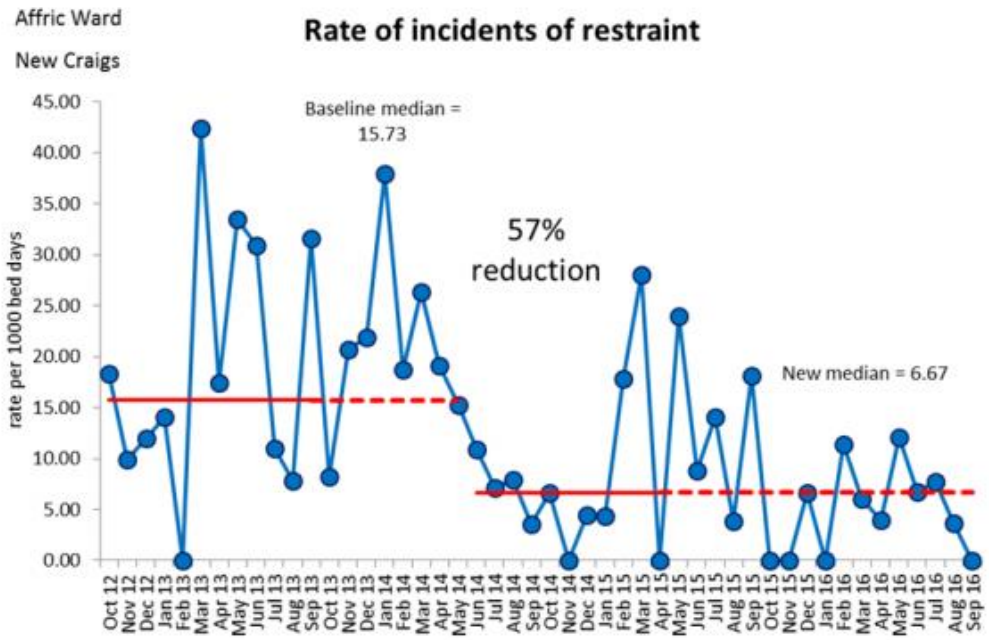

Figure 5. An example of a restraint reduction run chart reported by the Scottish Patient Safety Programme (Healthcare Improvement Scotland). Source: http://ihub.scot/media/1900/end-of-phase-report.pdf

Safewards

Safewards is another seclusion reduction model which is used in some parts of Australia and the UK. Safewards was developed and trialled in the UK by Professor Len Bowers (independent research funded by the National Institute for Health Research). The model focuses on **factors leading to seclusion or restraint episodes** (Bowers, 2014). These factors are categorised into six domains: patient community, patient characteristics, regulatory framework, staff team structure, physical environment, and stressors outside of the service. Figure 6 illustrates the Safewards pathway towards restrictive practices, and where staff and people accessing services can influence the prevention of harmful events. As part of Safewards, there are 10 interventions designed to reduce conflict.

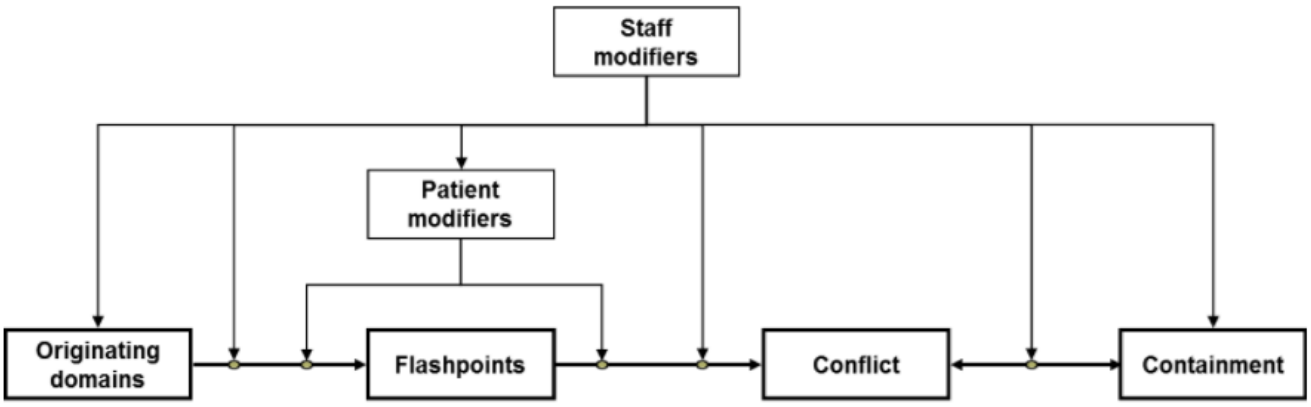

Figure 6. The Safewards model of where staff and people accessing services can reduce conflict and containment. Source: http://www.safewards.net/

Recently, Safewards was trialled in 13 wards across the Australian State of Victoria where seclusion rates were reduced by 36 per cent over one year (Fletcher et al., 2017). The authors concluded Safewards is suitable for facilitating practice change in Victorian mental health services (Fletcher et al., 2017).

In New Zealand, some of the 10 interventions proposed by Safewards to reduce conflict have recently been introduced by a small number of services as an option for operationalising Strategy 4 (Workplace Reduction Tools) of the *Six Core Strategies*©. Local use of Safewards is intended to encourage the prevention and early resolution of conflict and the promotion of therapeutic relationships and milieu. Anecdotal reports from clinical practice suggest the systems focus of the model appears to resonate with staff members.

When this model was adopted and further developed in Victoria, it was adapted to reflect local workplace culture, such as consumer participation in services and language. Should Safewards be considered further in the New Zealand context it is recommended significant adaptation be undertaken to effectively support reduction goals in a contemporary and recovery focused New Zealand best practice setting. This would involve specifying a strong focus on authentic collaborative relationships with consumers at all levels of influence, key cultural considerations and significant changes to the language used.

What differences do seclusion reduction initiatives make?

For people accessing services, lower levels of seclusion can contribute to **higher satisfaction with treatment and support** (Strauss et al., 2013; Zendjidjian et al., 2014). Reduction in restrictive practices is likely to minimise negative experiences reported by consumer perspectives, such as trauma in the inpatient environment, feelings of dehumanisation and loneliness, and negative interactions with staff (Mellow et al., 2017). In addition, the use of positive alternative approaches, such as sensory modulation, enables people to learn self-calming strategies and feel they have more control over their wellbeing (Sutton & Nicholson, 2011).

For mental health staff, the implementation of *Six Core Strategies*© can help to challenge and facilitate changes in attitudes and organisational culture. Local research (Webster, 2013) found the implementation of *Six Core Strategies*© was associated with the following changes.

1. **Rethinking power and control**: shift towards collaboration, questioning beliefs about the need for seclusion, perceived positive changes in power dynamics.
2. **Into the unknown (changes from old practice)**: introduction of new policies and training, increased responsiveness to people's needs, learning to use sensory modulation, mixed feelings about consumer roles, staff perceived negative peer pressure and a competitive environment.
3. **Getting staff on board (changes in the unit culture):** negotiating resistance from other staff, establishing champions of change, role-modelling new ways of working, change in staff attitudes and understanding of current best practice.

The full report is available on the Te Pou website, and a related video resource is available at https://www.youtube.com/watch?v=1a7Txv0QtGM

Specific strategies and factors that influence the reduction of seclusion and restraint

The reduction of seclusion is a complex, long-term process requiring changes to policies, systems, and service delivery. At the service delivery level, there has been a strong emphasis on specific strategies and factors that support the reduction of seclusion. Current strategies in New Zealand include strengthening consumer leadership and involvement, implementing sensory modulation, trauma-informed care and cultural approaches. In addition, the wider literature has identified a range of factors related to leadership, culture, and workforce development that influence the reduction of restrictive practices. All of these strategies and factors concur with the best practice models described above, and can be considered as potential areas for future quality improvement activity.

Specific strategies that support reduction

Consumer leadership and involvement, sensory modulation, trauma-informed care, post-seclusion debriefing and cultural approaches are specific strategies aimed at strengthening people-centred and recovery orientated service delivery for better outcomes. However, these are emerging areas of practice that require more evidence and further development. Cultural approaches for working with Māori and Pasifika peoples are discussed in the following section of this review (page 32).

Consumer leadership and involvement in seclusion reduction

As part of the *Six Core Strategies*© (Strategy 5: Full inclusion of consumers, their families and whānau in all activities), **services should demonstrate authentic co-production and co-leadership with consumer leaders across every aspect of seclusion reduction initiatives.** Co-production was first developed as an economic strategy for improving services which involve "delivering public services in an equal and reciprocal relationship between professionals, people using services, their families and neighbours. Where activities are co-produced in this way, both services and neighbourhoods become far more effective agents of change" (Boyle & Harris, 2009, p. 11). By acknowledging people who access services as a valuable resource, there is potential for better innovation around the transformation of service delivery, more responsiveness to community needs, and wider development of social networks to support recovery and wellbeing (Boyle & Harris, 2009).

Co-production involves the following four phases: co-planning, co-design, co-delivery, and co-evaluation (Roper, Grey, & Cadogan, 2018). Similar to the four stages of PDSA cycles, these phases of co-production represent involvement in all stages of service development and delivery. In the context of mental health services and the implementation of least restrictive initiatives, co-production approaches can be applied to the development of policies, services, projects, research and training (Roper et al., 2018).

Co-production: Putting principles into practice in mental health contexts (Roper et al., 2018) outlines the following three core principles of co-production in mental health services.

