Adaptation of the Safewards model to the New Zealand context
A mixed-methods evaluative study

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Abstract

Background: Mental health inpatient units can provide a sanctuary for people to recover from mental illness. However, research has shown these units to be sites of conflict, in an environment that service users do not experience as therapeutic. To support a therapeutic environment, the safety and wellbeing of service users and staff need protection through reduced conflict and containment rates. Conflict can be physical or verbal aggression, self-harm, suicide attempt, absconding, substance misuse and medication refusal. Containment involves methods used to control conflict, including administration of sedative medication, coerced intramuscular medication, increased level of observation, restraint and seclusion. The Safewards model, originating in the United Kingdom in 2015, proposes 10 interventions to address conflict and containment. These interventions are centred on: therapeutic relationships; person-centeredness; teamwork; and least restrictive care. This research pursued active transformation through co-design of an adapted Safewards model to fit the socio-cultural context of New Zealand.

Objective: This thesis with publication describes the adaptation of the Safewards model to the New Zealand context. Cultural adaptation was critical due to significant health outcome disparities between Māori and non-Māori populations and the disproportionate representation of Māori within mental health services. The research sought to discover what a New Zealand model required, what the perspectives of inpatient tangata whai ora and staff were of the developed model and what changes it made to rates of conflict, containment and the ward atmosphere.

Participants: Tangata whai ora and staff from the study setting were recruited to participate in focus groups before and after the implementation of the New Zealand Safewards model. Phase one focus groups included 15 staff and three tangata whai ora. Phase three focus groups included 13 staff and four tangata whai ora.

Methods: This is a mixed-methods evaluative study structured into three distinct phases, using methods of participatory action research. The adapted Safewards model was implemented for 12 months, with a staggered introduction of 11 interventions. Qualitative data were derived from the thematic analysis of focus groups. Quantitative data were from the Patient-Staff Conflict Checklist, Essen Climate Evaluation Schema, Fidelity Checklist and Te Whatu Ora Waikato service data.

Findings: A New Zealand Safewards model must: reflect a Te Ao Māori worldview; align with current practices; adapt Safewards interventions; and gain acceptance. Change management is one process that can reduce barriers to change. The adapted Safewards model reduced conflict, increased patient cohesion and improved the sense of safety perceived from staff and tangata whai ora in the study setting. The outcomes of this study hold the potential to contribute to the formulation and implementation of a New Zealand Safewards model, while also bearing relevance for the international adaptation of Safewards to culturally diverse countries and healthcare systems.

Keywords: Inpatient; nursing care; psychiatric nursing; risk management; safety.

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Glossary of Māori words

Term	Definition
Aroha	Love, care, compassion
Awhi	Surround, embrace, cherish
Kai	Food, meal, to eat
Kaitakawaenga	Mediator, arbitrator
Kanohi ki te kanohi	Face-to-face, in person
Kapa haka	Haka group, Māori cultural group, Māori performing group
Karakia	Recite ritual chants, say grace, pray, recite a prayer, chant
Kaupapa	Policy, plan, purpose
Kaupapa Māori	An avenue for Māori to enact health care within a Māori worldview
Kete	Basket, kit
Mahitahi	A culturally responsive co-design methodology
Mahuru	Soothed, set at rest, settled, calmed
Mana	Prestige, influence, power
Manaakitanga	Hospitality, kindness, generosity
Māori	Indigenous New Zealander, an indigenous person of Aotearoa/New Zealand
Marae	Open area in front of a Māori meeting house
Maramataka	Māori lunar calendar
Matariki	Cluster of stars, for many Māori, marks the start of a new year
Mātauranga Māori	Knowledge of everything in the universe; what you can see and can't see
Mau rākau	Traditional Māori martial art based on traditional weapons
Meihana	Māori model of health, using double hulled canoe to fuse clinical and cultural competencies
Mihimihi	Initial greeting engagement
Poroporaki/whakamutunga	Closing the session
Pākehā	English, foreign, European, exotic - introduced from or originating in a foreign country
Pepepha	How you introduce yourself, identifying who you are, where you're from and where you belong
Poi	Light ball on a string twirled rhythmically to waiata.

Pono	Be true, honest, genuine
Pōwhiri	To welcome, invite, beckon, wave
Puoro	Sing, music, instruments
Rongoā Māori	Traditional Māori healing system
Taha hinengaro	Mental health
Taha tinana	Physical health
Taha wairua	Spiritual health
Taiao	Environment, nature, world
Tāngata whai ora	Person in search of wellbeing. Service user is used in the global context
Te Ao Māori	The Māori world, respect and acknowledgement of Māori customs and protocols
Te Pae Māhutonga	Māori model of health; the Southern Cross Star Constellation is used for modern health promotion
Te Pou	A not-for-profit, national workforce development centre
Te reo Māori	Māori language
Te Tiriti o Waitangi	The Treaty of Waitangi, New Zealand's founding document, meant to be a partnership between Māori and the British Crown
Te Whare Tapa Wha	Māori health model; presented as a wharenui (meeting house)
Te Whatu Ora	Health New Zealand
Te Wheke	Māori model of health; an octopus is used to define family health
Tikanga	Correct procedure, custom
Utu	Balance and harmony in relationships
Waiata	Sing, song, chant
Waikato	Fourth largest region in New Zealand; North Island
Waka	Māori watercraft, usually canoes
Whakamoemiti	Morning meeting to give praise and express thanks
Whakaute	Respect, tend to, care for
Whakawhanaungatanga	Process of establishing relationships, relating well to others
Whānau	Extended family, family group, sometimes used to include friends who may not have any kinship ties
Whare	House, building, dwelling

Glossary of abbreviations

ACNM	Associate Charge Nurse Manager
ADKAR	Awareness, Desire, Knowledge, Ability and Reinforcement
ANOVA	Analysis of Variance
BNM	Bad News Mitigation
CDM	Calm Down Methods
CME	Clear Mutual Expectation
CNM	Charge Nurse Manager
COVID-19	Coronavirus Disease
CPSLE	Consumer, peer support and lived experience
DASA	Dynamic Appraisal of Situational Aggression
DHB	District Health Board
DM	Discharge Messages
EN	Enrolled Nurse
EssenCES	Essen Climate Evaluation Schema
HoNOS	Health of the Nation Outcome Scales
HREC	Human Research Ethics Committee
JBI	Joanna Briggs Institute
KEO	Know Each Other
LSA	Low Stimulus Area
MDT	Multi-Disciplinary Team
MHA	Mental Health Assistant
MHA	Mental Health Act
MHM	Mutual Help Meetings
MMR	Mixed-Method Research
NHS	National Health Service
O/S	Open Side

PAR	Participatory Action Research
PCC	Patient-Staff Conflict Checklist
PP	Powhiri Process
PRISMA	Preferred Reporting Items for Systematic Reviews and Meta-Analyses
PRN	Pro Re Nata, in this context referring to as required medication
PW	Positive Words
RCT	Randomised Controlled Trial
Re	Reassurance
RN	Registered Nurse
RTC	Releasing Time to Care
SPEC	Safe Practice Effective Communication
SW	Soft Words
TD	Talk Down
UK	United Kingdom

Definition of terms

It is necessary to define specific terms that are used throughout this thesis.

Tangata whai ora is the preferred term for a service user or patient in New Zealand, and translates from te reo Māori as a person seeking wellness (Community Liaison Committee of the Royal Australian and New Zealand College of Psychiatrists, 2000; Ministry of Health, 2008). Tangata whai ora will be used in this study when referencing a New Zealand context and service users will be used in an international context. A whānau is a te reo Māori word which refers to extended family (Community Liaison Committee of the Royal Australian and New Zealand College of Psychiatrists, 2000).

Conflict is behaviour that puts the safety of the ward at risk (Bowers et al., 2003). Conflict in a mental health context describes incidents of physical or verbal aggression, self-harm, suicide attempt, absconding, substance misuse and medication refusal (Bowers, 2014; Bowers et al., 2003).

Containment is the different methods staff use to control conflict behaviours (Bowers et al., 2003). Containment in mental health settings include administration of sedative medication, coerced intramuscular medication, increased level of observation, restraint and seclusion (Bowers, 2014; Bowers et al., 2003).

Mental disorder is defined in the Mental Health (Compulsory Assessment and Treatment) Act (Ministry of Health, 1992) as either continuous or intermittent abnormal state of mind that includes: delusions or mood disorders; or altered perception, volition or cognition. This experience occurs to such a level that it risks the safety of the person or others, or effects the ability of the person to care for themselves.

Recovery is having the ability to live well in the presence or absence of mental illness (Mental Health Commission, 1998). New Zealand also uses the term well-being where, whether a mental illness is diagnosed or not, an individual has the skills, support and environment to enjoy a meaningful life (Mental Health Foundation of New Zealand, 2021). A well-being model in New Zealand is the Māori health model Te Whare Tapa Wha which focuses on needing to balance: Taha Wairua (spiritual health), Taha Tinana (physical health), Taha Hinengaro (psychological health) and Taha Whānau (family health) (Ministry of Health, 2017).

Acute inpatient mental health services are, ideally, safe environments for 24-hour care of acute mental health symptoms (Bowers et al., 2005). The experiences of consumers are that these services are not always safe (Cutler et al., 2020). They are designed for periods of short-term treatment (Bowers et al., 2005). Care consists of assessment and treatment of symptoms, with support from a multidisciplinary team (Jenkin et al., 2021).

Registered nurses (RN) work under a scope of practice outlined by their regulatory authority Nursing Council of New Zealand (New Zealand Nursing Council, 2007), to use their nursing knowledge and assessment skills to provide care, education and support to people and their families to manage their health. Psychiatric assistants work under the delegation of registered nurses to meet the needs of people being cared for within mental health services (Taranaki District Health Board, 2018). At Te Whatu Ora Waikato mental health assistants (MHA) is the preferred term for this role. Enrolled nurses (EN) practise under the direction and delegation of RNs to deliver nursing care and health education (Nursing Council of New Zealand, n.d.).

In 2022, the Ministry of Health created a health plan that saw the reformation of 20 district health boards into four regions, including the creation of Te Whatu Ora (Health New Zealand) and Te Aka Whai Ora (Māori Health Authority) (Te Whatu Ora & Te Aka Whai Ora, 2022). Te Whatu Ora Waikato is situated in Hamilton city, New Zealand, and is part of Te Manawa Taki, one of the four regions

Chapter 1: Introduction

The art and science of asking questions is the source of all knowledge

Thomas Berger, 1924-2014

1.1 Introduction

In New Zealand, mental health care transitioned from care and treatment in separate psychiatric hospitals to the hospital and community model between the 1960s to 1990s (Haines & Abbott, 1985). Care is now provided in hospital-based inpatient mental health facilities, community-based services and under contracts with non-government organisations (Controller and Auditor-General, 2017). There are a range of acute and inpatient services, including acute home-based treatment and crisis respite (Te Hiringa Mahara New Zealand Mental Health and Wellbeing Commission, 2024). Mental health settings have transformed significantly since deinstitutionalisation and now hospital-level care is increasingly regarded as the last line intervention for short term stabilisation when community care attempts have been exhausted (Jenkin et al., 2023; Novella, 2010). Unfortunately, underfunded community mental health services have struggled to keep up with the high demand (Patterson et al., 2018). Acute inpatient care is still a crucial aspect of mental health services (Stenhouse, 2013). These services are often not visible to the public and may seem as mysterious as historic asylums (Jenkin et al., 2023). When people are discharged from the hospital, they are discharged into the care of either community mental health services or their general practice (Controller and Auditor-General, 2017). The setting of this study is a hospital-based inpatient mental health unit.

This thesis used methods of participatory action research to explore the adaptation of the Safewards model to the New Zealand context, emphasising the importance of cultural adaptation due to significant health outcome disparities between Māori and non-Māori populations and the disproportionate representation of Māori within mental health services. The research aims to determine the requirements for a New Zealand-specific model, gather perspectives from inpatient tangata whai ora and staff, and evaluate the model's impact on conflict, containment and ward atmosphere. This mixed-methods evaluation was implemented over 12 months. Qualitative data, through thematic analysis of focus groups involving staff and tangata whai ora, and quantitative data, was gathered as part of the evaluation. This comprehensive evaluation aims to understand the effectiveness of the adapted Safewards model in reducing conflict and containment and improving the therapeutic environment within New Zealand inpatient mental health services.

1.1 Inpatient mental health units

The purpose of inpatient mental health services is short-term assessment and treatment of mental illness that poses such a degree of risk to the person or others that the person cannot be cared for safely in the community (Cleary, 2004). Acute inpatient care is provided through a contained and continually staffed ward environment (Bowers et al., 2005). The reasons that a person may be admitted into inpatient care are: risk of harm to themselves or others; suffering from symptoms of a severe mental illness; family or community need respite; insufficient support and supervision available in the community (Bowers et al., 2005). The functions of an acute inpatient mental health unit are: safety; assessment; treatment; supporting self-care; assessment and treatment of physical health (Bowers et al., 2005).

A good inpatient mental health unit functions with warm therapeutic relationships, respectful interactions, information or choice about treatment and formal or informal talk therapy (Cutcliffe et al., 2015). Across studies, a central theme is that service users expect individual staff attention; this also facilitates the meeting of their other needs (Hopkins et al., 2009). Peplau (1991) defines nursing as an interpersonal and therapeutic process that occurs when nurses engage in therapeutic relationships with service users. Therapeutic engagement and relationships are important influences on all service user outcomes (Wykes et al., 2018). In addition to the important role staff play, the therapeutic environment is essential in a good inpatient mental health unit (Donald et al., 2015).