1. Consumers are partners from the outset.

2. Power differentials are acknowledged, explored, and addressed.
3. Consumer leadership and capacity is developed.

Strengthening consumer leadership is a priority area for workforce development, as described in the *Mental Health and Addiction Workforce Action Plan 2017–2021* (Ministry of Health, 2017a). Under this action plan, workforce development initiatives that support the implementation of national frameworks and *Rising to the Challenge* (Ministry of Health, 2012b) should be co-produced. This action is beneficial for the sector because strong consumer leadership increases social inclusion of people with lived experiences, enhances opportunities to build capacity across the entire workforce, and ensures services are fit for purpose through understanding what the 'customer' needs are direct from the lived experience of people accessing services (Ministry of Health, 2017a). To facilitate the development of the consumer leadership workforce, research has emphasised the importance of ensuring buy-in from other staff through education and better articulation of the value of co-leadership (Gordon, 2005; Scholz et al., 2017).

For more information about consumer leadership and involvement, visit the following websites.

- Balance Aotearoa http://www.balance.org.nz/
- PeerZone http://www.peerzone.info/
- Intentional Peer Support http://www.intentionalpeersupport.org/
- Service user, consumer and peer workforce initiative page on the Te Pou website https://www.tepou.co.nz/initiatives/service-user-consumer-and-peer-workforce/22

Sensory modulation

The *Six Core Strategies*© involves a focus on reduction tools (Strategy 4). **Sensory modulation is an approach that supports people to reduce their levels of distress and overwhelm** (Lloyd et al., 2014) and has been a major focus in the seclusion reduction initiatives in New Zealand. Sensory modulation involves learning to use your senses (sight, sound, smell, touch, and taste) mindfully to promote the self-management of arousal states (Champagne, 2003; Lee, Cox, Whitecross, Williams, & Hollander, 2010; Sutton & Nicholson, 2011). As part of this approach, sensorimotor activities are utilised to explore and develop people's 'sensory diet', for example, some activities help facilitate calmness (e.g., rocking chairs, weighted blankets) while others can assist in raising alertness (e.g., sour candies, cold showers) (Champagne & Stromberg, 2004).

In New Zealand, the *Six Core Strategies*© case study showed **sensory modulation resulted in a significant reduction in distress levels for people**, and the optimal duration of sensory room use was approximately 28 minutes (Sutton & Nicholson, 2011; Te Pou o te Whakaaro Nui, 2017a; Webster, 2013; Wolfaardt, 2013). Findings indicate sensory modulation is a practical approach that facilitates self-care, interpersonal connection, and a sense of safety, control, and empowerment (Sutton & Nicholson, 2011; Te Pou o te Whakaaro Nui, 2017a; Webster, 2013; Wolfaardt, 2013).

> It's totally changed my experience of being on the ward. Previously, the ward has been like a holding pen for me…it's sort of like a waiting, waiting, waiting until something happens. This last admission…I did use the room quite a bit, I did find myself a lot more aware and a lot more, engaging with staff, engaging with other clients, having a bit of a plan for my day. – consumer perspective from Sutton and Nicholson (2011).
>
> If it's someone you're just starting to get rapport with, it's really good for cementing it. Because it's one of those, you're in the room with the person on their own for an hour. Which, in an acute ward is golden, it's really hard to get serious one on one time...If you're in a sensory room you're sitting and talking to someone but you're doing something else at the same time. Which is a more relaxed atmosphere. – staff perspective from Sutton and Nicholson (2011).

Sensory modulation has also been shown to be effective in reducing distress in adolescent and forensic services (West, Melvin, McNamara, & Gordon, 2017; Wiglesworth & Farnworth, 2016). However, some nurses have expressed concerns about the suitability of sensory modulation for people in mental health intensive care (Webster, 2013), indicating more research and training is needed to better understand its utilisation.

Recently, a stocktake of DHB mental health services indicated sensory modulation initiatives and training are frequently led by occupational therapists (Te Pou o te Whakaaro Nui, 2017a). Overall, people who facilitate the implementation of sensory modulation indicated leadership from senior management and staff buy-in are key supporting factors (Te Pou o te Whakaaro Nui, 2017a). Some services provided good examples of customising sensory modulation to meet the needs of Māori people, such as offering kapa haka and waiata.

The stocktake also identified the following opportunities for improvement:

- ensuring sensory modulation is included in all standard assessment processes during admission, and subsequent treatment, care or recovery plans
- ensuring staff are motivated or confident in using sensory modulation through sufficient staff training as well as resources, dedicated time, and designated trainers
- incorporating cultural approaches to match the needs of people accessing services
- implementing monitoring processes for the use of sensory modulation.

For more information about sensory modulation, please visit https://www.tepou.co.nz/initiatives/sensory-modulation/103

Trauma-informed care

Trauma-informed care is one of the foundation principles of *Six Core Strategies*©. From this SAMHSA has developed and is now leading the movement towards trauma-informed practice. Trauma-informed care is **a strengths-based approach to service delivery which recognises the widespread impact of traumatic experiences and need for responses to trauma to support recovery and avoid re-traumatisation** (SAMHSA, 2014, p. 9). SAMHSA provides services with trauma-informed care training and resources.

Local research has examined the implementation of a trauma-informed care approach in an acute inpatient mental health unit in New Zealand (Ashmore, 2013). There were fewer trauma-informed care resources available in New Zealand compared to a similar unit in New South Wales (NSW), Australia. Moreover, support from management and the need for champions were identified as opportunities for improvement (Ashmore, 2013). Currently, work is underway in New Zealand to review and progress the implementation of trauma-informed care approaches in mental health settings.

For more information about trauma-informed care, please visit https://www.tepou.co.nz/initiatives/trauma-informed-care/181 and https://www.samhsa.gov/nctic/about

Post-seclusion debriefing and reflective practice

As part of the *Six Core Strategies*© (Strategy 6), post-seclusion debriefing and review processes after every seclusion episode supports the reduction of seclusion (Goulet, Larue, & Lemieux, 2017). **Debriefing processes improve future outcomes through reflecting on clinical practice, and focusing on safety and quality improvement**, as shown in Figure 7 (Sutton et al., 2014).

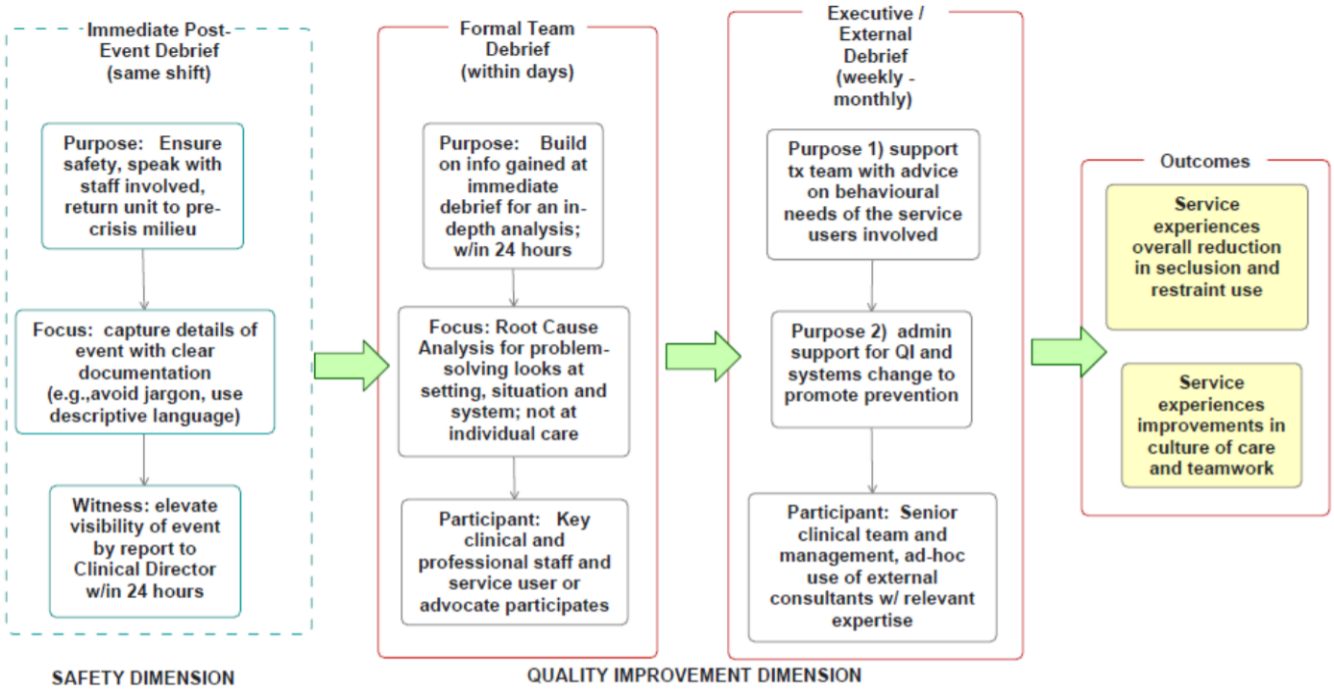

Figure 7. Post-seclusion debriefing process for staff members. Source: Sutton et al. (2014, p. 15)

Post-seclusion debriefing involves discussions between staff and consumers who were present to review the situational factors that caused distress and develop strategies to prevent reoccurrences (Sutton et al., 2014). For people who experienced seclusion, debriefing processes help to prioritise their wellbeing, mitigate the traumatic effects of seclusion, rebuild rapport, discuss the details of what happened, and ensure advocacy (Sutton et al., 2014). As part of this process, reflexive thinking amongst the team and organisation can contribute to changes in workplace culture (Goulet & Larue, 2016). Formal team debriefs provide opportunities for staff members to seek support to overcome distress and rebuild confidence, as well as participate in shared responsibility and problem-

solving (Sutton et al., 2014). Implementing regular check-ins or team huddles further supports information sharing, accountability, collective awareness, empowerment and a sense of community amongst managers and staff (Goldenhar, Brady, Sutcliffe, & Muething, 2013).