Physical inpatient environments are often described by service users as sterile and boring places (Donald et al., 2015). Balancing hygiene and safety requirements within a hospital setting, with creating a sense of homeliness, can support wellbeing within health services (Duque et al., 2020). Homeliness can be generated through service-specific personal possessions; visual displays; familiar routines and meals; staff care and engagement (Duque et al., 2020). A therapeutic ward environment supports formal and informal interactions between staff and service users and offers sufficient amenities (Donald et al., 2015). Receiving care for a mental illness whilst sharing a confined space with many others presents its challenges; identifying the ward as a collective space of care reinforces a recovery-focused and therapeutic environment (Donald et al., 2015).

Modern acute mental health units offer a wider range of spaces to accommodate diverse presentations and provide greater access to therapeutic outdoor areas (Jenkin et al., 2023). They now prioritise indoor environments, including air quality, natural light and aesthetic appeal to

support the recovery process (Jenkin et al., 2023). A New Zealand case study by Jenkin et al. (2023) found five themes in regards to their exploration of design and social milieu of acute adult inpatient mental health units: (a) incorporating cultural and spiritual values and needs and family/whānau visitors; (b) the need for outdoor spaces and access to nature and fresh air; (c) lack of therapies, models of care and meaningful activities; (d) issues around safety and violence in the unit; and (e) visibility of units, entry thresholds and wayfinding. Inpatient admission can be a refuge for people with significant stressors in the community (Duhig et al., 2017).

1.2 Sanctuary model

One model for thinking about inpatient environments is the sanctuary model. Admission can provide: food and shelter; human connection; a sense of belonging; feeling cared for (Duhig et al., 2017). Inpatient mental health units may be considered sanctuaries as they are environments for emotional and physical safety that allow service users the opportunity to recuperate and rebuild through the supportive care of others (Duhig et al., 2017; Farragher & Bloom, 2013; Kennedy et al., 2019). Within a sanctuary, people learn together how to resolve conflicts, have a voice and can contribute, participate in work that expresses themselves, learn together to adapt whilst still maintaining their sense of selves and work toward their future goals (Farragher & Bloom, 2013). The Sanctuary model (Figure 1, Adapted from Farragher and Bloom (2013)), is a template for changing the delivery of social services so that staff are better able to respond to the complex needs of trauma survivors (Bloom et al., 2003).

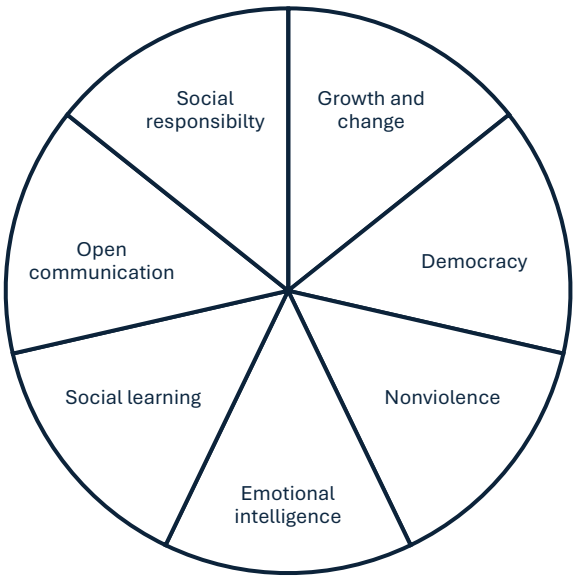

Figure 1: *The Sanctuary model*

Change is constant and challenging but necessary (Farragher & Bloom, 2013). Re-enactment is the largest barrier to change (Farragher & Bloom, 2013). People can feel unsettled when asked to change, because they have to stop doing what they've done in the past, which they've naturally formed an attachment to (Farragher & Bloom, 2013). Changing the automation that makes up a habit is difficult and takes time (Farragher & Bloom, 2013). People with trauma have reduced capacity to choose their actions and instead resort to familiar and repetitive behaviour, even if it is self-destructive (Farragher & Bloom, 2013). Children, with early encounters with mental health services, may not have been helped when distressed by the people that were meant to help them and now cannot ask for help directly; this cry for help is now communicated through what staff may label as symptoms (Farragher & Bloom, 2013). Preventing re-enactment to encourage change requires creativity and teamwork from trusted individuals (Farragher & Bloom, 2013). The sanctuary model is committed to growth and change; services and individuals within them need to learn how to manage change anxiety whilst simultaneously asserting change (Farragher & Bloom, 2013).

Democracy is essential to the function of a healthy organisation and within sanctuaries is a participatory democracy, hearing from all people and involving them in decision making (Farragher & Bloom, 2013). In this setting democracy is less of a behaviour and more of an awareness that prevents abuse of power from occurring (Farragher & Bloom, 2013). Participatory democracy is important within trauma-informed settings for four reasons: (a) minimises abuse of power; (b) necessary for meeting the seven Sanctuary commitments; (c) assists creative and flexible problem solving of complex problems; (d) antidote to traumatic experience (Farragher & Bloom, 2013). People must feel safe to participate in environments and committing to democracy and non-violence supports this (Farragher & Bloom, 2013). Free speech is an important aspect of democracy and non-violence supports it by extinguishing rising conflict and using emotional intelligence skills assists people to communicate with one another while effectively controlling emotions (Farragher & Bloom, 2013).

Many service users are victims of violence, so a commitment to a non-violent and trauma-informed environment is essential for trauma survivors (Bloom et al., 2003). The Sanctuary model endorses non-violence to not only reduce coercion towards service users, but also for the safety of staff and families (Farragher & Bloom, 2013). Non-violence isn't passivity, but utilising disciplined leadership and showing people that there are other ways of having their needs met rather than through violence, encouraging transformative change (Farragher & Bloom, 2013). A safe work

environment is free from abusive relationships, people are connected into a supportive network, emotional intelligence is high, boundaries are safe and people effectively work together (Farragher & Bloom, 2013). Physical safety within inpatient mental health services has always been important but can create environments that feel contained and untherapeutic (Farragher & Bloom, 2013). Responses to service user violence can include containment measures such as restraint and seclusion which strip the person of respect and power and can counterintuitively increase the risk of future violence (Farragher & Bloom, 2013). Physical violence is a portrayal of internal pain, which is often questioned with "what's wrong with you?" instead of "what's happened to you?" (Farragher & Bloom, 2013). Committing to non-violence is difficult and requires significant control, reflection and team support (Farragher & Bloom, 2013)

Emotional intelligence enables staff to cope with the challenging emotions of the people that use the organisation (Farragher & Bloom, 2013). All types of employment can contribute to negative feelings, including anxiety, fear or anger and, when working in roles that engage with people experiencing emotional dysregulation, these feelings can be intensified (Farragher & Bloom, 2013). A healthy organisation acknowledges that these emotions are inevitable and creates a safe space for people to discuss and move on from the situations that generated the emotions (Farragher & Bloom, 2013). Service leaders need to role model emotional intelligence, acknowledge the emotional stress of these roles and support staff's healthy expression of emotions to prevent harmful expression that can affect productivity and morale (Farragher & Bloom, 2013). Staff habitually help emotionally dysregulated service users learn about the motivation behind their behaviours and feelings, but to be emotionally intelligent staff, need to know themselves and each other too (Farragher & Bloom, 2013).

In addition to emotional intelligence, services need to commit to social learning, a living-learning environment which decreases the risk of making mistakes by learning from the knowledge and experience of a diverse group of people (Farragher & Bloom, 2013). A learning organisation is one that: adapts to change; expects everyone to be learning all the time; values and includes everyone (Farragher & Bloom, 2013). Decisions can be required to be made on behalf of a service user and these decisions are best made as part of a group, as service users can sometimes trigger emotions in a staff member who are going through their own challenges (Farragher & Bloom, 2013). Our decisions can also be impaired when working under stress, but personal values, organisational policy and least resistive care must be recalled, and decisions reviewed collectively when the challenging situation has passed (Farragher & Bloom, 2013). Healthy services constantly evaluate

what they're doing versus what they believe and work to close this gap, which should promote growth and change (Farragher & Bloom, 2013). Staff and services users are both students and teachers within these services (Farragher & Bloom, 2013). Continued social learning supports better decision-making by including everyone and improves our ability to adapt to changing conditions (Farragher & Bloom, 2013).

Open communication is knowing how to respond appropriately through: consideration of unconscious feelings; effective interpersonal communication; bringing down discriminatory barriers; organisation transparency (Farragher & Bloom, 2013). An organisation that commits to open communication supports open, direct and honest communication (Farragher & Bloom, 2013). Unclear communication is clarified, conversations are face-to-face, communication failures are lessons, boundaries and privacy replace secrets and lying and communicators work to be consistent (Farragher & Bloom, 2013). Communicating with other people can be complicated and barriers to effective communication can be: physical; psychological; social; philosophical (Farragher & Bloom, 2013). To add to the difficulty, communication types include: formal or informal; verbal or non-verbal; hierarchal (Farragher & Bloom, 2013). It's easy to see how miscommunication can occur, especially in settings with diverse staff and those working in stressful environments (Farragher & Bloom, 2013). Awareness of how things are said can support a non-violent environment, where people can effectively confront negative behaviour without triggering adverse emotions or retaliation (Farragher & Bloom, 2013). Leaders within organisations need to be transparent, remove communication barriers and be able to identify where communication is going wrong (Farragher & Bloom, 2013).

Social responsibility is about balancing a person's rights and responsibilities with those of the community (Farragher & Bloom, 2013). People, historically and still today, can treat people with mental illness in a punitive, coercive and patronising way (Farragher & Bloom, 2013). The ability to feel empathy, that is to put yourself in someone else's shoes, is a trait that awakens positive emotions including altruism, forgiveness and benevolence (Farragher & Bloom, 2013). In contrast, another human trait is the feeling to enact punishment, when injustice is felt to have been committed (Farragher & Bloom, 2013). Managing this punitive instinct within a Sanctuary model is important to prevent a cycle of escalating behaviours and punitive responses because punishment as an intervention does not work very well, especially when some service users have already spent their lives being hurt (Farragher & Bloom, 2013). To avoid the bystander effect, witnesses of this behaviour must intercede for the protection of service users, staff and the

organisation (Farragher & Bloom, 2013). One person confronting this behaviour encourages others to do so and this interception is more likely to occur if the staff have witnessed leaders challenging unethical or inappropriate behaviour (Farragher & Bloom, 2013). Love and attachment, which take significant time and effort to form, make a difference, not abuse, coercion or punishment (Farragher & Bloom, 2013).

The effect of the Sanctuary Model, at a minimum, can be evaluated through rates of interpersonal violence and coercive treatment, including seclusion, restraint and medication (Bloom, 2013). More difficult changes to measure include staff attitudes and improved assessments (Bloom, 2013). Early research showed that the Sanctuary Model can be an effective method to reduce violence and coercion in adult mental health services, in particular, the decrease of violence and seclusion rates (Bills & Bloom, 1998). In a scoping review of trauma informed approaches in acute, crisis, emergency and residential mental health care, (Saunders et al., 2023) found six studies that had employed the sanctuary model as a trauma informed care model of change. However, none of these studies explored the use of this approach in adult inpatient or acute settings (Saunders et al., 2023). The Sanctuary Model remains evidence-supported but not yet evidenced-based (Bloom, 2013). However, the outcomes of existing studies show promise for the application of the Sanctuary Model (Bailey et al., 2019). A detailed guidebook, compiled from more than four decades of practice experience, is available online (Yanosy et al., 2015). A limitation is the prolonged three year implementation period and intensive commitment by staff: year one is engaging; year two embedding; and year three evaluation. This may be the reason for the gap in literature in adult inpatient or acute settings. While it is clear that future research is required, particularly within acute adult inpatient mental health units, the Sanctuary Model offers an established framework towards organisation change, violence reduction and providing trauma informed care. The next section will be cover types of conflict that may be experienced within adult inpatient mental health units.

1.3 Conflict

In contradiction to a sanctuary, mental health units can experience episodes of conflict including violence, suicide, self-harm and absconding as well as containment, including PRN medication, special observations and seclusion (Bowers, 2014). These incidences have a reciprocating relationship, where conflict can lead to containment and containment can lead to conflict (Bowers, 2014). Below, examples of inpatient conflict are discussed.

Verbal aggression refers to using words, tone or manner to harm someone, including yelling, insults and verbal threats to harm (McLaughlin et al., 2010). It is the most common form of

aggression on inpatient mental health units and service users or staff can be targeted (Foster et al., 2007). Unfortunately, verbal aggression is a reality of nursing practice and perpetrators can be service users, members of the public or staff (Foster et al., 2007). It is well reported internationally that verbal aggression often leads to physical aggression yet it is frequently underreported by nursing staff due to it being considered a normal aspect of the job (McLaughlin et al., 2009). Despite being less likely to report verbal aggression, mental health services in the UK's National Health Service (NHS) are more than two and a half times more likely than average to experience aggressive behaviours than other services (National Audit Office, 2003). It is important to recognise the impact of verbal aggression and the lasting emotional harm it can cause (Foster et al., 2007).