However, while debriefing after every episode of seclusion is important, it does not always occur in practice and challenges include use of inconsistent approaches and not being able to schedule dedicated time (Sutton et al., 2014). It is important to note some people may feel too uncomfortable to communicate with staff who were involved in the seclusion episode or discuss what happened (Goulet, Larue, & Lemieux, 2017; Meehan, Vermeer, & Windsor, 2000). Thus, ensuring debriefing processes are rigorous and effective will involve staff training in consistent debriefing techniques, regular team huddles or meetings to discuss recent episodes of seclusion, and personalisation to meet individual needs.

Specific factors related to staff and services

Implementation research indicates **leadership, culture, and workforce development are key factors** that influence the effectiveness of least restrictive initiatives (Bryson et al., 2017; Goulet, Larue, & Dumais, 2017; Scanlan, 2010). In addition to implementation research, findings from qualitative research involving consumer perspectives also provide valuable information about factors that contribute to seclusion reduction. People accessing services tend to attribute the cause of distress to mental health problems as well as **interpersonal communication** and **environmental factors** (Duxbury & Whittington, 2005; Ilkiw-Lavalle & Grenyer, 2003). Aspects related to these key factors are outlined below.

Leadership and organisational culture

The following factors relating to leadership and culture can influence the use of restrictive practices.

- **Demonstrating strong leadership**, especially top-down leadership from senior management, is a key factor influencing the implementation of new initiatives (Bryson et al., 2017; Goulet, Larue, & Dumais, 2017; Scanlan, 2010).
    - Consumer leadership can provide an innovative perspective that understands, advocates, and reflects the needs of people accessing services (Kites Trust, n.d.; Ministry of Health, 2017a).
    - Strong leadership commitment in implementing new policies and practices in the unit can effectively reduce the use of restraint and seclusion (Pollard et al., 2007).

- **Developing a people-centred, recovery orientated workplace culture** that is accepting of change.
    - Positive attitudes towards people accessing services and their complexities is associated with lower use of seclusion (Bowers et al., 2010; van Boekel et al., 2013).
    - A strong quality improvement culture in the service helps to engage staff and facilitates change. For example, see:
        - Mersey Care NHS Trust at http://www.merseycare.nhs.uk/about-us/striving-for-perfect-care/

        - East London NHS Foundation Trust at http://www.ihi.org/communities/blogs/lessons-for-building-a-strong-quality-improvement-culture?utm_campaign=tw&utm_source=hs_email&utm_medium=email&utm_content=60008500&_hsenc=p2ANqtz-8vj6Y-aZIVAmJf_wd37hWluq9xsQfiGrZh_WZW4-LkwGDGPLvBltP4cOD26cmkIHKr6OgqVSXfEgkB8NFCTqg6zPi9Nw&_hsmi=60008500
    - The establishment of 'change champions' helps to widen the sense of responsibility, role model the desired change to others, and enables staff to challenge the established norms (Webster, 2013).
    - Use of people-centred language across the unit reduces stigma towards people in services and influences decision-making amongst mental health nurses (Riahi, Thomson, et al., 2016).
    - *Real language, real hope* is a resource that provides examples of people-centred recovery orientated language to guide the way we speak to and about people who experience mental health and/or addiction problems. This is available at https://www.tepou.co.nz/uploads/files/resource-assets/Handover-March%202017-insert-WEB-%C6%92.pdf

- **Using data to inform practice and challenge beliefs about seclusion**, for example:
    - user-friendly graphs were important for communicating data to staff and contributed to the success at Waiatarau Mental Health Unit (Waitemata District Health Board, 2011)
    - research indicates interventions to reduce seclusion pose no additional risk to staff safety (Te Pou o te Whakaaro Nui, 2014a)
    - there is a need to understand the impact of reducing the use of restrictive practice on pharmacologic interventions (Wolfaardt, 2013).

Workforce composition and development

The following factors relating to workforce composition and development can positively influence the use of restrictive practices.

- **Reviewing staff mix** to provide teams with a variety of experiences, abilities and perspectives needed to effectively work with people from different backgrounds.
    - Peer support roles assist the development of a workforce that reflects the diversity and experiences of people accessing services (Ministry of Health, 2017a). Through reciprocity and sharing experiences, peer support promotes hope, empowerment, engagement, self-efficacy and social networks amongst people with mental health and addiction problems (Repper & Carter, 2011).
    - Although findings are mixed, some studies indicate staff with more years of work experience are less likely to use restrictive practices (Janssen et al., 2007; Lindsey, 2009; Williams & Rachel, 2001).
    - There is some evidence which suggests there may be an association between staff gender ratio and the use of restrictive practices (Daffern et al., 2006).

- The physical stature of nurses may influence the use of seclusion (Doedens et al., 2017), where nurses with a large physical stature are less likely to use seclusion.

- **Examining staffing levels and consumer-to-staff ratios** which can influence the use of seclusion, even across different shifts in the same unit (Morrison & Lehane, 1995).
  - Overcrowding and lower levels of staffing may be associated with higher use of seclusion (Brooks et al., 1994; Janssen et al., 2007).

- **Developing verbal de-escalation and crisis management skills** which are therapeutic and help to prevent the use of restrictive practices are strongly valued by consumer perspectives (Kontio et al., 2012).
  - Standards New Zealand (2008a) defined de-escalation as "a complex interactive process in which the highly aroused consumer is re-directed from an unsafe course of action towards a supported and calmer emotional state".
  - The updated SPEC training programme has a strong emphasis on prevention and therapeutic communication skills and strategies.
  - LeBel, Huckshorn, and Caldwell (2014) suggested a need to separate the bridge between de-escalation techniques and hands-on restraint training so that restrictive practices are not perceived as the expected follow-up to de-escalation attempts.

- **Including cultural competency and cultural support roles** to help services to improve their responsiveness to and outcomes for vulnerable populations.
  - Examples include enhancing Māori leadership, increasing tāngata whai ora and whānau participation, increasing Māori peer support staff, as well as cultural competency training for the workforce (McLeod, King, Stanley, Lacey, & Cunningham, 2017; Te Pou o te Whakaaro Nui, 2013a, 2014b; Wharewera-Mika et al., 2013).
  - It is important to address the higher rates of seclusion for Māori and Pasifika peoples compared to other ethnic groups (see page 32: *Reducing and eliminating seclusion among Māori and Pasifika peoples*).
  - New Zealand's mental health services have a strong emphasis on working effectively with Māori people (Nursing Council of New Zealand, 2011).

Therapeutic communication and relationships

Evidence suggests the following communication and relationship factors influence people's rapport with staff and the use of restrictive practices.

- **Ensuring communication is genuinely caring and meaningful** between staff and people accessing services (Gudde et al., 2015).
  - Distress often occurs when consumer-staff relationships are perceived as custodial rather than caring. Moreover, poor communication between people accessing services and staff often leads to feelings of powerlessness and being ignored (Gudde et al., 2015).

- **Showing empathy** influences experiences of care and conflict resolution for both staff and people accessing services (Gerace et al., 2018).
    - The presence of nurses with higher levels of empathy is associated with reduced use of restrictive practices (Yang et al., 2014).

- **Involving consumers** to provide knowledge of lived experiences and advocacy, which can help facilitate understanding and empowerment amongst people accessing services (Scholz et al., 2017).

- **Involving whānau** to provide knowledge about people's personal histories, effective strategies to reduce distress, and advocacy (Kontio et al., 2017).

In the New Zealand context, *Let's get real: Real Skills for people working in mental health and addiction* is a framework that describes the skills, values and attitudes required to deliver effective mental health and addiction services. Essential attitudes such as being compassionate and caring, genuine, supportive, and non-judgemental can facilitate therapeutic interactions between people accessing services, families and whānau, and staff. The *Let's get real* framework aligns with *Six Core Strategies*© and Safewards. For more information about *Let's get real*, visit https://www.tepou.co.nz/initiatives/lets-get-real/107

Therapeutic environments

The physical environment of mental health services has been shown to impact on levels of distress and use of restrictive practices (Nakarada-Kordic & McKenna, 2011). Evidence suggests the following environmental factors can help create a calming and therapeutic atmosphere for both staff and people accessing services.

- **Providing open ward environments** without locked doors to help make the inpatient unit feel less restricting and reduce seclusion hours even after an initial rise in absconding (Beaglehole et al., 2017).

- **Providing private, spacious and quiet areas** that are attractive and flexible to enhance privacy and autonomy.
    - Sensory or comfort rooms can be specifically designed to help promote wellbeing and facilitate the reduction of seclusion (Cummings et al., 2010).

- **Ensuring communal staff spaces** are attractive, functional and private to help enhance job satisfaction and professional communication (Gum et al., 2012).

- **Minimising admission shock** by identifying opportunities to make inpatient units feel more welcoming to people.
    - The 15 Steps Challenge is a tool used to identify how people experience the ward environment across four environmental aspects: welcoming; safe; well-organised and calm; and caring and involving (Greenwood, 2015), and is available at https://www.aquanw.nhs.uk/resources/mental-health/restrain-yourself/presentation/REsTRAIN%20YOURSELF%20Toolkit.pdf

- **Providing opportunities for meaningful activities** in the unit which can positively engage people, support recovery, and minimise distress arising from boredom (Muir-Cochrane et al., 2015).