Physical violence refers to deliberate actions that cause physical harm to another person (Pai & Lee, 2011). In the UK, three-quarters of all nurses have been physically assaulted during their career (Wright et al., 2002). Mental health nurses are around three times more likely than staff in non-mental health settings to be physically assaulted by service users, relatives or staff (Edward et al., 2016). The reasons behind this difference include service user, environment and clinician factors (Niu et al., 2019), as well as the high level of direct nursing care that is required (Anderson, 2002). Staff are aware of the risk of violence in their workplaces, as "violence has long been considered part of the job for nurses. For many, being physically and verbally abused by patients, their relatives or frustrated members of the community has been accepted as just another occupational health hazard" (Armstrong, 2002, p. 25). However, it's not just staff who are at risk of physical violence in mental health services. Service users are also vulnerable, with one-third becoming victims of violence when inpatient and almost half witnessing violence during their stay (Chaplin et al., 2006). Violence represents a real concern in the field of nursing, extending beyond the common perceptions held by the general public (Armstrong, 2002).

There are many different types of violence, with another aspect of conflict in clinical settings being sexual violence. Sexual violence has been defined by the World Health Organization (2002) as "any sexual act, attempt to obtain a sexual act, unwanted sexual comments or advances, or acts to traffic, or otherwise directed, against a person's sexuality using coercion, by any person regardless of their relationship to the victim, in any setting, including but not limited to home and work" (p. 149). Studies show that individuals admitted to mental health units are at an increased risk of experiencing sexual violence, which regrettably may happen often (Care Quality Commission, 2018; McGarry, 2019). According to McGarry (2019), the perpetrators of these assaults can be

service users or staff members. People who experience mental illness experience high rates of victimisation and women are at particular risk while receiving acute mental health care (Ashmore et al., 2015). The impact of sexual violence can be short- and long-term trauma (Campbell et al., 2009).

Self-harm refers to the intentional act of hurting or injuring one's own body, often used as a coping mechanism to deal with intense difficult emotions, overwhelming situations and life events. (Mental Health Foundation of New Zealand, 2022a). Self-harm behaviour in inpatient care can include cutting, head banging and strangulation (James et al., 2012). Internationally, there is a rise in the number of people being treated in mental health hospitals for self-harm (Dake et al., 2023). It is common for secure hospitals to experience incidents of self-harm. and the individuals who engage in this behaviour often rely heavily on staff care, which can strain already limited resources (Dake et al., 2023). Individuals who self-harm have a higher risk of suicide (Chen et al., 2011).

Suicide is when someone intentionally harms themselves in a way that results in death (Bilsen, 2018). Annually, over 800,000 people die by suicide worldwide (World Health Organization, 2014). Between July 2021 and June 2022, 538 people in New Zealand died by suicide, with males being more than twice as likely as females to take their own lives (Mental Health Foundation of New Zealand, 2022b). The suicide rates for Māori remain considerably higher than non-Māori and Pasifika males between the ages of 15-24 have significantly higher rates of suicide compared to older age groups (Mental Health Foundation of New Zealand, 2022b). Suicide is one of the most serious conflict events in mental health and general hospitals, and it contributes to the worldwide public health concern (Shao et al., 2021). According to the National Confidential Inquiry into Suicide and Homicide by People with Mental Illness (2015), nine percent of people who died by suicide in the UK were service users within inpatient mental health services. Inpatient suicide does occur, particularly soon after admission, but it should be preventable with the continuous monitoring and the therapeutic purpose of inpatient units (Appleby et al., 1997; Len Bowers et al., 2010; Stewart et al., 2012). Such incidents can greatly affect the mental health of staff (Pratt & Jachna, 2015). Absconding inpatient care is linked to risk of suicide among people with mental health conditions (Hunt et al., 2016).

Absconding is defined as a service user leaving a hospital without permission from the staff (Meehan et al., 1999). Having medical and legal consequences, absconding may: place the service user or public at risk; disrupt ward climate; and impact staff wellbeing (Bowers et al., 1998; Meehan

et al., 1999). Absconding risks can include: self-harm; self-neglect; violence; treatment non-adherence; and suicide (Bowers et al., 1998). Bowers et al. (1998) continue that beyond these risks, there can be a loss of confidence in the service to protect the wellbeing of service users. Most absconding occurs when the service user is temporarily off the ward with permission (Bowers et al., 1998; Dix & Galvin, 2022). People are most at risk of absconding within the first seven days of admission (Meehan et al., 1999). People that abscond are often: young; male; involuntarily admitted; disadvantaged; and diagnosed with schizophrenia (Bowers et al., 1998; Meehan et al., 1999). Locked doors and observation can be a containment method for absconding, though these measures may not be desirable (Hunt et al., 2016; van der Merwe et al., 2009).

In response to conflict, zero tolerances stances have been taken by services. These concepts are disciplinary rather than interpersonal. Taking a "no tolerance approach" to aggression or violence, the Government of Western Australia Department of Health (2021, p. 2) created a policy which allows senior registered health professionals to refuse or withdraw the care of service users who pose a threat to staff members (Government of Western Australia Department of Health, 2022). The decision must go through a process of escalation, be last resort, only apply to people over 18 years of age and temporary (Government of Western Australia Department of Health, 2022). South Eastern Sydney Local Health District's (2022) violence prevention and management policy clearly outlines the stages of escalation that must be followed to exclude a person from care. After a process of de-escalation, education and problem solving, they can issue formal notices: (a) behaviour request notice requests the person to modify their behaviour; (b) behaviour warning notice warns of the consequences of continued violence or aggression; (c) conditional restricted visiting notice restricts the person's ability to visit the premises if behaviours standards aren't adhered to; and (d) a termination notice can be issued, terminating the right of the person to access medical care unless for emergency treatment (South Eastern Sydney Local Health District, 2022). While these services are committed to zero tolerance stances, there is currently no evaluation of their approaches. Many inpatient admissions occur under mental health legislation which, in many jurisdictions (like New Zealand), has a criterial of risk to others, and may present a contradiction in zero tolerance approaches. A comparable programme, discussed below, has been evaluated by Middleby-Clements and Grenyer (2007).

Middleby-Clements and Grenyer (2007) compared two health service training programs, the first on aggression minimisation and the second, similar, training program emphasised a zero tolerance approach to aggression. The two equivalent groups were assessed on attitude, tolerance and skills

in dealing with aggression. Middleby-Clements and Grenyer (2007) found that while both training approaches increased confidence and skills, the zero tolerance group did not increase to the same degree as the first group. Most importantly, the first training group significantly decreased rigid attitudes toward the management of aggression (Middleby-Clements & Grenyer, 2007). However, the second group had unintended consequences of increasing rigid attitudes and decreased tolerance toward aggression (Middleby-Clements & Grenyer, 2007). Whittington and Higgins (2002) propose that governmental policies advocating zero tolerance could lead practitioners to view any service user aggression as unacceptable, prompting them to employ immediate, high-intensity interventions that may not correspond to the actual level of aggression displayed. This could escalate the situation further. Implementing a zero tolerance policy towards aggression and violence could potentially have a detrimental effect on staff attitudes towards managing aggression; undermining its initial goal of reducing aggression and violence in healthcare settings (Whittington & Higgins, 2002). Containment measures, which often occur in response to conflict, will be discussed below.

1.4 Containment

Containment measures are often used by nurses to manage conflict and this can negatively impact service users, caregivers and staff (Foster et al., 2007; Kang et al., 2020). The justification for these measures is typically based on ensuring the safety of service users and others (Bowers et al., 2010). Although verbal aggression is more common than physical aggression, fear and lack of understanding of service user aggression, may lead staff to resort to physical methods of containment (Foster et al., 2007). Some containment methods are discussed below.

Locked wards are becoming more prevalent in the UK as locked hospitals are reintroduced (Bowers et al., 2010b), although these measures may yield mixed results. In 2013, the Australian Queensland government implemented a policy to lock all acute adult public mental health inpatient wards; previously, individual hospitals could lock their doors at their discretion (Gill et al., 2021). Locking wards can enhance safety by limiting access to drugs and alcohol, preventing absconding, self-harm and aggressive behaviour towards the public (Bowers et al., 2010b). However, there is limited evidence that it decreases risks for service users or others and some studies, such as those by Gill et al. (2021) and Huber et al. (2016), suggest that it may even increase risks. Around 60 years ago in the UK, service users were kept safe on open wards through observation and engagement (Bowers et al., 2010b).

Observation is used within inpatient mental health settings to prevent acutely unwell people from harming themselves or others (Stewart & Bowers, 2012). Other uses for observation include the management of aggression; absconding; suicide; and medication adherence. There are different levels and names of observation across services and countries; within the Te Whatu Ora Waikato inpatient setting levels of observations can be: (1) hourly for low-risk tangata whai ora; (2) ten-minute periods for significant-risk tangata whai ora; (3) same room and within eyesight for high-risk tangata whai ora; and (4) within eyesight and arms reach for extreme high-risk tangata whai ora (Mental Health and Addiction Services, 2017). The NHS (2014) lay emphasis on engagement as a critical part of observation. The procedure of seclusion has a separate guideline of observation, including ten-minute observation and two hourly room entries. Following an international review of literature by the New Zealand Directors of Mental Health Nursing (2015), three common themes for observation care planning emerged: (1) acknowledging the connection between observations and therapeutic engagement; (2) treating in the least restrictive environment possible; and (3) identifying the effects of observations on tangata whai ora privacy and service.

Forced medication is the most common containment method in mental health units when services are faced with a person being violent towards themselves or others (Georgieva et al., 2012). Forced medication is the administration of prescribed medication by rapid acting tranquiliser (Georgieva et al., 2012). This sedation restricts a person's movement with the intention of reducing their risk and can be used in conjunction with seclusion (Georgieva et al., 2012). Forced treatment can be used under compulsory treatment orders of the mental health act, including the administration of antipsychotic depot medication (Beaglehole et al., 2021). Grunebaum et al. (2001) reported evidence that service users who take their medications under supervision are more adherent. Staff presence can be a form of coercion, seen in Safewards patient-staff conflict checklist, which includes show of force as a containment method (James & Steward, n.d.). A show of force is "a number of staff are assembled within view of the patient, with the implicit or explicit threat that the patient will be physically restrained or forced to undergo treatment, unless they comply voluntarily" (James & Steward, n.d., p. 6).

Physical restraint of service users in mental health care is a common, though controversial practice (Hammervold et al., 2019). Standards New Zealand (2021) define restraint as service intervention that limits a service users' normal freedom of movement. Restraint types include: personal restraint when a service provider uses their body to limit the movement of a service user; physical restraint, when a service users normal freedom of movement is limited through the use of equipment,

devices or furniture, including belts, furniture design or fixed trays; environmental restraint, when the restriction of a service user's normal access to their environment, such as locking doors or removing mobility devices; and seclusion, when a service user is placed alone in a room or area from which they cannot freely exit, at any time and for any duration (Standards New Zealand, 2021). Emotional restraint can indicate instances in which service users feel limited in their ability to openly and candidly express their opinions due to concerns about potential repercussions (McSherry & Maker, 2021). Chemical restraint, using medication rather than physical restraint methods to ensure compliance and rendering a person incapable of resistance, is in breach of Standards New Zealand (2021) practice. Ethical concerns about restraint use include the negative effects and human rights issue of the service user, as well as harm to their family (Newton-Howes et al., 2020). These practices are non-therapeutic and effect therapeutic relationships, including elements of trust, between staff, service users and their families (Roper et al., 2021). Restraint harm is recognised in the United Nations Convention on the Rights of Persons with Disabilities (Newton-Howes et al., 2020).

Having outlined aspects of conflict and containment, the discussion now turns to the practices of reducing them. The discussion will initially focus on one of the most widely known approaches aimed to improve the quality of inpatient care and reducing restrictive practice. The Safewards model is pivotal to this research. Then, the discussion moves to consider the New Zealand context, before introducing the researcher and thesis structure.

1.5 Initiatives aimed at improving the quality of inpatient care and reducing restrictive practice

1.5.1 Safewards model

For the safety and wellbeing of both service users and staff, wards need to reduce rates of conflict and containment (Bowers, 2014). The Safewards Model was developed by Bowers (2014) to reduce rates of conflict and containment in acute mental health wards. The evidence underpinning the Safewards model comes from a significant literature review that occurred between 2005-2012 on conflict and containment, including all empirical English language research from 1960 onwards, totalling 1181 papers (Bowers et al., 2014). Research programmes into conflict and containment were implemented from 1996, including the large-scale City-128 study and resulted in over 100 peer-reviewed publications (Bowers et al., 2014; Bowers et al., 2008). The Safewards model was created from their findings and Bowers et al. (2014) acknowledged that, while supported, the evidence behind the model was not robust. Safewards presents patient and staff modifiers as part

of a larger model to prevent flashpoints and therefore reduce conflict and associated containment (Bowers, 2014). The Safewards model (Bowers, 2014) identifies six originating domains that influence flashpoints: (a) patient community; (b) patient characteristics; (c) regulatory framework; (d) staff team; and (c) physical environment. A package of 10 Safewards interventions is implemented on inpatient wards (Bowers et al., 2015; Safewards, n.d.-b). A fuller outline of the Safewards model is provided in chapter five.

1.5.2 Star Wards

In 2004 the United Kingdom-based Bright Charity created Star Wards, providing free resources to improve the experience and treatment outcomes of people in inpatient mental health units (Star Wards, 2017). At the core of Star Wards are 75 practical ideas for improving services, grouped into seven main themes: recreation and conversation; physical health and activity; visitors; care planning; talking therapies; ward community; and patient responsibility. Examples include therapy pets; themed events; carers pack; outdoor activities; and a library. The three stages of change for these themes are tweaking, turning or transforming, depending on the level of change required. A 2013 impact review found that member wards reported an 88% increase in activities; 77% increase in service user satisfaction; and 60% decrease in aggression.