- Cultural activities and sensory modulation provide meaningful activities and help to develop rapport between staff and people accessing services (Sutton & Nicholson, 2011).

- **Identifying routines, ward rules and time-of-day** associated with the use of seclusion and restraints.
  - Research indicates restrictive practices may be more common during day-shifts on weekdays, and less common during shifts in the evenings, nights and weekends (Leerbeck et al., 2017). However, findings may differ from service to service.
  - Re-thinking and being flexible with ward rules helps the inpatient unit feel less restricting and has an influence on distress as well as use of restrictive practices (Alexander & Bowers, 2004).

For services, the reduction of seclusion means resources can be re-allocated to support the growth of alternative practices. For example, the substantial reduction in seclusion episodes achieved by the Waiatarau Mental Health Unit at Waitakere Hospital enabled the unit to re-purpose one of their two seclusion rooms into a sensory modulation room (Waitemata District Health Board, 2011). Read this local story at https://www.tepou.co.nz/news/implementing-and-tracking-progress-of-a-seclusion-reduction-strategy-in-an-adult-in-patient-mental-health-service/121

Reducing and eliminating seclusion among Māori and Pasifika peoples

In New Zealand **reducing and eliminating the seclusion of Māori and Pasifika peoples is a priority** for mental health inpatient services (Ministry of Health, 2017b). Figure 8 shows the seclusion rates for Māori and Pasifika people have changed over time and are consistently higher than other ethnic groups. Therefore, strengthening cultural approaches and minimising the seclusion of vulnerable populations are priority areas that need quality improvement activity and regular monitoring.

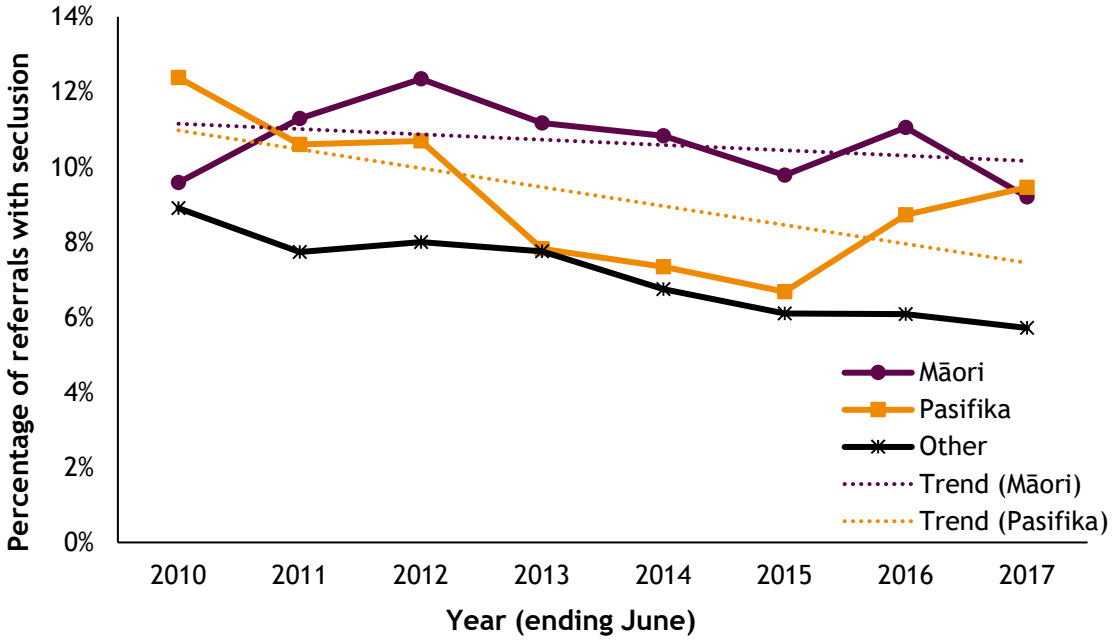

Figure 8. Percentage of referrals with seclusion in adult inpatient mental health services. Source: Ministry of Health, PRIMHD, extracted October 2017, analysed and formatted by Te Pou. *Note.* The data may not represent full seclusion data for some DHBs. Only data that is captured electronically in PRIMHD is included.

Improving mental health outcomes for tāngata whai ora requires culturally competent staff to deliver culturally effective care. The Nursing Council (2011, p.7) has defined culturally effective practice as:

> The effective nursing practice of a person or family from another culture, and is determined by that person or family. Culture includes, but is not restricted to, age or generation; gender; sexual orientation; occupation and socioeconomic status; ethnic origin or migrant experience; religious or spiritual belief; and disability. Unsafe cultural practice comprises any action which diminishes, demeans or disempowers the cultural identity and wellbeing of an individual. (Nursing Council of New Zealand, 2011, p. 7)

Reducing seclusion of Māori people

Rising to the Challenge outlined reducing the seclusion of Māori people as a key priority area (Ministry of Health, 2012b). Within the adapted *Six Core Strategies*© checklist tool, cultural aspects are incorporated to promote change towards culturally effective service delivery. To our knowledge, New Zealand is the only country to date that has customised *Six Core Strategies*© to address the specific needs of indigenous peoples (Te Pou o te Whakaaro Nui, 2013b).

Cultural approaches led by Māori perspectives

Several reports **undertaken primarily by Māori clinicians** have been published for the purpose of reducing seclusion and restraint, and improving health service delivery for Māori people.

- *Strategies to Reduce the Use of Seclusion and Restraint with Tāngata Whai i te Ora* (Wharewera-Mika et al., 2013; Wharewera-Mika et al., 2016).
- *Reducing Māori Seclusion: A Summary Report with Recommendations for Managers and Leaders of Mental Health Services* (Te Pou o te Whakaaro Nui, 2013a).
- *Supporting Seclusion Reduction for Māori: "Taiheretia tātou kia puta te hua"* (Te Pou o te Whakaaro Nui, 2014b).

These reports are available at https://www.tepou.co.nz/initiatives/working-with-maori/178

The use of language is important to effectively work with Māori people. *Te Reo Hāpai – The Language of Enrichment* is a Māori glossary for use in the mental health, addiction and disability sectors. You can access a copy online or order a hard copy at https://www.tepou.co.nz/resources/te-reo-hapai---the-language-of-enrichment/843

Key cultural approaches

Local literature indicates the following factors are important for reducing seclusion amongst Māori people (McLeod, King, Stanley, Lacey, & Cunningham, 2017; Te Pou o te Whakaaro Nui, 2013a, 2014b; Wharewera-Mika et al., 2013):

- recognising and understanding the importance of the **Treaty of Waitangi**, Māori identity, Māori health beliefs and models of health
- enhancing **Māori leadership** through genuine commitment to partnership
- increasing **tāngata whai ora** and **whānau participation**, and Māori peer support staff
- **upskilling the workforce** to reduce the use of seclusion and restraint with Māori people, training and assessment of **dual competency**, supervision and support for both Māori and non-Māori staff
- **using data** to inform seclusion and restraint reduction initiatives for Māori people
- **using processes, tools, and tikanga Māori** to reduce seclusion and restraint for Māori people, such as manaakitanga (hospitality), kanohi ki te kanohi (face-to-face interactions), cultural healing practices (kapa haka, mirimiri, karakia), holistic wellbeing and wairuatanga (spirituality)

- **debriefing processes** that include whānau perceptions, enabling staff to develop dual competency and to reflect on their personal responses to challenging situations with Māori people
- increasing the responsiveness of **early intervention and community mental health services** to reduce the over-representation of Māori people in acute inpatient units.

Cultural approach to sensory modulation

Recent research has shown participation in kapa haka groups is beneficial for the mental health of Māori people by helping people to feel grounded in their bodies and the surrounding environment (Hollands, Sutton, Wright-St. Clair, & Hall, 2015). Other local examples of incorporating cultural elements into sensory modulation include: pictures and sounds of local landscapes, flora and fauna; kapa haka; weaving; waiata; karakia; mirimiri; and the involvement of whānau and kaumātua (Te Pou o te Whakaaro Nui, 2017a).

Reducing seclusion of Pasifika peoples

Similar to Māori, the seclusion rate of Pasifika peoples is greater than people from other ethnic groups, which indicates this as an area in need of quality improvement activity. To our knowledge, cultural competency frameworks for working with Pasifika peoples are available, but there are little or no resources that specifically focus on reducing Pasifika seclusion. Overall, improving outcomes for Pasifika peoples accessing services will require an understanding of the following core competencies from the Seitapu framework (Te Pou o te Whakaaro Nui, 2007).

- **Families:** working with the families of Pasifika peoples accessing services is key to their recovery.
- **Language**: access to staff with language competency can help facilitate effective communication with Pasifika peoples and their families.
- **Tapu**: knowledge of the cultural, spiritual, and relational markers and boundaries is critical for working with Pasifika peoples.
- **Organisation**: knowledge of the organisation's responsibilities to Pasifika peoples is critical for working effectively with Pasifika peoples and the wider community.

The following resources can help support the development of Pasifika cultural competency in mental health services.

- **Engaging Pasifika cultural competency training programme by Le Va**
  https://www.leva.co.nz/training-education/engaging-pasifika
- ***Seitapu framework of Pacific cultural and clinical competencies***
  https://www.tepou.co.nz/uploads/files/resource-assets/seitapu-pacific-mental-health-and-addiction-cultural-and-clinical-competencies-framework.pdf
- ***Let's get real: Real Skills plus Seitapu: Working with Pacific Peoples***
  https://www.tepou.co.nz/resources/lets-get-real-real-skills-plus-seitapu-working-with-pacific-peoples/113

Using data to inform quality improvement

Seclusion data

New Zealand's DHB mental health services are mandated to routinely collect seclusion data which is sent to the Ministry of Health to become part of the **Programme for Integrated Mental Health Data** (PRIMHD). National and local information about the use of seclusion is reported on a regular basis by the Director of Mental Health, Key Performance Indicator (KPI) Programme, and Te Pou. However, the most up-to-date data is often available through individual DHBs.

Based on 2016 data, the **Office of the Director of Mental Health** (Ministry of Health, 2017b) reported 10.8 per cent of people admitted into adult mental health services were secluded (802 out of 7,411 individual people admitted) (Ministry of Health, 2017b).[2] Seclusion data from the Office of the Director of Mental Health reports are presented in graphs on pages 16 and 17 of this review.

The *Office of the Director of Mental Health Annual Report 2016* is available at https://www.health.govt.nz/publication/office-director-mental-health-annual-report-2016

Based on 2016/17 data (accessed on 26/03/2018), the **KPI Programme** reported the following:

- 46.8 seclusion hours per person secluded (average)
- 2.1 seclusion events per person secluded (average)
- 22.2 hours was the average duration of a seclusion event
- 1,286.9 seclusion hours per 100,000 population
- 58.4 seclusion events per 100,000 population
- 27.5 unique people secluded per 100,000 population.[3]

For KPI data specific to your DHB, see Table 1, which shows the number of seclusion events per 100,000 population over the past four years.

To view the latest KPI Programme benchmarking data, see https://www.mhakpi.health.nz/

Every six-months, **Te Pou produces data reports for each DHB** containing information about their use of seclusion compared with the national average. These can be obtained by contacting the Director of Mental Health Nursing, clinical lead or general manager in your DHB.

[2] Excludes forensic and other regional rehabilitation services.

[3] As advised by Ministry of Health on 5 December 2017, various data quality issues were identified with PRIMHD data submitted by a number of DHBs, such as retrospective correction for prior periods, missing/low volume for recent months. Please exercise discretion when interpreting and comparing the KPI results between DHBs.

Table 1. *Seclusion Events per 100,000 Population Across DHBs Between 2013 and 2017*

DHB	Number of Seclusion Events per 100,000 Population			
	2013/14	2014/15	2015/16	2016/17
Northland	134.3	93.9	150.9	70.6
Waitematā	26.7	18.8	18.8	12.2
Auckland	3.3	5.4	10.9	10.8
Counties Manukau	37.9	54.1	60.2	41.3
Waikato	82.2	49.3	55.4	71.3
Lakes	46.7	58.5	110.4	62.0
Bay of Plenty	121.3	157.1	158.6	123.7
Tairāwhiti	121.6	243.0	171.5	112.6
Taranaki	161.5	132.7	73.7	99.0
Hawkes Bay	45.2	43.9	69.1	110.0
MidCentral	99.0	52.2	96.1	128.1
Whanganui	79.8	50.2	44.2	91.1
Capital & Coast	85.5	53.7	47.5	163.3
Hutt Valley	183.1	164.3	123.2	91.7
Nelson Marlborough	218.9	202.3	163.0	56.7
West Coast	46.6	46.8	42.0	53.0
Canterbury	74.3	45.0	18.8	24.2
South Canterbury	50.3	56.2	46.5	61.5
Southern	195.6	178.7	68.7	51.9
National	**78.7**	**67.6**	**58.8**	**58.2**

Source: https://www.mhakpi.health.nz/Data/Data/Adult-FY-2013-14-to-2016-17 (accessed on 20/12/2017). *Note.* As advised by Ministry of Health on 5 December 2017, various data quality issues were identified with PRIMHD data submitted by a number of DHBs, such as retrospective correction for prior periods, missing/low volume for recent months. Please exercise discretion when interpreting and comparing the KPI results between DHBs.

What types of analyses can help to inform quality improvement?

For DHB staff who are interested in quality improvement activity, useful analyses for exploring seclusion data are listed below.

- **Frequency and duration of seclusion use per inpatient unit**
  - identify and monitor multiple use on an individual.
- **Ethnic group comparisons**
  - Māori and Pasifika peoples compared to other ethnic groups.
- **Comparisons between inpatient units and DHBs**
  - variation between DHBs, and within DHBs over time
  - differences in clinical practice and organisational culture

    - differences in staff skills-mix
    - differences in culturally-effective approaches.

- **Differences between specialty services**
    - such as adults, adolescents or older persons services, and forensic mental health.

- **Comparisons across shifts and time-of-day**
    - identify daily routines and staff associated with the use of seclusion.

- **Associations between seclusion and factors related to behavioural disturbances**
    - such as substance use or psychosis
    - differences in how services respond to these factors.

- **Associations between seclusion reduction and use of PRN medication.**[4]

Personal restraint data

There are four types of restraints used within mental health services: personal restraint, physical restraint, environmental restraint, and seclusion. Personal restraints are defined as "where a service provider uses their own body to intentionally limit the movement of a consumer" (Standards New Zealand, 2008a, p. 30). Data on the use personal restraints is collected by DHB mental health services for review and internal reporting purposes. Currently, however, there is no mandate for this data to be reported nationally to the Ministry of Health. Thus, **the current national rates regarding the use of personal restraints are unknown.**

Under the Health and Disability Services (Restraint Minimisation and Safe Practice) Standards (Standards New Zealand, 2008b), DHBs are required to collect the following data about the use of restraints:

- reasons for initiating the restraint
- alternative interventions prior to restraint
- any advocacy or support offered prior to restraint
- outcome of the restraint
- injury to any person as a result of restraint
- observations of the person during the restraint
- comments from reviews and evaluations of the restraint.

Please contact the Director of Mental Health Nursing, clinical lead or general manager at your DHB for more information about access to restraint data.

[4] PRN medication: stands for 'pro re nata', which means medicines that are taken 'as needed/when necessary'.

Opportunities for improvement

Mental health services in New Zealand have achieved substantial progress towards reducing the use of seclusion over the past decade. Advancing this progress to achieve the goal of eliminating seclusion by 2020 will involve identifying opportunities for improvement, and reviewing and refreshing current plans and approaches. Based on the evidence summarised in this review, some key opportunities for improvement are outlined below.

- Reviewing and refreshing the implementation of initiatives that support seclusion reduction including:
    - **evidence-based approaches or service delivery frameworks** that can positively influence authentic collaborative approaches between staff and people accessing services, such as: *Six Core Strategies*©, trauma-informed care, post-seclusion debriefing, and the *Let's get real* framework
    - **co-production and co-leadership** with consumer leaders and people who access services through authentic partnership and commitment
    - **reduction tools** that can reduce people's distress and improve wellbeing, such as sensory modulation and comfort rooms
    - **multiple-level, systemic strategies** that support staff and organisational buy-in of seclusion reduction initiatives, such as changes to workplace culture and the active use of data.

- Improving responsiveness to Māori and Pasifika peoples:
    - improving the implementation of **Māori and Pasifika cultural approaches:** both population groups are priority areas for reducing seclusion.

- Using data for continuous quality improvement:
    - **identifying and understanding factors related to seclusion rates,** such as: factors that influence variation between and within DHBs over time, changes in Māori and Pasifika seclusion over time, and the influence of substance use or psychosis on seclusion.

Conclusion

This evidence review shows reducing the use of seclusion requires a long-term investment over time. Thus far, New Zealand has achieved substantial progress towards the goal of seclusion reduction; where the proportion of people secluded has almost halved since 2009 amidst growing demand for mental health services. Much of this progress is attributable to the local implementation of *Six Core Strategies*© including proactive leadership and management, authentic consumer involvement in leading and influencing change, culturally effective approaches, sensory modulation, and trauma-informed services.

Research has identified a range of factors that influence the use of restrictive practices, such as those relating to communication and relationships, service environment, and staff characteristics and attitudes. However, most of this research has been done in other countries, and so there is a need to examine whether these findings apply to the New Zealand context.

Through PRIMHD, seclusion data is available to inform the future development of practice. Opportunities for improvement include the incorporation of culturally effective approaches, addressing the variation between DHBs, continuing implementation of evidence-based approaches, identifying factors that influence the use of restrictive practices, and assessing current progress and needs. Quality improvement initiatives at a local level should be based on an assessment of current needs and rates of seclusion to identify priority areas and develop local plans.

Mental health inpatient services continue to work collaboratively towards eliminating the use of seclusion and improving outcomes for people accessing services. If you are interested in quality improvement activity relating to seclusion reduction, visit the following websites.

- Te Pou website or contact the co-leads for this work at https://www.tepou.co.nz/initiatives/reducing-seclusion-and-restraint/102

- Health Quality & Safety Commission New Zealand website at https://www.hqsc.govt.nz/our-programmes/mental-health-and-addiction-quality-improvement/

Appendix A: Overview of evidence supporting the implementation of *Six Core Strategies©*

Table 2 presents evidence about the effectiveness of implementing *Six Core Strategies©* on reducing the use of seclusion and restraint. The studies were undertaken in New Zealand, Australia, the UK, US, and Finland.

Overall, findings indicate implementation of the *Six Core Strategies©* in mental health services leads to a reduction in the use of seclusion and restraint, and other positive changes amongst staff and services.