CAMHeleon is another resource that developed from Bright Charity, aiming to inspire therapeutic care in child and adolescent mental health units (CAMHeleon, n.d.). Best practice is outlined in COLOURFUL themes: Caring relationships; Opportunity and expression; Leisure and therapeutic activity; On and off the ward; Understanding; Relational and physical safety; Family and friends; Unique recovery journeys; Learning and growth. It aims to help these teams provide positive experiences for young people in their care. Both of these initiatives are not dissimilar to the aims and interventions of Safewards and aim to position staff, service users and carers as leaders of change; believe that small changes can make a significant impact; and identify that these skills already exist within people. A key difference between Star Wards and Safewards, aside from the large Safewards randomised controlled trial (RCT), is that Star Wards focuses on the environment being more therapeutic for all, recognising therapeutic activities, compared to Safewards that focuses on the environment being safer for all, recognising flashpoints and power differences (Brennan, 2016).

1.5.3 Sleep Well Programme

Quality sleep is vital for mental and physical health however, the majority of inpatient mental health service users experience disturbed sleep (Müller et al., 2016). For mental health service users,

disturbed sleep patterns are a risk factor for suicide, predict a reduced quality of life, are associated with increased symptomology and reduces treatment benefits (Kallestad et al., 2011; Novak et al., 2020). Lack of sleep can contribute to behaviours similar to aggression, including: anxiety; anger; hostility; confusion; opposition; impaired ability to regulate emotions (Baum et al., 2014). Impaired sleep is common for services users admitted in acute mental distress and may contribute to violent and aggressive behaviours (Langsrud et al., 2016). Effective diagnosis and management of sleep disorders is essential (Kallestad et al., 2011) The award-winning National Health Service (NHS) 'Sleep Well' project created a package designed to improve the quality of sleep for inpatient mental health service users in the United Kingdom (Positive Practice, 2019).

The overarching aims of the Sleep Well project were to improve the quality of nursing care, support health outcomes and increase safety (Positive Practice, 2019). The package includes five interventions: reduction of overnight noise and light, including soft-close mechanisms, providing earplugs and eye masks and reviewing of individual levels of observation; formal staff education about sleep and sleep disorders; a protected sleep period of those deemed safe between 0000hrs and 0600hrs; screening for sleep apnoea and restless legs syndrome for all service users (Novak et al., 2020). Cognitive behavioural therapy for insomnia was available to two of the seven wards on the trial (Novak et al., 2020). The programme was evaluated by comparing adverse events before and during the implementation and through a collection of staff feedback (Novak et al., 2020). The rate of hypnotics administered throughout the intervention was also collected (Novak et al., 2020).

The findings of the Sleep Well programme were that on average 50% of service users were able to have protected sleep time after adjusting those safe enough to have reduced levels of observation overnight (Novak et al., 2020). There were fewer incidences occurring overnight, including no suicides or attempts (Novak et al., 2020). Incidences of absconding decreased during the trial (Novak et al., 2020). Self-harming events decreased, as did the need for security staff (Novak et al., 2020). Violence and aggression increased within the male high-dependency unit; researchers felt this may have been affected by the coinciding implementation of a no-smoking policy (Novak et al., 2020). Quantity of hypnotic use fell by 25%, including zopiclone, promethazine hydrochloride and melatonin (Novak et al., 2020). Staff feedback was positive and many felt the ward environment was more "peaceful and settled" (Novak et al., 2020, p. 4). Staff felt that creating a consistent bedtime routine was supporting sleep quality (Novak et al., 2020). There was initial staff anxiety around reducing observations overnight for some service users and there were disagreements around associated risk assessments (Novak et al., 2020). Service users preferred not

being interrupted by observations overnight and some felt safer when people were not looking into their rooms overnight (Novak et al., 2020).

1.5.4 The Productive Ward: Releasing Time to Care

Designed by the NHS in 2005, the Releasing Time to Care (RTC) programme focuses on redesigning and streamlining how nurses work to free up time for service users and delivery quality and safe care (White et al., 2014). RTC aims to: increase direct nurse-service user care time; improve experience for staff and service users; and modify ward environments to improve efficiency. The Productive Mental Health Ward are modules adapted specifically for this setting (NHS, n.d.). Foundation modules are: knowing how we are doing; well-organised ward; and patient status at a glance. Going further covers: patient wellbeing; therapeutic interventions; ward round; safe and supportive observations; admissions and planned discharge; shift handovers; meals; and medicines. An example of an improvement activity provided by RTC is a dignity walk for improving privacy and dignity on the ward and demonstrating respect to service users (NHS, 2020). This evaluation includes: consent, gaining permission before entering bedrooms; curtains, appropriate for protecting privacy and dignity; and providing clear signage, including toilets. Having shown positive effects on the productivity and efficiency of nursing care, the programme is now used internationally, including in New Zealand and is applied in this study setting (White et al., 2014).

1.5.5 Dynamic violence risk assessment

Physical and verbal aggression are common incidences within acute mental health services and remain a significant challenge to nurses who, as a frontline workforce, can be required to de-escalate potentially aggressive situations (Santangelo et al., 2018; Stubbs & Dickens, 2008). Studies have shown an association between mental illness and violence, consequently preventing, assessing, treating and managing the risk of violence for service users is an important part of all mental health services (Mullen, 2000). Prevention of aggression relies on effective identification of service users at risk of these behaviours and subsequent implementation of de-escalation interventions to prevent risk factors from increasing (Mullen, 2000). Although reducing and managing risk is imperative, risk assessment is still subject to criticism. The nursing requirement to focus on risk assessment and management can result in restrictive practices to protect the safety of the service user and others (Muir-Cochrane & Duxbury, 2017). Restrictive practices are harmful to service users and are against recovery-focused and trauma-informed care which is why recognition and prevention of aggression and violence are crucial (Jackson et al., 2014; Muir-Cochrane & Duxbury, 2017).

Risk factors of violence can be separated into two types which are relative to time frames (Douglas & Skeem, 2005). Static violence risk factors are historical events that cannot be changed over time, such as violence history, and dynamic risk factors can change, including acute symptoms (Douglas & Skeem, 2005). It is argued that static risk factors may be more appropriate within long-term care settings and dynamic risk factors may be more important to capture in short-term care settings (Chu et al., 2013). A current trend towards a dynamic hybrid model of the two integrates both aspects (Raveendran et al., 2022). Structured violence risk assessments have repeatedly been shown to be more accurate, reliable and transparent than unstructured assessments (Fazel et al., 2012; Ogloff & Daffern, 2006). Predictive instruments used for measuring risk of aggression within an inpatient setting include: Brøset Violence Checklist (Almvik et al., 2000); Violence Screening Checklist (McNiel & Binder, 1994); Dynamic Appraisal of Situational Aggression (DASA) (Ogloff & Daffern, 2007); Clinical scale of the Historical, Clinical and Risk Management – 20 Factors (Douglas et al., 2014). These dynamic risk assessments have shown short-term effectiveness in predicting inpatient aggression (Chu et al., 2013).

Dynamic Appraisal of Situational Aggression (DASA) is used within the setting of this study. Following their Australian study, Ogloff and Daffern (2006) created an assessment tool consisting of seven test items that were the most effective in identifying acute inpatient mental health service users that were at risk of committing violent behaviours within 24-hours: (a) negative attitudes; (b) impulsivity; (c) irritability; (d) verbal threats; (e) sensitive to perceived provocation; (f) easily angered when requests are denied; (g) unwillingness to follow directions. Four of these items are from the Brøset Violence Checklist or the Clinical scale of the Historical, Clinical and Risk Management and the rest from their previous studies. The DASA tool is completed daily based on observations or information handed over and takes less than five minutes. Though primarily used in forensic mental health services, its use in other mental health inpatient services is increasing (Griffith et al., 2013).

1.5.6 Six Core Strategies

New Zealand mandated the reduction of seclusion and restrictive practice within mental health services (Standards New Zealand, 2021). Seclusion reduction is a priority initiative due to the negative impact it has on service users and staff (Te Pou, 2018). New Zealand's overall goal is to not only reduce but eliminate the use of seclusion and restraint (Ministry of Health, 2012). The Six Core Strategies were developed in the United States by the National Association of State Mental Health Program Directors Medical Directors Council (NASMHPD) (2006) and present evidence-based approaches that effectively reduce incidences of seclusion and restraint. The Six Core

Strategies are (a) leadership towards organisational change, which emphasises the important role leaders and managers have in promoting least restrictive practice initiatives; (b) full inclusion of lived experience, to ensure participation and partnership of people with lived experience in service design, delivery and quality improvement; (c) using data to inform practice, this promotes evidence-informed practice to improve outcomes; (d) workforce development, the necessity for all staff to have the skills, knowledge, values and attitudes to respond effectively to distress; (e) use of seclusion and restraint reduction tools, outlines utilising therapeutic relationships and least restrictive interventions, including sensory modulation and cultural healing to support people; (f) debriefing techniques, making positive changes through reflection and analysis of restrictive events for future learning and prevention (Te Pou, 2020b). The strategies are used in the United Kingdom, Canada, Australia and Finland and were adapted to the New Zealand context initially in 2013 and then refreshed in 2020. Not dissimilar to Safewards, guidelines for planning, implementation and evaluation of the Six Core Strategies within services are provided online by Te Pou (2020b), including checklists and online resources. Studies have found that implementing the Six Core Strategies effectively reduces restraint and seclusion rates and generates positive changes for staff and services (Putkonen et al., 2013; Wolfaardt, 2013).

Sensory modulation

Sensory modulation is an evidenced-based tool that sits within the Six Core Strategies (Te Pou, 2023b). It is a trauma-informed tool that supports least restrictive practices and Te Pou (2023b) identify sensory modulation as a key strategy for seclusion reduction. Te Pou (2023b) describe how this practice is becoming embedded into mental health services within New Zealand to reduce restraint and seclusion. Sensory modulation works by using environment, equipment and activities to regulate emotions and behaviour through sensory experiences to either calm or alert the senses (Te Pou, 2023c). Sensory modulation practices include: (a) touch, such as massage and weighted blankets; (b) sight, including soft lighting and nature images; (c) hearing, such as nature sounds and music; (d) smell, using scented candles or diffusers; (e) taste, for example food and drink; and (f) movement, including walking outside or knitting (Te Pou, 2023c). Internationally, literature is endorsing that sensory modulation is integrated into mental health care to eliminate restrictive practices (Wright et al., 2020).

Lived experience

Service users supporting one another has a long history in mental health, such as Alcoholics Anonymous which began in 1935 (Alcoholics Anonymous, 2023; Basset et al., 2010). People who have experienced mental health and addiction services develop many "skills, knowledge, talents and attributes" from their journey (Te Pou, 2020a, p. 4). As "experts by experience", people with

lived experience are increasingly seen in peer support roles in mental health services (Basset et al., 2010, p. 8). They are trained and employed in specific lived experience roles to support, inform and lead (Te Pou, 2020a). Peer support workers have been shown to: effectively engage with service users and quickly build trusting relationships; create a recovery climate through a family feel environment and tasty meals; support recovery with their skills and attitude, knowing when to engage and finding triggers; and work well within a peer support team by communicating well and prioritising service users recovery (Knowledge Institute, 2009). This workforce has roles in (a) peer support and advocacy roles and (b) service roles that build policies and systems (Te Pou, 2020a). Growing this workforce is a Ministry of Health priority and Te Pou (2020a) has a vision for a "large, well-resourced, diverse and self-determined consumer, peer support and lived experience workforce" (p. 4) across healthcare and other areas. The National Mental Health Commission of Australia have also prioritised the growth and development of a peer support workforce (Byrne et al., 2021).

De-escalation

To manage violence and aggression in mental health, staff apply de-escalation techniques (Price et al., 2015). These non-physical techniques usually include verbal and non-verbal communication and negotiation to stop the escalation of verbal or physical aggression (Price et al., 2015). De-escalation is encompassed within Te Pou's (2020b) strategy five of the Six Core Strategies: using seclusion and restraint reduction tools. Objectives for de-escalation include that staff are prepared for every crisis situation, having access to safety planning and/or de-escalation information (Te Pou, 2020b). De-escalation plans should be individualised, person-centred and involve whānau (Te Pou, 2020b). Identification of triggers and self-management strategies should be included in advanced directives and sensory modulation approaches (Te Pou, 2020b). De-escalation plans should be created with people and their whānau to identify and document strategies that have worked well previously (Te Pou, 2020b). Response to crisis situations should be culturally informed and whānau -centred care (Te Pou, 2020b). Staffing should consider gender or cultural needs, trauma history and staff experience or expertise (Te Pou, 2020b). De-escalation is reflected in several initiatives discussed in this paper, including Safewards, DASA, Safe Practice Effective Communication (SPEC) and Zero Seclusion.

1.5.7 Zero seclusion

Aligning with the Six Core Strategies, the Health Quality & Safety Commission New Zealand (2022) present a change package of evidence-based interventions to work towards New Zealand's goal of being seclusion free by 31 July 2023. The change package aims to enhance healthcare by

focusing on primary drivers such as effective leadership, data utilisation for improvement and equity, workforce development, equitable and person-centred care, proactive interventions and a quality-designed system. Secondary drivers support these goals through shared decision-making, fostering a quality culture, sustainability planning, use of local and cultural data, process measures, and standardisation. They also emphasise cultural competency, peer support, kindness, compassion and effective pathways.