Table 2. *Effectiveness of Six Core Strategies© on Reducing Seclusion and Restraint*

Country	Key references/sources of information	Findings
New Zealand case study	An evaluation of the efficacy of the *Six Core Strategies©* intervention to reduce seclusion and restraint episodes in an acute mental health unit (Wolfaardt, 2013) https://www.tepou.co.nz/resources/an-evaluation-of-seclusion-and-restraint-reduction-strategies-within-an-acute-mental-health-unit/532	Results indicated the use of seclusion reduced from 40 per cent of people admitted to 9.8 per cent after one-year post-intervention, and 0.4 per cent in the second year. The use of restraint had also reduced in the first-year post-intervention, resulting in an average of 1.52 episodes per person. However, in the second year, the number of restraints increased to an average of 2.31 episodes per person (pre-intervention average was 2.59). The study raised concerns about the need to monitor the use of PRN medication as an alternative restraint method. Results indicated the amount of PRN medication had nearly doubled in the years following the implementation of *Six Core Strategies©* (Wolfaardt, 2013).
Australia's Beacon Project	*A Case for Change: Position Paper on Seclusion, Restraint and Restrictive Practices in Mental Health Services* (National Mental Health Commission, 2015) *Seclusion and Restraint Project: Report* (Melbourne Social Equity Institute, 2014) http://www.mentalhealthcommission.gov.au/our-work/definitions-for-mechanical-and-physical-restraint-in-mental-health-services/our-position-paper-a-case-for-change.aspx https://mhsa.aihw.gov.au/services/restrictive_practices/	Substantial reductions in the use of seclusion and restraint across 11 services (no specific figures found).

UK's REsTRAIN YOURSELF	RRN website http://restraintreductionnetwork.org/latest-news/restrain-yourself/ (demonstrated the use of driver diagrams and PDSA (Plan, Do, Study, Act) cycles for each of the six strategies)	42% reduction in use of restraints across all wards that implemented the improvements during the six-month period.
Finland's cluster-RCT study	Cluster-Randomized Controlled Trial of Reducing Seclusion and Restraint in Secured Care of Men With Schizophrenia (Putkonen et al., 2013)	The proportion of patient-days with seclusion, restraint, or room observation declined from 30% to 15% (p<.001) for intervention wards, and seclusion-restraint time decreased from 110 to 56 hours per 100 patient-days (p<.001). This reduction in seclusion and restraint was also significant when compared to the control wards. Incidents of violence decreased for intervention wards as well as fewer sick days amongst staff resulting from patient-to-staff violence.
US case studies	Effectiveness of *Six Core Strategies*© based on trauma informed care in reducing seclusion and restraint at a child and adolescent psychiatric hospital (Azeem, Aujla, Rammerth, Binsfeld, & Jones, 2011) Successful seclusion and restraint prevention effort in child and adolescent programmes (Caldwell et al., 2014) Multisite study of an evidence-based practice to reduce seclusion and restraint in psychiatric inpatient facilities (Wieman, Camacho-Gonsalves, Huckshorn, & Leff, 2014) The New York State Office of Mental Health Positive Alternatives to Restraint and Seclusion (PARS) Project (Wisdom, Wenger, Robertson, Van Bramer, & Sederer, 2015)	Azeem et al. found prior to the implementation the service had 93 seclusion and restraint events, and in the last six months of the study it reduced to 31 events. Caldwell et al. provides information about three individual child- and family-serving programmes that successfully implemented *Six Core Strategies*© to reduce restrictive practices. Wieman et al. found the services with stabilised implementation had significantly reduced the percentage secluded by 17%, seclusion hours by 19%, and proportion restrained by 30%. The reduction in restraint hours was 55% but nonsignificant (p=.08). Wisdom et al. found the use of restraint and seclusion was significantly reduced at all three sites over the course of the project (trend decrease ranged from 62% to 86%).
Canadian case study	Implementation of the *Six Core Strategies*© for restraint minimization in a specialized mental health organization (Riahi, Dawe, Stuckey, & Klassen, 2016)	Over a three-year period, the total number of mechanical restraint and seclusion incidents decreased by 19.7%. The average length of a mechanical restraint or seclusion incident decreased 38.9%.

References

Alexander, J., & Bowers, L. (2004). Acute psychiatric ward rules: a review of the literature. *Journal of Psychiatric and Mental Health Nursing, 11*(5), 623-631. doi: 10.1111/j.1365-2850.2004.00770.x

Ashmore, T. (2013). *The implementation of trauma informed care in acute mental health inpatient units: a comparative study (Master thesis).* Massey University, Wellington, New Zealand.

Azeem, M. W., Aujla, A., Rammerth, M., Binsfeld, G., & Jones, R. B. (2011). Effectiveness of six core strategies based on trauma informed care in reducing seclusions and restraints at a child and adolescent psychiatric hospital. *Journal of Child and Adolescent Psychiatric Nursing, 24*(1), 11-15. doi: 10.1111/j.1744-6171.2010.00262.x

Batalden, P. B., & Davidoff, F. (2007). What is "quality improvement" and how can it transform healthcare? *Quality and Safety in Health Care, 16*(1), 2.

Beaglehole, B., Beveridge, J., Campbell-Trotter, W., & Frampton, C. (2017). Unlocking an acute psychiatric ward: the impact on unauthorised absences, assaults and seclusions. *BJPsych Bulletin, 41*(2), 92-96. doi: 10.1192/pb.bp.115.052944

Bigwood, S., & Crowe, M. (2008). 'It's part of the job, but it spoils the job': A phenomenological study of physical restraint. *International Journal of Mental Health Nursing, 17*(3), 215-222. doi: 10.1111/j.1447-0349.2008.00526.x

Bowers, L. (2014). Safewards: a new model of conflict and containment on psychiatric wards. *Journal of Psychiatric and Mental Health Nursing, 21*(6), 499-508. doi: 10.1111/jpm.12129

Bowers, L., Van Der Merwe, M., Nijman, H., Hamilton, B., Noorthorn, E., Stewart, D., & Muir-Cochrane, E. (2010). The practice of seclusion and time-out on English acute psychiatric wards: the City-128 study. *Archives of Psychiatric Nursing, 24*(4), 275-286. doi: 10.1016/j.apnu.2009.09.003

Boyle, D., & Harris, M. (2009). *The Challenge of Co-production: How equal partnerships between professionals and the public are crucial to improving public services.* London, England: NESTA.

Brooks, K. L., Mulaik, J. S., Gilead, M. P., & Daniels, B. S. (1994). Patient overcrowding in psychiatric hospital units: Effects on seclusion and restraint. *Administration and Policy in Mental Health and Mental Health Services Research, 22*(2), 133-144. doi: 10.1007/BF02106547

Brophy, L. M., Roper, C. E., Hamilton, B. E., Tellez, J. J., & McSherry, B. M. (2016). Consumers' and their supporters' perspectives on barriers and strategies to reducing seclusion and restraint in mental health settings. *Australian Health Review, 4*, 599-604. doi: 10.1071/ah15128

Bryson, S. A., Gauvin, E., Jamieson, A., Rathgeber, M., Faulkner-Gibson, L., Bell, S., . . . Burke, S. (2017). What are effective strategies for implementing trauma-informed care in youth inpatient psychiatric and residential treatment settings? A realist systematic review. *International Journal of Mental Health Systems, 11*, 36. doi: 10.1186/s13033-017-0137-3

Caldwell, B., Albert, C., Azeem, M. W., Beck, S., Cocoros, D., Cocoros, T., . . . Reddy, B. (2014). Successful seclusion and restraint prevention effort in child and adolescent programs. *J Psychosoc Nurs Ment Health Serv, 52*(11), 30-38. doi: 10.3928/02793695-20140922-01

Champagne, T. (2003). *Sensory modulation and environment: Essential elements of occupation.* Southampton, Maryland: Champagne Conference & Consultation.

Champagne, T., & Stromberg, N. (2004). Sensory approaches in inpatient psychiatric settings: innovative alternatives to seclusion & restraint. *Journal of Psychosocial Nursing & Mental Health Services, 42*(9), 34-55.

Cummings, K. S., Grandfield, S. A., & Coldwell, C. M. (2010). Caring with comfort rooms: reducing seclusion and restraint use in psychiatric facilities. *Journal of Psychosocial Nursing & Mental Health Services, 48*(6), 26-30. doi: 10.3928/02793695-20100303-02

Daffern, M., Mayer, M., & Martin, T. (2006). Staff gender ratio and aggression in a forensic psychiatric hospital. *International Journal of Mental Health Nursing, 15*(2), 93-99. doi: 10.1111/j.1447-0349.2006.00408.x

Doedens, P., Maaskant, J. M., Latour, C. H. M., Meijel, B. K. G. v., Koeter, M. W. J., Storosum, J. G., . . . de Haan, L. (2017). Nursing Staff Factors Contributing to Seclusion in Acute Mental Health Care – An Explorative Cohort Study. *Issues in Mental Health Nursing, 38*(7), 584-589. doi: 10.1080/01612840.2017.1297513

Duxbury, J., & Whittington, R. (2005). Causes and management of patient aggression and violence: staff and patient perspectives. *Journal of Advanced Nursing, 50*(5), 469-478. doi: 10.1111/j.1365-2648.2005.03426.x

Fisher, W. A. (1994). Restraint and Seclusion: A Review of the Literature. *The American Journal of Psychiatry, 151*, 1584-1591.

Fletcher, J., Spittal, M., Brophy, L., Tibble, H., Kinner, S., Elsom, S., & Hamilton, B. (2017). Outcomes of the Victorian Safewards trial in 13 wards: Impact on seclusion rates and fidelity measurement. *International Journal of Mental Health Nursing, 26*(5), 461-471. doi: 10.1111/inm.12380

Gerace, A., Oster, C., O'Kane, D., Hayman, C. L., & Muir-Cochrane, E. (2018). Empathic processes during nurse-consumer conflict situations in psychiatric inpatient units: A qualitative study. *International Journal of Mental Health Nursing 27*(1), 92-105. doi: 10.1111/inm.12298

Goldenhar, L. M., Brady, P. W., Sutcliffe, K. M., & Muething, S. E. (2013). Huddling for high reliability and situation awareness. *BMJ Quality & Safety, 22*(11), 899.