Interventions include a co-leadership governance model, equity plans and training to address unconscious bias and institutional racism. Regular meetings, ethnicity data analysis, after-hours cultural and peer support, individualised care plans and therapeutic welcoming processes are integral. The interventions also involve reducing restrictions, increasing access to activities, incorporating Māori concepts and sensory modulation. Key clinical interventions focus on safe transitions, involving whaanau, effective medication and nicotine replacement therapy, after-hours leadership, safety huddles and debriefing. Cultural kete interventions offer early intervention support, Māori cultural assessments, cultural supervision, whaanau engagement, after-hours Māori services, peer support, rongoā Māori and the involvement of Mātauranga Māori practitioners and practice values, supported by the "Aunties". The Aunties exemplify a non-coercive, values-based approach rooted in the traditional role of older Māori women in whānau and cultural events (Te Tāhū Hauora Health Quality & Safety Commission, 2024). Their wisdom, patience and compassion are key to effective seclusion de-escalation (Te Tāhū Hauora Health Quality & Safety Commission, 2024).

1.5.8 Safe Practice Effective Communication

Safe Practice Effective Communication (SPEC) is a training course provided in Te Whatu Ora organisations, run by SPEC trainers and overseen by a National SPEC Collaborative Governance Board (Te Pou, n.d.-d). It is an evidence-based tool initially developed by Te Whatu Ora Health New Zealand Counties Manukau and identified by Te Pou (n.d.-c) to support inpatient services and reduce restraint and seclusion practices. SPEC training is attended by inpatient mental health staff, including registered nurses; mental health assistants; and some members of the multi-disciplinary team. Taught over a four day period, it covers de-escalation; therapeutic engagement; working collaboratively; trauma informed care; cultural engagement; breakaway techniques; and safe application of personal restraint as a last resort (Brebner, 2022; Te Pou, n.d.-d). Content is focused on prevention, early intervention and effective communication (Te Pou, n.d.-d). There are many strengths to having a nationwide and consistent training, but there are areas of SPEC content

that could be developed further: improving outcomes for Māori; physical health risks of personal restraint; using an evidence-based tool for identifying escalating behaviours and associated interventions; and learning from restraint events for trigger identification and future preventatives (Brebner, 2022).

1.5.9 The Empathy Initiative

Empathy is a valued skill in healthcare and is the ability to understand the service user experience, a metaphorical walk in their shoes (Moudatsou et al., 2020). Healthcare professionals with comprehensive empathy skills practice more efficiently and empathy promotes better health outcomes for service users (Moudatsou et al., 2020). The Empathy Initiative (n.d.) was created by Australian academics and practitioners to improve quality of life and care through enhancing empathy. Their projects include simulations of care for people experiencing disabilities, hearing voices and diverse cultural backgrounds (The Empathy Initiative, n.d.). To support healthcare students and workers, the Empathy Initiative (n.d.) have projects on mindfulness for students and managing compassion fatigue in intensive care units. The Virtual Empathy Museum (2018) is an evidence-based resources from the Empathy Initiative designed to further enhance the empathy skills of healthcare students and clinicians. Within this online digital resource, the museum is made up of seven rooms as described in Table 1 (Virtual Empathy Museum, 2018).

Table 1: *Virtual Empathy Museum rooms*

Room	Purpose
Meditation	Introduce mindfulness and meditation as strategies to promote empathy, self-awareness and reduce compassion fatigue.
Art	The study of artworks to enhance the ability to read and interpret facial expressions and body language.
Reading	Literature reviews to understand deeper layers of a story's meaning and promote emotional engagement.
Film	Film reviews to increase empathic intelligence and appreciation of lived experience through human stories.
Resource	Links to web resources on empathy and vulnerable service user groups.
Digital story telling	Digital stories to promote empathy and examination of attitudes towards people from diverse backgrounds.
Simulation room	Simulations to support standing in others shoes and seeing the world their eyes to develop empathy.

Adapted from Virtual Empathy Museum (2018).

1.5.10 Therapeutic engagement

Human connection and therapeutic relationships are effective interventions that can protect people in crisis (Lees et al., 2014; Te Pou, 2017). Recent approaches to human connection reflect the early work of Peplau (1991), a pioneer nurse theorist who initially formulated the purpose of the connection between a nurse and a service user. Therapeutic engagement between nurses and service users is a crucial element of caring for individuals in acute mental health facilities (Sweeney et al., 2014). Adept communication, verbal interaction and interpersonal dynamics are employed in the specialised field of mental health nursing to facilitate positive health improvements (McAllister et al., 2019). Not only does therapeutic engagement create better health outcomes (Farrelly et al., 2014) and higher satisfaction of care for the service user (Wykes et al., 2018), it also improves the job satisfaction of nurses (Moreno Poyato et al., 2018). The main goal of a therapeutic relationship is to foster communication to understand the service users' needs and empower their learning to address their problems (Reynolds & Scott, 1999). Therefore, empathy is highlighted as a crucial nursing competency for establishing such relationships, supported by theorists such as Peplau (1991), as well as by clinical nurses and service users of mental health units (Moreno-Poyato & Rodríguez-Nogueira, 2021).

1.5.11 Open-door policy

Inpatient mental health units with locked doors are often used to manage risks, including absconding and suicide (Huber et al., 2016). This restrictive practice can negatively affect the therapeutic environment and may increase motivation for absconding (Huber et al., 2016). The open-door policy is an inpatient mental health service model where the ward door remains unlocked (Kunøe et al., 2022). Kunøe et al. (2022) describe how an open-door policy could reduce coercion and increase collaboration within inpatient mental health wards in the following ways: (a) to keep service users on the ward, staff depend on their skills in engagement, collaboration and therapeutic activities; (b) reinforces the service as a place of treatment, protecting people's rights and collaboration, while reducing the stigma of confinement; (c) violence and coercion in response to crowding or disputes may be reduced through the ability for people to leave the ward; (d) an open door supports contact with and reintegration to, the community. In a study by Huber et al. (2016) over 15 years and 21 inpatient mental health hospitals in Germany, they concluded that locking doors may not prevent suicide and absconding, finding that rates of suicide, suicide attempts, absconding with return and absconding without return did not increase in hospitals with an open-door policy. These results challenge many modern inpatient ward practices, where wards an increasingly being kept locked (Missouridou, 2022). This focus of this discussion will now move to the New Zealand context.

1.6 Aotearoa New Zealand context

Services implementing international initiatives in New Zealand need to take into account the local social and cultural context. The following section discusses important aspects of the New Zealand healthcare system, including obligations under Te Tiriti o Waitangi, Māori health inequities, Māori models of health, the role of Te Pou, the New Zealand mental health act and Te Whatu Ora Waikato.

1.6.1 Te Tiriti o Waitangi

Around 800 years ago, Māori sailed to Aotearoa from a Pacific nation and settled into tribes to become the indigenous people of the land (Ruru & Kohu-Morris, 2020). Europeans first sighted Aotearoa in 1642 and their settlers arrived increasingly from the late 1700s (Ruru & Kohu-Morris, 2020). Due to the increasing European settlers, some of the tribal nations signed He Whakaputanga o te Rangatiratanga o Nu Tireni, Declaration of Independence of New Zealand in 1835 (Waitangi Tribunal, 2014). Five years later, on February 6th 1840, Te Tiriti o Waitangi (Te Tiriti), the Treaty of Waitangi, was signed by some tribal leaders (Waitangi Tribunal, 2014). This was the beginning of formal colonisation. Signatures began at Waitangi and were added over the

following six months (Ruru & Kohu-Morris, 2020). This gave the England some formal governance, particularly to support Māori in protecting their international borders and law enforcement of the increasing European settlers (Ruru & Kohu-Morris, 2020). Te Tiriti was bilingual, with the te reo Māori version receiving the most signatures (Orange, 2015; Ruru & Kohu-Morris, 2020). Significant differences in the translation are summarised in Table 2 and in 1840 the British assumed full sovereignty of New Zealand (Orange, 2015; Waitangi Tribunal, 2014). Protests followed, leading to a decade-long civil war in the 1860s, the New Zealand land wars (Ruru & Kohu-Morris, 2020). Colonisation has brought about significant adverse effects on the health, welfare and even the survival of Māori in Aotearoa (Moewaka Barnes & McCreanor, 2019).

Table 2: *Te Tiriti translational differences*

Māori language version	**English language version**
Māori retain *tino rangatiratanga*, (sovereignty) over the lands and their treasures	Māori cede sovereignty to the British Crown
Māori give *kawanatanga (*governance) rights to the British Crown	Māori retain full exclusive and undisturbed possession of their lands, estates, forests, fisheries and other properties

1.6.2 Health inequities for Māori

New Zealand's health and disability system is dedicated to meeting the obligations of Te Tiriti o Waitangi, which aims to ensure that all citizens can lead long, healthy and independent lives (Ministry of Health, 2020). However, there are a significant and persisting difference in the physical and mental health outcomes of Māori compared to non-Māori (Sullivan et al., 2023). In contrast to those who are not of Māori descent, Māori tend to have a shorter life expectancy. Māori men typically live to around 73.4 years (compared to 80.9 for non-Māori men) and Māori women to about 77.1 years (versus 84.4 for non-Māori women) (Stats NZ – Tatauranga Aotearoa, 2021). Additionally, Ministry of Health (2018) report: the mortality rate due to cardiovascular disease is twice as high among Māori compared to non-Māori; Māori experience a nearly twofold higher prevalence of diabetes; younger Māori (5–34 years) are almost twice as likely to be hospitalised for asthma; and Māori aged 25 and above have notably higher rates of cancer registration, with cancer-related mortality being over 1.5 times higher for Māori individuals. In terms of mental health, Māori experience higher rates of mental illness, suicide and addiction (Patterson et al., 2018). Mental distress among Māori is almost 50% more prevalent than among non-Māori and Māori are 30% more likely to have their mental health issues go undiagnosed (Patterson et al., 2018). When accessing mental health services, Māori tend to have poorer outcomes than non-Māori, specifically,

in secondary care Māori are more prone to hospital admissions, readmissions post-discharge, seclusion during hospitalisation and compulsory treatment under mental health legislation, including in forensic services (Patterson et al., 2018).

The significant disparities in health outcomes are strong indicators of the healthcare system's inability to provide fair and equal health services to the Māori community (Sullivan et al., 2023).There are several initiatives that have been put in place to improve the health of Māori people. These include the establishment of Māori health-care providers, cultural competence training for healthcare professionals, community-led programmes, a focus on health literacy and the Whānau Ora initiative (Hobbs et al., 2019). Hobbs et al. (2019) acknowledges that, beyond these interventions, there is a need for New Zealand to address the historical, cultural and systemic issues that contribute to inequalities for Māori. Colonisation and systemic racism have embedded inequality in New Zealand through generations (Reid et al., 2017; Scott, 2014). The Ministry of Health (2020) acknowledges that addressing the health needs and promoting equity for Māori is crucial in fulfilling Te Tiriti o Waitangi obligations.

1.6.3 Māori models of health

Māori health models offer valuable frameworks for understanding Māori health at both systemic and individual levels and are useful for teaching health professionals from diverse disciplines (Scott, 2014). Māori health models, including Te Wheke, Te Pae Mahutonga and the Powhiri process (PP), have been applied within Māori service providers since the 1980s to address health inequalities for Māori (Pitama et al., 2014). Drawing on Te Ao Māori, three models are expanded upon below.

Te Whare Tapa Wha

Te Whare Tapa Wha was developed in 1984 for understanding Māori health. Since then, it has been embedded into Māori health policy (Pitama et al., 2007). This Māori health framework outlines a wharenui (meeting house) with strong foundations and equal sides that symbolise the four dimensions of Māori wellbeing: taha tinana (physical health); taha wairua (spiritual health); taha whānau (family health); and taha hinengaro (mental health) (Ministry of Health, 2017). Many Māori believe that modern approaches to healthcare do not fully acknowledge the importance of taha wairua. If any of the four dimensions are damaged or unbalanced, it can lead to unwellness (Ministry of Health, 2017).

Meihana model

Building on the foundation of Te Whare Tapa Wha, the Meihana model was developed in 2007 and forms an assessment framework that can be applied by Māori and non-Māori practitioners (Pitama et al., 2014; Pitama et al., 2007). In addition to the four dimensions of Māori wellbeing in Te Whare Tapa Wha, the Meihana model adds two additional elements: taio (physical service environment) and iwi-katoa (social structures) (Pitama et al., 2007). An analogy of a waka hourua (double-hulled canoe) is used to visually communicate this framework (Pitama et al., 2014; Scott, 2014). The Meihana models aims to prompt health practitioners to expand their assessment methods to deliver high-quality healthcare and minimise inequalities between Māori and non-Māori (Pitama et al., 2014).

Hui process

The Hui Process provides guidelines for improving the relationship between doctors and Māori service users (Lacey et al., 2011; Pitama et al., 2014). It was developed in 2011 and involves several simple steps: the initial greeting engagement (mihimihi); establishing a connection (whakawhanaungatanga); addressing the main purpose of the meeting (kaupapa); and closing the session (poroporaki/whakamutunga) (Pitama et al., 2014). This framework aims to increase cultural competence, improve service user engagement in services and improve health outcomes (Lacey et al., 2011). Learning the hui process is easy, it is highly appreciated by service users and can improve relationships (Lacey et al., 2011).