Gordon, S. (2005). The role of the consumer in the leadership and management of mental health services. *Australasian Psychiatry, 13*(4), 362-365. doi: 10.1080/j.1440-1665.2005.02215.x

Goulet, M.-H., & Larue, C. (2016). Post-Seclusion and/or Restraint Review in Psychiatry: A Scoping Review. *Archives of Psychiatric Nursing, 30*(1), 120-128. doi: https://doi.org/10.1016/j.apnu.2015.09.001

Goulet, M.-H., Larue, C., & Dumais, A. (2017). Evaluation of seclusion and restraint reduction programs in mental health: A systematic review. *Aggression and Violent Behavior, 34*, 139-146. doi: 10.1016/j.avb.2017.01.019

Goulet, M.-H., Larue, C., & Lemieux, A., J. (2017). A pilot study of "post-seclusion and/or restraint review" intervention with patients and staff in a mental health setting. *Perspectives in Psychiatric Care, 54*(2), 212-220. doi: doi:10.1111/ppc.12225

Greenwood, P. (2015). *Implementing the six core restraint reduction strategies with acute mental health inpatient wards across the North West of England.* Paper presented at the CPI RRN Conference 2015, Birmingham, UK.

Gudde, C. B., Olso, T. M., Whittington, R., & Vatne, S. (2015). Service users' experiences and views of aggressive situations in mental health care: a systematic review and thematic synthesis of qualitative studies. *Journal of Multidisciplinary Healthcare, 8*, 449-462. doi: 10.2147/jmdh.s89486

Gum, L. F., Prideaux, D., Sweet, L., & Greenhill, J. (2012). From the nurses' station to the health team hub: how can design promote interprofessional collaboration? *Journal Of Interprofessional Care, 26*(1), 21-27. doi: 10.3109/13561820.2011.636157

Happell, B., & Harrow, A. (2010). Nurses' attitudes to the use of seclusion: A review of the literature. *International Journal of Mental Health Nursing, 19*(3), 162-168. doi: 10.1111/j.1447-0349.2010.00669.x.

Happell, B., & Koehn, S. (2011). Seclusion as a necessary intervention: the relationship between burnout, job satisfaction and therapeutic optimism and justification for the use of seclusion. *Journal of Advanced Nursing, 67*(6), 1222-1231. doi: 10.1111/j.1365-2648.2010.05570.x

Hollands, T., Sutton, D., Wright-St. Clair, V., & Hall, R. (2015). Maori mental health consumers' sensory experience of kapa haka and its utility to occupational therapy practice. *New Zealand Journal of Occupational Therapy, 62*(1), 3-11.

Huckshorn, K. A. (2015). *An Evidence-Based Practice to Prevent Conflict and Violence in Inpatient and Residential Settings.* Paper presented at the CPI RRN Conference 2015, Birmingham, UK.

Ilkiw-Lavalle, O., & Grenyer, B. F. (2003). Differences between patient and staff perceptions of aggression in mental health units. *Psychiatric Services, 54*(3), 389-393. doi: 10.1176/appi.ps.54.3.389

Institute for Healthcare Improvement. (n.d.). Science of Improvement. Retrieved 8th February 2018, from http://www.ihi.org/about/Pages/ScienceofImprovement.aspx

Janssen, W. A., Noorthoorn, E., van Linge, R., & Lendemeijer, B. (2007). The influence of staffing levels on the use of seclusion. *International Journal of Law and Psychiatry, 2007.* doi: 10.1016/j.ijlp.2006.04.005

Kinner, S. A., Harvey, C., Hamilton, B., Brophy, L., Roper, C., McSherry, B., & Young, J. T. (2016). Attitudes towards seclusion and restraint in mental health settings: findings from a large, community-based survey of consumers, carers and mental health professionals. *Epidemiology and Psychiatric Sciences, 26*(5), 535-544. doi: 10.1017/S2045796016000585

Kites Trust. (n.d.). Kites Strategic Plan 2014 - 2017. Retrieved 17 January 2018, from http://www.kites.org.nz/kites/pdf/Kites_Strategic-Plan_2014-2017.pdf

Kontio, R., Joffe, G., Putkonen, H., Kuosmanen, L., Hane, K., Holi, M., & Valimaki, M. (2012). Seclusion and restraint in psychiatry: patients' experiences and practical suggestions on how to improve practices and use alternatives. *Perspectives in Psychiatric Care, 48*(1), 16-24. doi: 10.1111/j.1744-6163.2010.00301.x

Kontio, R., Lantta, T., Anttila, M., Kauppi, K., & Välimäki, M. (2017). Family Involvement in Managing Violence of Mental Health Patients. *Perspectives in Psychiatric Care, 53*(1), 55-66. doi: 10.1111/ppc.12137

LeBel, J., Huckshorn, K. A., & Caldwell, B. (2014). Preventing seclusion and restraint in residential programs. In G. M. Blau, B. Caldwell & R. E. Lieberman (Eds.), *Residential Interventions for Children, Adolescents and Families: A Best Practice Guide* (pp. 110-125). New York: Routledge.

Lee, S. J., Cox, A., Whitecross, F., Williams, P., & Hollander, Y. (2010). Sensory assessment and therapy to help reduce seclusion use with service users needing psychiatric intensive care. *Journal of Psychiatric Intensive Care, 6*(02), 83-90.

Leerbeck, S. M., Mainz, J., & Boggild, H. (2017). Use of coercion at Danish psychiatric wards by day of week and time of day. *Danish Medical Journal, 64*(8), 1-6.

Lindsey, P. L. (2009). Psychiatric nurses' decision to restrain: the association between empowerment and individual factors. *Journal of Psychosocial Nursing & Mental Health Services, 47*(9), 41-49. doi: 10.3928/02793695-20090730-02

Lloyd, C., King, R., & Machingura, T. (2014). An investigation into the effectiveness of sensory modulation in reducing seclusion within an acute mental health unit. *Advances in Mental Health, 12*(2), 93-100. doi: 10.1080/18374905.2014.11081887

McLeod, M., King, P., Stanley, J., Lacey, C., & Cunningham, R. (2017). Ethnic disparities in the use of seclusion for adult psychiatric inpatients in New Zealand. *The New Zealand Medical Journal, 130*(1454), 30-39.

Meehan, T., Vermeer, C., & Windsor, C. (2000). Patients' perceptions of seclusion: a qualitative investigation. *J Adv Nurs, 31*(2), 370-377.

Melbourne Social Equity Institute. (2014). *Seclusion and Restraint Project: Report.* Melbourne: University of Melbourne.

Mellow, A., Tickle, A., & Rennoldson, M. (2017). Qualitative systematic literature review: the experience of being in seclusion for adults with mental health difficulties. *Mental Health Review Journal, 22*(1), 1-15. doi: doi:10.1108/MHRJ-04-2016-0007

Ministry of Health. (2008). *Office of the Director of Mental Health Annual Report 2007.* Wellington: Ministry of Health.

Ministry of Health. (2009). *Office of the Director of Mental Health Annual Report 2008*. Wellington: Ministry of Health.
Ministry of Health. (2010). *Office of the Director of Mental Health Annual Report 2009*. Wellington: Ministry of Health.
Ministry of Health. (2011). *Office of the Director of Mental Health Annual Report 2010*. Wellington: Ministry of Health.
Ministry of Health. (2012a). *Office of the Director of Mental Health Annual Report 2011*. Wellington: Ministry of Health.
Ministry of Health. (2012b). *Rising to the Challenge: The Mental Health and Addiction Service Development Plan 2012-2017*. Wellington: Ministry of Health.
Ministry of Health. (2013). *Office of the Director of Mental Health Annual Report 2012*. Wellington: Ministry of Health.
Ministry of Health. (2014). *Office of the Director of Mental Health Annual Report 2013*. Wellington: Ministry of Health.
Ministry of Health. (2015). *Office of the Director of Mental Health Annual Report 2014*. Wellington: Ministry of Health.
Ministry of Health. (2016). *Office of the Director of Mental Health Annual Report 2015*. Wellington: Ministry of Health.
Ministry of Health. (2017a). *Mental Health and Addiction Workforce Action Plan 2017–2021*. Wellington, New Zealand: Ministry of Health.
Ministry of Health. (2017b). *Office of the Director of Mental Health Annual Report 2016*. Wellington: Ministry of Health.
Morrison, P., & Lehane, M. (1995). Staffing levels and seclusion use. *Journal of Advanced Nursing, 22*(6), 1193-1202. doi: 10.1111/j.1365-2648.1995.tb03122.x
Muir-Cochrane, E. C., Baird, J., & McCann, T. V. (2015). Nurses' experiences of restraint and seclusion use in short-stay acute old age psychiatry inpatient units: a qualitative study. *Journal of Psychiatric and Mental Health Nursing, 22*(2), 109-115. doi: 10.1111/jpm.12189
Nakarada-Kordic, I., & McKenna, B. (2011). *Environmental Factors and Outcomes in Mental Health Clinical Settings: A Review of the Literature*. Auckland, New Zealand: Te Pou o te Whakaaro Nui.
National Association of State Mental Health Program Directors. (2008). *Six Core Strategies to Reduce Seclusion and Restraint Use*. Alexandria, VA: NASMHPD Publications. Retrieved from https://www.nasmhpd.org/content/six-core-strategies-reduce-seclusion-and-restraint-use.
National Mental Health Commission. (2015). *A Case for Change: Position Paper on seclusion, restraint and restrictive practices in mental health services*: National Mental Health Commission.
New Zealand Mental Health and Addictions KPI Programme. (2017). Dashboard For Financial Years 2013/14 to 2016/17. Retrieved 19 December 2017, from https://www.mhakpi.health.nz/Data/Data/Adult-FY-2013-14-to-2016-17
Nursing Council of New Zealand. (2011). *Guidelines for Cultural Safety, the Treaty of Waitangi and Maori Health in Nursing Education and Practice*. Wellington, New Zealand: Nursing Council of New Zealand.
Pollard, R., Yanasak, E. V., Rogers, S. A., & Tapp, A. (2007). Organizational and unit factors contributing to reduction in the use of seclusion and restraint procedures on an acute psychiatric inpatient unit. *The Psychiatric Quarterly, 78*(1), 73-81.
Putkonen, A., Kuivalainen, S., Louheranta, O., Repo-Tiihonen, E., Ryynänen, O.-P., Kautiainen, H., & Tiihonen, J. (2013). Cluster-randomized controlled trial of reducing seclusion and restraint in secured care of men with schizophrenia. *Psychiatric Services, 64*(9), 850-855. doi: 10.1176/appi.ps.201200393

Repper, J., & Carter, T. (2011). A review of the literature on peer support in mental health services. *Journal of Mental Health, 20*(4), 392-411. doi: 10.3109/09638237.2011.583947

Riahi, S., Dawe, I. C., Stuckey, M. I., & Klassen, P. E. (2016). Implementation of the Six Core Strategies for Restraint Minimization in a Specialized Mental Health Organization. *Journal of Psychosocial Nursing and Mental Health Services, 54*(10), 32-39. doi: 10.3928/02793695-20160920-06

Riahi, S., Thomson, G., & Duxbury, J. (2016). An integrative review exploring decision-making factors influencing mental health nurses in the use of restraint. *Journal of Psychiatric and Mental Health Nursing, 23*(2), 116-128. doi: 10.1111/jpm.12285

Roper, C., Grey, F., & Cadogan, E. (2018). *Co-Production: Putting Principles into Practice in Mental Health Contexts.* Melbourne, Victoria: The University of Melbourne.

Scanlan, J. N. (2010). Interventions to reduce the use of seclusion and restraint in inpatient psychiatric settings: what we know so far a review of the literature. *The International Journal of Social Psychiatry, 56*(4), 412-423. doi: 10.1177/0020764009106630

Scholz, B., Gordon, S., & Happell, B. (2017). Consumers in mental health service leadership: A systematic review. *International Journal of Mental Health Nursing, 26*(1), 20-31. doi: 10.1111/inm.12266

Scottish Patient Safety Programme. (2016). *SPSP Mental Health: End of Phase Report November 2016.* Scotland: Healthcare Improvement Scotland.

Standards New Zealand. (2008a). *Health and Disability Services (General) Standards: NZS 8134.0:2008.* Wellington, New Zealand: Ministry of Health.

Standards New Zealand. (2008b). *Health and Disability Services (Restraint Minimisation and Safe Practice) Standards: NZS 8134.2:2008.* Wellington, New Zealand: Ministry of Health.

Strauss, J. L., Zervakis, J. B., Stechuchak, K. M., Olsen, M. K., Swanson, J., Swartz, M. S., . . . Oddone, E. Z. (2013). Adverse impact of coercive treatments on psychiatric inpatients' satisfaction with care. *Community Mental Health Journal, 49*(4), 457-465. doi: 10.1007/s10597-012-9539-5

Substance Abuse and Mental Health Services Administration. (2014). *SAMHSA's Concept of Trauma and Guidance for Trauma-Informed Approach.* Rockville, MD: Substance Abuse and Mental Health Services Administration.

Sutton, D., & Nicholson, E. (2011). *Sensory modulation in acute mental health wards: A qualitative study of staff and service user perspectives.* Auckland, New Zealand: Te Pou o te Whakaaro Nui.

Sutton, D., Webster, S., & Wilson, M. (2014). *Debriefing Following Seclusion and Restraint: A Summary of Relevant Literature.* Auckland, New Zealand: Te Pou o te Whakaaro Nui.

Te Pou o te Whakaaro Nui. (2007). *Seitapu Pacific Mental Health and Addiction Cultural & Clinical Competencies Framework.* Auckland, New Zealand: Te Pou o te Whakaaro Nui.

Te Pou o te Whakaaro Nui. (2008). *Survey of seclusion and restraint reduction initiatives in New Zealand acute mental health services.* Auckland, New Zealand: Te Pou o te Whakaaro Nui.

Te Pou o te Whakaaro Nui. (2013a). *Reducing Māori seclusion: A summary report with recommendations for managers and leaders of mental health services.* Auckland: Te Pou o te Whakaaro Nui.

Te Pou o te Whakaaro Nui. (2013b). *Six Core Strategies Checklist: New Zealand Adaption.* Auckland: Te Pou o te Whakaaro Nui.

Te Pou o te Whakaaro Nui. (2014a). *Do seclusion reduction initiatives increase risk to staff safety? An integrative review of evidence of association and causality from 2004 to 2014, with recommendations for practice.* Auckland, New Zealand: Te Pou o te Whakaaro Nui.

Te Pou o te Whakaaro Nui. (2014b). *Supporting Seclusion Reduction for Māori: "Taiheretia tātou kia puta te hua".* Auckland, New Zealand: Te Pou o te Whakaaro Nui.

Te Pou o te Whakaaro Nui. (2017a). *Implementation of Sensory Modulation within DHB Mental Health Services: 2017 Stocktake.* Auckland, New Zealand: Te Pou o te Whakaaro Nui.

Te Pou o te Whakaaro Nui. (2017b). *Variation in DHB Seclusion Rates: Mental Health Services.* Auckland, New Zealand: Te Pou o te Whakaaro Nui.

van Boekel, L. C., Brouwers, E. P. M., van Weeghel, J., & Garretsen, H. F. L. (2013). Stigma among health professionals towards patients with substance use disorders and its consequences for healthcare delivery: Systematic review. *Drug & Alcohol Dependence, 131*(1), 23-35. doi: 10.1016/j.drugalcdep.2013.02.018

Waitemata District Health Board. (2011). Seclusion reduction: Implementing and tracking progress of a seclusion reduction strategy in an adult in-patient mental health service.

Webster, S. (2013). *Health Professional's Experiences of Implementing Seclusion and Restraint Reduction Strategies in an Acute Mental Health Unit.* (Honours Dissertation), Auckland University of Technology, Auckland, New Zealand.

West, M., Melvin, G., McNamara, F., & Gordon, M. (2017). An evaluation of the use and efficacy of a sensory room within an adolescent psychiatric inpatient unit. *Australian Occupational Therapy Journal, 64*(3), 253-263. doi: 10.1111/1440-1630.12358

Wharewera-Mika, J., Cooper, E., McKenna, B., Wiki, N., Field, T., Haitana, J., . . . Edwards, E. (2013). *Strategies to reduce the use of seclusion and restraint with tāngata whai i te ora.* Auckland, New Zealand: Te Pou o te Whakaaro Nui.

Wharewera-Mika, J., Cooper, E. P., Wiki, N. R., Field, T. R., Haitana, J., Toko, M., . . . McKenna, B. R. (2016). Strategies to reduce the use of seclusion with tangata whai i te ora (Maori mental health service users). *International Journal of Mental Health Nursing, 25*(3), 258-265. doi: 10.1111/inm.12219

Wieman, D. A., Camacho-Gonsalves, T., Huckshorn, K. A., & Leff, S. (2014). Multisite study of an evidence-based practice to reduce seclusion and restraint in psychiatric inpatient facilities. *Psychiatric Services, 65*(3), 345-351. doi: 10.1176/appi.ps.201300210

Wiglesworth, S., & Farnworth, L. (2016). An Exploration of the Use of a Sensory Room in a Forensic Mental Health Setting: Staff and Patient Perspectives. *Occupational Therapy International, 23*(3), 255-264. doi: 10.1002/oti.1428

Williams, J. E., & Rachel, E. M. (2001). Relationship of Less Restrictive Interventions with Seclusion/Restraints Usage, Average Years of Psychiatric Experience, and Staff Mix. *Journal of the American Psychiatric Nurses Association, 7*(5), 139-144. doi: 10.1067/mpn.2001.118178

Wisdom, J. P., Wenger, D., Robertson, D., Van Bramer, J., & Sederer, L. I. (2015). The New York State Office of Mental Health Positive Alternatives to Restraint and Seclusion (PARS) Project. *Psychiatric Services, 66*(8), 851-856. doi: 10.1176/appi.ps.201400279

Wolfaardt, T. (2013). *An Evaluation of the Efficacy of the Six Core Strategies Intervention to Reduce Seclusion and Restraint Episodes in an Acute Mental Health Unit.* (Honours Dissertation), Auckland University of Technology, Auckland, New Zealand.

Yang, C.-P. P., Hargreaves, W. A., & Bostrom, A. (2014). Association of Empathy of Nursing Staff With Reduction of Seclusion and Restraint in Psychiatric Inpatient Care. *Psychiatric Services, 65*(2), 251-254. doi: 10.1176/appi.ps.201200531

Zendjidjian, X. Y., Auquier, P., Lançon, C., Loundou, A., Parola, N., Faugère, M., & Boyer, L. (2014). Determinants of patient satisfaction with hospital health care in psychiatry: results based on the SATISPSY-22 questionnaire. *Patient preference and adherence, 8*, 1457-1464. doi: 10.2147/PPA.S67641

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