1.6.4 Te Pou

As a significant reference in this paper, Te Pou (n.d.-a) is a workforce development centre in New Zealand who aim to improve the lives of people with mental health, addiction and disabilities. Te Pou aims to achieve this through connecting tangata whai ora, their whānau and the people working with them to the knowledge, resources and training they need (Te Pou, n.d.-a). Te Pou (n.d.-a) base their work on data and evidence to "inform and reform" the workforce and are underpinned by Te Tiriti o Waitangi. As a not-for-profit, Te Pou (n.d.-a) are primarily funded by the Ministry of Health contracts. (Te Pou, n.d.-a). Te Pou has a breadth of initiatives that have been created to meet the needs, priorities and challenges of the workforce, these currently include seclusion and restraint reduction, supporting training and improving the physical health of service users (Te Pou, n.d.-b). Te Pou is part of the Wise Group, a charitable trust who collectively is one of the largest providers of mental health and wellbeing services in New Zealand (Wisegroup, 2023). The Wise Group (2023) is made up of 13 charitable companies, who in addition to Te Pou, include:

The People's Project to solve homelessness; Workwise, supporting people to find and keep employment; and Le Va, New Zealand's first Pasifika suicide prevention programme.

1.6.5 New Zealand Mental Health Act

The study setting operates within the legal framework of the Mental Health (Compulsory Assessment and Treatment) Act (Ministry of Health, 1992). Now over 30 years old, the purpose of the mental health act (MHA) is to outline the requirements for the compulsory assessment and treatment for people experiencing a mental illness and is monitored by the Ministry of Health's Office of the Director of Mental Health and Addiction Services (Ministry of Health, 2023a). The MHA outlines the entitlements of patients and prospective patients to safeguard their rights, aiming to protect these rights and overall reform and consolidate the legal framework concerning the evaluation and care of individuals experiencing mental disorders (Ministry of Health, 2021a). Within the changes introduced in 1992, the MHA narrowed the definition of mental disorder, with a phenomenological two branch definition (Gordon & O'Brien, 2014). The Ministry of Health (1992) defines mental disorder as "in relation to any person, means an abnormal state of mind (whether of a continuous or an intermittent nature), characterised by delusions, or by disorders of mood or perception or volition or cognition, of such a degree that it- (a) poses a serious danger to the health or safety of that person or of others; or (b) seriously diminishes the capacity of that person to take care of himself or herself;—and mentally disordered, in relation to any such person, has a corresponding meaning" (p. 10). Using this definition, the MHA moved away from the previously termed *need* for treatment, towards care based on the this dual criteria of mental disorder and risk (Gordon & O'Brien, 2014). A significant change with the MHA was the introduction of community treatment, claimed as justified to facilitate the process of deinstitutionalisation and to reduce the rate of involuntary hospitalisation (Gordon & O'Brien, 2014). The MHA provides legal support for many of the practices considered to contribute to conflict and containment. Beyond the legal context of this research, it is important to understand the researcher.

1.7 The researcher

I have undertaken previous study as part of BN(Hons) within the unit, exploring inpatient therapeutic engagement during constant observation on the two neighbouring inpatient adult mental health units. This prior mixed-methods research underscored my expertise in the subject matter, establishing a foundation upon which the current study was built. This gave me prior knowledge about ethics, consents and collecting quantitative and qualitative data. I worked alongside a consumer advisor who performed interviews with tangata whai ora which showed me the importance of including lived experience in research processes. I also drew experience from

the past role I held as an associate charge nurse in the study setting, a role that contributed a leadership dimension to the study. I had to leave this full-time position to take on the responsibilities that this full-time research demanded. This leadership experience proved invaluable in navigating the complexities inherent in healthcare settings, including ward dynamics, staff attitudes, change management and networking. Drawing from both my research expertise and managerial background, this study represents the convergence of my professional experience, resulting in an examination of the Safewards model. Not extensively implemented in New Zealand yet, the Safewards model may improve the quality of inpatient mental health care and reduce restrictive practice. While it is an additional change within an existing change climate for the study setting, the philosophy and practices of the Safewards interventions align with existing service delivery aspirations.

Establishing the researcher's cultural position is critical to this research and in the context of Aotearoa. Although not typically included in methodology, my cultural standpoint holds substantial importance, as it inevitably shapes this research, regardless of my awareness of its impact. Moving through a narrative adaptation of a traditional introduction, I will begin by identifying who I am and where I am from. I am a New Zealand European woman who grew up beneath Te Mata mountain. Nearby flows the Tukituki river. These landmarks identify that the place where I am from is Heretaunga, Hastings. This is the geographical area of the tribe Ngāti Kahungunu, who arrived by the waka Takitimu. Taylor is my maiden family name, with Sandy being my father and Helen my mother. My parents' ancestry is mostly English and they were both born and raised in Wairoa, which is also the land of Ngāti Kahungunu. I attended primary school in Havelock North and secondary school in Hastings. Because of the demographics in these two areas, my exposure to Māori culture increased the older I became. This culminated in my move to Kirikiriroa, Hamilton, where, due to the demographics of the Waikato region, working in a forensic and then acute mental health unit, meant that I worked alongside many Māori tangata whai ora and Māori staff. Te reo Māori, and Māori culture, have been a part of my day-to-day practice for the past seven years. In the Waikato region the overrepresentation of Māori in mental health services necessitates a commitment to delivering culturally safe care. This research incorporates PAR principles, highlighting reflexivity as a strategy to address bias by actively engaging participants, with a particular focus on Māori, at every phase of the research. Participant characteristics can be found in the results chapter (Table 7).

1.8 Thesis structure

This thesis comprises six cohesive chapters, each contributing distinct elements to the overarching research aims. The introduction has set the scene, explaining the context and providing a foundation of information that this thesis will build upon. The literature review presented in chapter two, evaluates academic literature and explains the search process and key terms. Chapter three discusses the methodology and includes research philosophy, design, strategy, theory, co-design principles and the researcher's role. The methods within chapter four details the project's theoretical principles, application and mixed-method data collection. The research findings in chapter five presents the empirical data and analysis from the research process. Chapter six, the final chapter, discusses the main findings in relation to existing literature, answers research questions and concludes with implications, limitations and suggestions for future research.

Chapter 2: Literature review

Education is not the filling of a pail, but the lighting of a fire

William Butler Yeats, 1865-1939

This literature review summarises the literature on Safewards through an integrative approach. The literature review will be presented according to the stages of the hourglass structure (Jirge, 2017; Toronto & Remington, 2020). It will broadly outline the phenomenon of interest through an introduction and background and then narrow the focus to the purpose of the literature review (Jirge, 2017). The searching for, and synthesis of, the literature is the narrowest part of this process due to its specific and refined nature (Jirge, 2017). The literature review will then broaden out in the discussion and comparison of the findings of the literature (Jirge, 2017). The integrative review concludes with research questions to be answered in this study (Jirge, 2017). In addition to this integrative review, a published systematic literature review is presented in chapter five (Knauf et al., 2023).

The purpose of this integrative review is to present a comprehensive review of available literature on the Safewards model. This integrative review aims to answer the following questions:

1) What literature is available on the Safewards model?
2) Is the Safewards model effective in reducing rates of conflict and containment?
3) What are the barriers to implementing the Safewards interventions?
4) What are the perspectives of staff and service users on the Safewards interventions?
5) What are the recommendations for future implementation of the Safewards model?

This literature review will first discuss the methods of this literature review by: defining the integrative approach; outlining the literature search strategy and synthesis; specifying the inclusion and exclusion criteria; quality appraisal; and presenting the study selection. Secondly, the findings will be presented through the themes of: primary outcomes, secondary outcomes, participant perspectives and future practice before ending with a discussion of published literature and critical reviews. Finally, the findings are discussed and the literature review ends with the gap in the literature.

2.1 Method

2.1.1 Integrative review

Integrative reviews research and analyse a variety of sources and support a more holistic understanding of the phenomenon of interest. They are a common choice within nursing research (Toronto & Remington, 2020). The systematic process that integrative reviews follow, allow for current evidence, evidence quality, gaps in the literature and future research and practice to be identified (Toronto & Remington, 2020). This literature review will follow Toronto and Remington's six steps of undertaking an integrative review which are as follows.

1. Formulate purpose and/or review questions, identifying the issue of a gap in literature.
2. Systematically search and select literature, using a comprehensive search to minimise bias.
3. Quality appraisal, to assess validity and lessen bias.
4. Analysis and synthesis, extraction and integration of a large amount of data.
5. Discussion and conclusion, describing what the findings of the review mean.
6. Dissemination of findings, communicating findings with the research community

Because evidence is of variable quality, the hierarchy of evidence ranks primary studies according to the methods risk of bias and weight in terms of intervention and decision making (Greenhalgh, 1997; Murad et al., 2016). Several pyramid visualisations of the hierarchy of evidence have been described since the first by Guyatt et al. (1995). Studies with weaker design, basic science and case series, are depicted at the base of the pyramid, then case-control and cohort studies above, followed by randomised controlled trials (RCT) and at the apex is systematic reviews and meta-analysis (Murad et al., 2016). Integrative reviews and systematic reviews are similar in the way they employ a systematic process to "identify, analyze, appraise and synthesize" studies (Toronto & Remington, 2020, p. 2). The key difference, and the rationale for its use in this study, is that integrative reviews entail a broader review of the phenomenon of interest, gathering more diverse studies for analysis (Toronto & Remington, 2020). Integrative reviews synthesise research that is experimental and non-experimental, including empirical, topics reviewed with qualitative or quantitative studies; methodological, design and methodologies analysed and reviewed; and theoretical, reviewing topic theories (Soares et al., 2014; Whittemore et al., 2014). In comparison, systematic reviews only explore experimental research (Toronto & Remington, 2020). Integrative reviews allow, for example, the inclusion of Whitmore's (2017) discussion paper and Kennedy et al.'s (2019) critical review which are not research but do contribute to an understanding of Safewards.

2.1.2 Literature search and synthesis

A search of the databases CINAHL complete, MEDLINE, APA PsycINFO, PubMed, Google Scholar, WorldCat, World of Science, nzresearch.org.nz, Trove, Cochrane library and ProQuest was undertaken, July 2021-Februrary 2022, to find all available literature relating to the phenomenon of interest, the Safewards model, published from 2015. Academic liaison librarian advice was sought. Manual searches were also undertaken, including exploring literature from reference lists of relevant studies. An intitle 'safewards' alert was set up with Google Scholar for discovering new publications. Initial keywords for the database searches were safewards OR safewards model. The PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) model phases were used to structure this integrative review (Moher et al., 2009).

2.1.3 Inclusion and exclusion criteria

As there is relatively limited literature published on the Safewards model, exclusion criteria were kept to a minimum. Any publications that implemented the Safewards model, as well as literature reviews, were included if available within the search period. The setting under investigation in this review is acute adult inpatient mental health settings, however literature from community, forensic, adolescent, intellectual disability or other mental health care settings were not excluded. The population of this study is mental health tangata whai ora, registered nurses and unregistered nurses (enrolled nurses and mental health assistants). There was limited literature that included the voice of the tangata whai ora and the Safewards model so it was important that this literature was captured within our inclusion criteria. Literature on Safewards began to be published from 2013, so all other literature was published after this date. There were no geographical exclusions. There are currently no New Zealand publications on Safewards, aside from a newspaper article reporting an initiative from Southern DHB and two masters theses (Cooke, 2018; Dawson, 2020). The Trove database provided publications from Australian studies, a setting that is comparable to the New Zealand context. Literature that was published before 2015 and not available in full text or an English translation was excluded from this search.

2.1.4 Study selection

The Ph.D. candidate was the primary reviewer of the literature. First, the researcher searched all of the listed databases with the keywords safewards OR safewards model. All results (n=475) were imported into an EndNote library. Duplicates (n=65) were removed by title, author and year. The reviewer then investigated each piece of literature based on title and abstract and removed any literature that did not meet the inclusion criteria. This excluded 267 publications. Full-text downloading and screening were completed. 124 references that did not relate to Safewards or

were not the original primary studies, were excluded. 21 references were the outcome of this literature review and were each subjected to integrative review against the PRISMA checklist (Moher et al., 2009) on separate Microsoft Excel worksheets. Of the final 21 publications, three used qualitative research, 10 used quantitative research (including one RCT) and eight used mixed-methods research. Geographically, the research was set in the following places: Germany (n=2); United Kingdom (n=5); New Zealand (n=1); Australia (n=7); Canada (n=1); Ireland (n=1); Finland (n=2); Poland (n=1); Denmark (n=1). Hospital-types were: adult (n=12); forensic (n=2); intellectual disability (n=1); adolescent (n=1); adult and adolescent (n=1); adult, aged care and adolescent (n=1). The PRISMA checklist, search strategy and summary of included papers are provided in chapter five.

Since its first description in 2014 (Bowers) the Safewards model has gained momentum internationally (Figure 2). In 2020 seven studies were completed, the highest of any year to date. The aims of the studies were mixed, with most aiming to evaluate Safewards outcomes (n=11) (Baumgardt et al., 2019; Bowers et al., 2015; Dawson, 2020; Dickens et al., 2020; Fletcher et al., 2017; Hottinen et al., 2020; Lickiewicz et al., 2021; Maguire et al., 2018; Palviainen et al., 2020; Price et al., 2016; Stensgaard et al., 2018). The second most common aim was to evaluate the implementation of Safewards intervention (n=7) (Baumgardt et al., 2020; Cabral & Carthy, 2017; Davies et al., 2020; Fletcher et al., 2020; James et al., 2017; Kipping et al., 2019; Maguire et al., 2018). Exploring staff experiences (n=4) (Dawson, 2020; Fletcher, Hamilton, et al., 2019; Higgins et al., 2018; Lee et al., 2021) and consumer experiences (n=1) (Fletcher, Buchanan-Hagen, et al., 2019) were the least common aims of the studies.

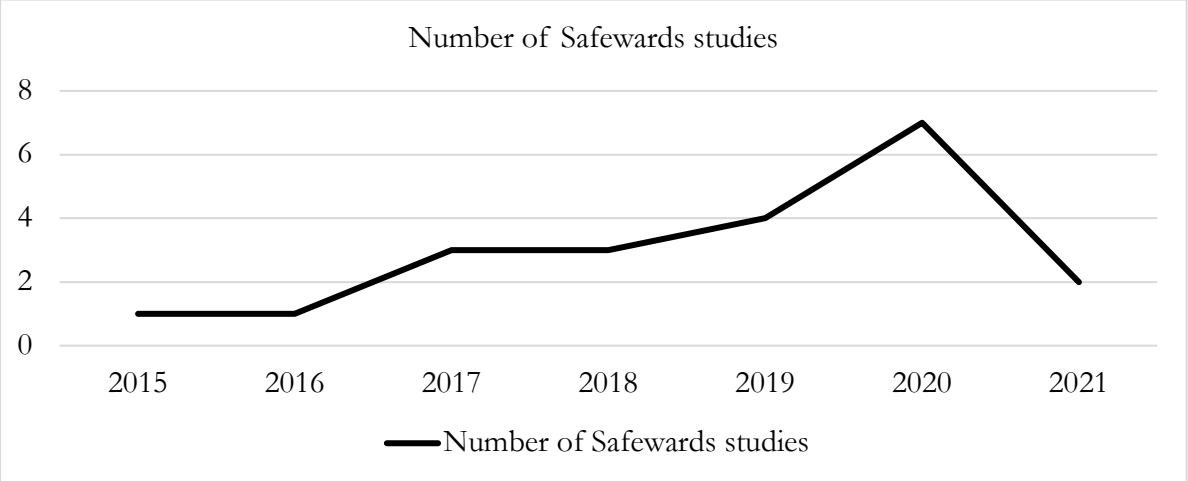

Figure 2: *Number of Safewards studies undertaken by year*

2.1.5 Study quality appraisal

The final 21 references (see Study One: Table 3) were assessed using the Joanna Briggs Institute (JBI) (2020) critical appraisal tools, assessing risk of bias and level of certainty. JBI appraisal scores were independently verified by the research supervisor for accurateness and consistency.

2.1.6 Data analysis

Thematic and content analysis are used in research to organise and interpret data (Crowe et al., 2015). The final narrative is built from the established categories and themes in the data (Crowe et al., 2015). The key difference between content analysis and thematic analysis is that content analysis reduces data to categories while thematic analysis investigates the categories further to create themes (Crowe et al., 2015). Content analysis is more deductive and thematic analysis is more inductive (Crowe et al., 2015). Content analysis with a deductive method was selected for this study as the researcher already had some understanding of what literature existed and was beginning to form a hypothesis that could be tested (Woiceshyn & Daellenbach, 2018). Content analysis is made up of three-phases: (a) preparation: designing, identifying, sampling; (b) organising: coding and categorising; (c) reporting: presenting and linking (Elo & Kyngäs, 2008). Coding and classifying the analysed data are central steps of content analysis; coding labels describe a meaning unit and a category describes the phenomenon being investigated (Graneheim & Lundman, 2004). The categories of this study are presented under the findings subheadings.

2.2 Findings

In this section the primary studies of Safewards are discussed. The findings of this literature review are presented under the headings of (a) primary outcomes: conflict, containment and coercion; (b) secondary outcome: ward climate; (c) participant perspectives: staff voice and service user voice; (d) fidelity; (e) future practice; and (f) literature reviews. This literature review ends with identification of gaps in literature.

2.2.1 Primary outcomes

Primary outcomes of the Safewards model, as articulated by Bowers et al. (2015), are conflict, containment and coercion, often measured through the Patient-staff Conflict Checklist (PCC).

Conflict and containment

The PCC was developed in the original Safewards research and is the main data collection instrument for the types of service users and the levels of conflict and containment on the ward (Safewards, n.d.-a). It is designed to be fast, simple and completed at the end of each shift (Safewards, n.d.-a). In several of the discussed studies, the nurse in charge completed this checklist

(Bowers et al., 2015; Dickens et al., 2020; Price et al., 2016). There is a Safewards handbook available to guide staff (Safewards, n.d.-a). Safewards (n.d.-a) recommend that the PCC be collected for three months pre-implementation and then for at least three months during the implementation period. Completion rates would need to average at least 66%, though this suggestion does not have a specific rationale (Safewards, n.d.-a). Collected data is then entered electronically for statistical analysis, comparing pre-post implementation data periods (Safewards, n.d.-a). The benefit of the PCC is that it supports research credibility; the disadvantages are that the data collection takes staff time to complete, requires manual entry and without comparison to other wards any changes to the data pre-post may be influenced by other variables (Safewards, n.d.-a). In literature, the RCT reported that less than half of the PCC forms were returned in the outcome phase of the RCT (Bowers et al., 2015). Similarly, Price et al. (2016) reported that staff considered the PCC to be a burden. Because of the low PCC response rate in the original RCT (Bowers et al., 2015), Fletcher et al. (2017) didn't apply this checklist. In contrast, Dickens et al. (2020) reported a high PCC response rate and demonstrated the tool as an achievable measure.

The original Safewards RCT by Bowers et al. (2015), introduced in chapter one, was undertaken to evaluate the efficacy of Safewards in reducing conflict and containment. This quantitative study included 31 adult psychiatric wards at 15 hospitals within 100 kilometres of central London. Experimental wards applied the 10 Safewards interventions (n=16) and control wards (n=15) implemented a package of interventions to improve staff physical health and was predicted to not impact conflict and containment rates. There were no significant ward, gender, age or ethnicity differences between the two groups. In total, 88% of staff (n=564) gave their consent to participate. No service users were recruited. The Safewards model was implemented for 16 weeks and data were collected at baseline and outcome periods. Primary outcomes were total conflict and containment rates, measured through the PCC. Compared to the control group, the Safewards interventions group reduced conflict events rates by 15% and containment events by 26.4%. There were no significant differences in the rates of zero event shifts for conflict or containment. Key limitations of this study are the short time frame and that less than half of the PCC forms were returned in the outcome phase, the consequence of some wards providing very high return rates and others very low. This is less than the average of at least 66% recommended by Safewards (n.d.-a). The rates of missing data were high, but were the same for both control and experimental groups. This study showed that Safewards interventions may improve outcomes for service users and staff, possibly significantly.

Dickens et al. (2020) measured, for the first time in Australia, changes in shift-level reports of conflict and containment associated with the introduction of Safewards. This was measured through the PCC. The implementation of Safewards occurred within eight acute adult inpatient wards at one DHB over 20 weeks (four-week preparation, 12-week implementation and 4-week outcome phases). The Safewards intervention was delivered by a project officer, registered nurse and a professor of mental health nursing who were informed by a steering group of primarily two consumer representatives, one consumer representative manager, one clinical nurse consultant and one executive nurse manager. A group of nurses volunteered from each participating ward to plan the Safewards implementation. The study utilised a train-the-trainer model for clinical nurse consultants and educators to support preparation and implementation. The findings of this study showed that rates of conflict and containment fell significantly from baseline to implementation phases and baseline to outcome phases, but did not fall further after implementation phase to outcome phase. Conflict events occurred more on day shifts than any other shift and day shift also experienced more physical aggression. The response rate of returned PCCs over the 20 weeks was 63.2%, slightly less than the 66% average recommended by Safewards (n.d.-a). There were no significant differences in conflict and containment events occurring on weekends compared to weekdays. Overall, conflict fell 23% and containment 12% following the implementation of Safewards, similar to the 15-20% reported in the original Safewards RCT by Bowers et al. (2015). Dickens et al (2020) found that Safewards reduced conflict and containment despite not using all 10 interventions. The high response rate of the PCC demonstrates that this tool was an achievable measure, especially when supported by management. A key limitation of this study is that not all wards implemented all 10 Safewards interventions, two wards chose to implement nine and one ward eight. This research is also limited by its short follow up period. Dickens et al. (2020) highlighted that services not implementing the Safewards model are at risk of practising against the current literature and emerging evidence.

Following the original RCT, Price et al. (2016) published one of the first Safewards model papers. The researchers aimed to evaluate Safewards at one forensic unit to explore its effects on rates of conflict and containment. This mixed-methods study used a non-randomised design with the wards selected to be in control (n=3) or intervention (n=3) groups based on equivalent size, gender and function. For two weeks before Safewards implementation, baseline measures were collected and the training in implementation wards occurred. An afternoon of training for ward managers and team leaders was then followed up with a seven-day train-the-trainer method. A ten-week Safewards implementation period followed on the intervention wards where all 10 interventions

were implemented at once. Then another ten-week implementation period of data collection occurred where all six wards implemented Safewards, enabling inter-ward analysis. Conflict and containment rates were measured using the PCC. The response rate for PCCs was 71.07%, above the average recommended by Safewards (n.d.-a). Quantitative data found no significant benefit of Safewards when comparing the intervention and control groups. While rates of conflict and containment fell on the interventions wards, these did not reach a level of statistical significance. There was a statically significant relationship between ward and conflict and containment ($p=.001$). As seen in 15 of the 21 primary articles in this study, a limitation is the lack of service user involvement. Demands of the ward environments were identified as affecting the implementation of Safewards. Price et al. (2016) recommend that staff need extensive preparation and understanding of the model to support acceptance and adherence of Safewards.

Maguire et al. (2018) undertook an explorative mixed-methods study to investigate if Safewards changed the rate of conflict and containment events in a 20-bed male forensic ward. Rates of conflict and containment events were already collected by the services incident management system so a PCC was considered as not required. Service users ($n=14$) and staff ($n=12$) participated in the study. The researchers provided the training to all ward staff over two workshops, implementing five interventions at each workshop and workshops were hosted six months apart. A steering committee oversaw the introduction and evaluation of Safewards and a working group oversaw the introduction period at the ward level. A point of difference from other studies is that two service users from the ward were recruited into paid roles within the ward working group. All service users received education on the Safewards models and were updated through ward meetings and newsletters (Appendix W: Monthly newsletter example). Maguire et al. (2018) found that there were 65 fewer incidents of conflict after Safewards was implemented. This study is limited by its sample size and setting, and the low baseline rate of conflict and containment events. Due to small numbers of conflict and containment events, the rates couldn't be statistically analysed. As this study was limited to a 20-bed male forensic service, its applicability to other mental health services is likely limited.

Davies et al. (2020) evaluated the implementation of Safewards within an assessment and treatment unit for people with an intellectual disability, the only Safewards study to be undertaken in this setting. This mixed-methods research gathered quantitative data from the PCC for one month at baseline and one month after 12 months of Safewards implementation. The PCC was completed by one staff member each shift during the PCC collection periods. Staff were educated on

Safewards by the ward psychiatrist and interested staff volunteered to be intervention champions. Most of the 10 Safewards interventions were introduced over a month each, depending on how effectively they were adopted, and monthly meetings were held to discuss progress. The quantitative results showed statistically significant reductions in several areas after the Safewards model was implemented: aggression, absconding, medication-related behaviours and containment, verbal aggression, physical aggression against objects, physical aggression against others, attempting to abscond, refused PRN medication but later accepted, given psychotropic medication, special observations continuous and time out. There was an increase in service users refusing to get up. The limitation of Davies et al.'s (2020) study is the long period between the PCC collections (month one and month 12) and the missing report on the response rate of the PCC. There were other initiatives applied within the service so it cannot be said with certainty that the outcomes are directly related to the Safewards model.

Coercion

In the first Safewards evaluative study from German healthcare, Baumgardt et al. (2020) evaluated the implementation process of the model between 2016 and 2018 when it was implemented for 12 months on two acute inpatient mental health wards in Berlin. Implementation was evaluated through mixed-methods research and outcome measures were frequency and duration of coercive events 10 weeks before and after implementation. Coercive measures in the study setting were mechanical restraint; forced medication; and limitation of freedom of movement. Limitation of freedom of movement confines service users to their room where they are allowed to leave their room for specific timeframes and purposes. Baumgardt et al. (2020) distinguish this from seclusion, a practice used in New Zealand, as seclusion confines a person, usually alone, to a locked room that they cannot open from the inside (Ministry of Health, 2023b). Baumgardt et al. (2019) utilised the Safewards preparation checklist throughout implementation and started by forming a steering group that met weekly, made up of the department and nursing directors, a project manager and a ward psychiatrist. The 10 Safewards interventions were introduced at an all-day workshop with all staff from the two wards. Staff were able to volunteer to be Safewards champions and assisted in the planning, organisation and implementation of their intervention using the online Safewards resource kit and attended a further workshop. Some adaptations were permitted, such as the know each other data, but did not change the core intervention. Two out of the 40 total staff declined to support the Safewards implementation and were shifted to a non-participatory ward. Each Safewards intervention was implemented within one month over 10 months, usually within regular weekly staff meetings, and non-attendees were later trained

individually. Implementation was overseen by ward managers and consultant psychiatrists. Unlike several other studies, all Safewards interventions were implemented. Baumgardt et al. (2020) found that fewer people had coercive measures applied after the implementation of Safewards in both wards, though the decrease was only statistically significant in one ward (p=0.01). This ward also reduced the duration of the coercion event to a level of statistical significance (seven percent to one percent). The ward that didn't see changes to a level of statistical significance, was the ward that paused the Safewards model for eight months due to high workload and changes to team structure.

In the largest study of the Safewards model to date, Fletcher et al. (2017) researched the Safewards model within 13 wards (adult=10 and adolescent=3) and used 44 non-participatory wards for comparison. The research occurred in Australia over 15 months: three-month preparation, 12-week trial and a 12-month follow-up period. Implementation of Safewards was in response to the Victorian state's goal for mental health services to reduce and eliminate restrictive interventions. Fletcher et al. (2017) focused on comparing seclusion rates between experimental and comparison wards. To implement the model, three train-the-trainer education sessions were held for nurse educators, who then ran local training to approximately 75% of ward nurses. Two data sources were utilised, existing ward and service user data, as well as the fidelity checklist completed by the research team at four intervals. Like Baumgardt et al., they did not utlise the PCC. The results of Fletcher et al.'s (2017) study were that seclusion rates per 1000 beds reduced 36% from baseline (n=14.1) to the end of the 15-month follow-up period (n=10.1) to a level of statistical significance (p=0.04), whereas in the comparison group, there was no difference in the seclusion rates during post or follow up periods, compared to the baseline period. This study showed that the Safewards model can reduce seclusion rates. A limitation of this study is that the researchers forewent the PCC due to the demands on staff time and the low response rate reported by Bowers et al. (2015). This restricted their measures of conflict and containment and the researchers focused on seclusion, which occurs within their services at a rate of almost zero. This is also seen in Maguire et al. (2018) where seclusion occurred at the same rate after the Safewards intervention and were already low within the non-acute ward. A limitation of Fletcher et al.'s (2017) study was that while the comparison wards didn't implement Safewards, they were part of a State initiative to reduce restrictive practices and were involved in seclusion reduction projects at the time of this study. However, the comparison group's seclusion rates increased, suggesting that Safewards was more effective than the State initiative alone.

Lickiewicz et al. (2021) aimed to measure the effectiveness of Safewards in reducing mechanical restraint at a Polish mental health hospital with male service users. The selection of mechanical restraint likely indicates a difference in practice settings to New Zealand, where mechanical restraint is rarely used. International rates of mechanical restraint vary, with some regions applying policies to reduce and eventually eliminate the practice while others continue to see mechanical restraint as part of their standard practice (Newton-Howes et al., 2020). Newton-Howes et al. (2020) compared the 2017 rates of mechanical restraint in the Pacific Rim countries per day per one million people aged 15–64:. Rates reported were: New Zealand 0.03; Japan 98.8; Australia 0.17; and United States 0.37. Lickiewicz et al. (2021) implemented just three Safewards interventions, positive words; reassurance; and clear mutual expectations. Staff were trained by the researchers. The eight-month study period data (frequency of mechanical restraint and the number of service users restrained) were compared to the corresponding time frame the previous year. Lickiewicz et al. (2021) found that the Safewards intervention contributed to a 24% average decrease in the use of mechanical restraint, reaching a level of statistical significance on the day and night shifts. The number of service users mechanically restrained decreased by 34% from a mean of 21.6 to 14.9 service users. Total restraint episodes before Safewards was 173 which fell 31% to 119 during the Safewards study period. An increase in mechanical restraint use near the end of this study coincided with administrative change and the eventual termination of the Safewards research.

Similarly, Maguire et al. (2018) saw physical and mechanical restraint increased slightly after Safewards was implemented, with the average length of time service users were mechanically restrained remaining at 2.8 days. Lickiewicz et al. (2021) found that following implementation of Safewards staff-service user interactions were more communicative and service user-orientated, shifting nursing care from supervisory to more interactive. The researchers linked this to the outcomes also seen in Fletcher, Buchanan-Hagen, et al. (2019). A limitation of Lickiewicz et al.'s (2021) study is the implementation of only three Safewards interventions however, this study showed that implementing just three interventions can be effective in reducing containment. This study prompts the question, are all 10 Safewards interventions necessary to reduce conflict and containment? Because Safewards is always evaluated as a model in literature it is not yet known how many interventions are optimal; what ones are the most effective; and whether a point of saturation is reached as more interventions are included.

Stensgaard et al. (2018) investigated whether the Safewards model reduces the frequency of coercive measures. The study collected quantitative data on overall coercive measures; mechanical restraint; and forced sedation, from adult psychiatric hospitals in the Southern Region of Denmark (n=15). The study completed an interrupted time-service analysis, comparing coercive data before and after implementation. Coercive data were obtained from a five-year and three-month period. Before Safewards was implemented, the rate of overall coercive measures was decreasing (1 percent per quarter) and Safewards increased the rate of this decline to 3 percent per quarter. Mechanical restraint had a similar pre-Safewards downwards trajectory (4 percent per quarter) however Safewards stabilised this rate. Pre-Safewards, the use of forced sedation was increasing (3 percent per quarter). Safewards reversed this trend and caused the rates to decrease (8 percent per quarter). A key limitation of Stensgaard et al.'s (2018) study is the researchers' decision to not use a fidelity checklist so the level of intervention implementation is unknown.

A significant gap in the literature is that the only Safewards study to have occurred in New Zealand is that of Dawson (2020) who undertook mixed-methods research in Auckland on two acute adult inpatient mental health units to measure the model's effectiveness and acceptability to staff. Data were collected at two sites over 12 months pre- and post-Safewards implementation including rates of seclusion; restraint; staff assault; and sedating PRN medication use. Additionally, the researchers adapted the staff survey from the Victorian study and completed the fidelity checklist post-implementation. Mean seclusion events per 1000 bed days were reduced by 43% after the Safewards model was implemented. Although results did not reach a level of statistical significance, total seclusion minutes were reduced by 41%. Restraints and staff assaults were also reduced. Dawson (2020) demonstrated that the Safewards model decreased seclusion events without impacting on other containment measures, except for PRN medication use which increased by a very small amount. The main limitations of this study were that the PCC was not used, and Dawson (2020) instead utilised electronic records which meant that absconding; self-harm; suicide attempts; assaults on service users; and increased level of observations, were excluded due to time and data accuracy challenges. Also, low staff response to the survey may have affected results.

2.2.2 Secondary outcome

The secondary outcome of the Safewards model is ward climate, measured through established tools, including the Ward Atmosphere Scale (WAS); Essen Climate Evaluation Schema (EssenCES); Violence Prevention Climate (VPC-14).

Ward climate

Ward climate, sometimes referred to as social climate, is a multifaceted measure of emotional and social factors of a ward that can influence the experience, mood and behaviour of service users and staff within the environment (de Vries et al., 2018). Ward climate is an important factor of treatment efficacy in inpatient mental health hospitals (World Health Organization, 1953). Palviainen et al. (2020) described that capturing the atmosphere of mental health wards is important as a positive ward climate is associated with improved "care commitment, care motivation, better treatment outcomes, and higher patient satisfaction with their care and quality of care, as well as staff job satisfaction and wellbeing at work" (p. 19). WAS, EssenCES and VPC-14 are discussed below and the reliability of the tools will be shown through Cronbach's alpha, one of the most widely used measure of internal consistency of a scale or test (Bonett & Wright, 2015).

Previously the standard tool for measuring climate in mental health settings, the WAS prompted the collection of social climate in research (Schalast et al., 2008). It was developed by Moos and Houts (1968) and is a 100-item tool designed to assess 10 traits of the social climate. Being over 50 years old, a number of items are outdated and the 100-item design is not time efficient. Rossberg and Friis (2003) revised the original tool, retaining the 10-trait structure but removing 23 questionnaire items. Psychometric properties improved slightly but internal consistency (Cronbach's alpha) remained as low as 0.63, and one fifth of the scale's inter-correlations exceeded 0.60 (Schalast et al., 2008). The revised WAS remained inefficient and didn't capture perceived safety, leading to the creation of EssenCES (Schalast et al., 2008). Notwithstanding the limitations of the WAS, the instrument was applied by two primary studies (Bowers et al., 2015; Palviainen et al., 2020). The Essen Climate Evaluation Schema (EssenCES) questionnaire, made up of a 15-item questionnaire with five-point Likert scales, was developed by Schalast et al. (2008) for forensic services. In several comprehensive forensic and correctional studies, the EssenCES is considered a valid and reliable tool (Siess & Schalast, 2017). The tool has shown good psychometric properties, meaning it's an effective measurement that maps a group of people into a structured set of numbers that accurately reflect characteristics of the group (Ramsay, 2001; Siess & Schalast, 2017). The psychometric properties of this questionnaire include good internal consistency (Cronbach's alpha) ranging from 0.73 to 0.87 for the three scales; solid three-factor structure; construct validity with statistically significant correlations to other climate measures, including WAS (Schalast et al., 2008). The EssenCES was applied in four of the primary studies (Baumgardt et al., 2020; Cabral & Carthy, 2017; Hottinen et al., 2020; Maguire et al., 2018). The VPC-14 gathers the

perceptions of service users and staff on violence prevention in mental health settings (Hallett et al., 2018). The VPC-14 is a 14-item tool with five-point Likert scale; staff and service user actions make up the two subscales (Hallett et al., 2018). Demonstrating good psychometric properties and validity, the two subscales demonstrated good internal consistency (Cronbach's alpha 0.89 and 0.76) (Hallett et al., 2018). Some correlations were identified between subscales of the VPC-14 and the EssenCES. Hallett et al. (2018) describe VPC-14 as the most robust tool to measure inpatient violence prevention climate. This tool was applied by one primary study (Dickens et al. (2020), during baseline and outcome phases.

Evaluating changes in ward climate was completed by seven primary studies (Baumgardt et al., 2020; Bowers et al., 2015; Cabral & Carthy, 2017; Dickens et al., 2020; Hottinen et al., 2020; Maguire et al., 2018; Palviainen et al., 2020). The original RCT's secondary outcomes were the Attitude to Personality Disorder Questionnaire, Self-harm Antipathy scale, WAS and the control group's health survey (SF-36v2) (Bowers et al., 2015). WAS, Self-Harm Antipathy Scale, Attitudes to Personality Disorder Questionnaire showed no difference between control and Safewards groups (Bowers et al., 2015). Maguire et al. (2018) applied the EssenCES survey pre and post-Safewards. Ward climate data showed significant improvement in service user scoring of patient cohesion after Safewards was implemented. Staff perception of patient cohesion and experienced safety increased significantly. Baumgardt et al. (2020) collected the EssenCES survey from staff and service users to evaluate ward atmosphere. The researchers also asked one job satisfaction question to staff in their survey. As well as a reduction in coercive measures, this study also saw an improvement in ward atmosphere and job satisfaction.

In the first study of Safewards on an adolescent unit, Hottinen et al. (2020) undertook a research study on six wards in Finland to investigate Safewards implementation in this setting and explore its impact on the social climate from the perspectives of both service users and staff. Their implementation method was different from some previous Safewards studies, as rather than introducing all interventions simultaneously, the Safewards model was introduced at staff meetings and one intervention was implemented every two weeks. Interventions were modified by staff to better suit adolescent wards. The EssenCES questionnaire was used to collect staff and service user data, before and after the Safewards model was implemented. In contrast to most other studies, staff were multidisciplinary and consisted of registered nurses, doctors, occupational therapists, psychologists, physiotherapists, social workers, secretaries and cleaners. The response rate of service users was 51% (n=42) before Safewards intervention and 44% (n=39) after; for

staff, the comparable rates were 81% (n=134) before Safewards and 69% after (n=115). Before Safewards was implemented, staff rated service user cohesion significantly higher than the service users did, adolescents' experience of safety was significantly better than that of staff, and staff rated therapeutic hold higher than adolescent service users. After Safewards was implemented, there were no statistically significant changes to these findings. The adolescents' experience of safety remained better than staff experience, staff felt more secure after Safewards was implemented and service users rated cohesion and therapeutic hold higher. A key limitation of Hottinen et al.'s (2020) study was the low level of service user participation.

Using the EssenCES tool and, also set in Finland, Palviainen et al. (2020) wanted to describe the social climate of a forensic ward and its development during the implementation of the Safewards model. Participants were both staff and service users (n=335) within eight forensic departments and self-selected to participate if they met inclusion criteria. Data were obtained through a questionnaire, collected twice, six months apart. No identifying information was collected therefore a direct comparison of the results could not be completed. In terms of participation in the first survey, there were 73.8% of staff (n=110) and 39.7% (n=56) of service users included. Similarly, 74.5% of staff (n=111) and 41.1% of service users (n=58) participated in the second survey. Reaching statistical significance, staff rated the wards as more therapeutic than service user ratings in the first survey. At both intervals, service users rated their sense of community and mutual support higher than staff, however this difference was not to a level of statistical significance. Staff rating on the service user community and mutual support did not change after Safewards implementation. Overall, service users' views did not change to a level of statistical significance when comparing the first and second surveys. Staff experience of safety was lower in the first survey. Staff rating of safety was lower than service user experience of safety to a level of statistical significance. An important finding of this study is the disturbingly low sense of safety for staff and despite this, they are still able to support the service users to feel that the ward is a safe place. The EssenCES data appeared to support the ward climate as a rehabilitating and safe experience for service users. Palviainen et al's (2020) study is limited by the fairly low response rate of service users at both data collection points, with service user non-participation, possibly due to mental state or their negative experience. Some participating wards had so few service users participating that ward averages were not able to be calculated.

Cabral and Carthy (2017) completed a pilot study of Safewards within a forensic service in London 2014-2015. The main outcome was to evaluate the implementation of Safewards on six pilot wards

with staff (n=102) and servicer users (n=89). The study also aimed to measure Safewards' impact on the experience of safety and staff experience of Safewards implementation. The study collected social climate data through the EssenCES and Developing Recovery Enhancing Environments Measure (DREEM). All staff and service users were invited to complete the questionnaire at baseline and then six months after Safewards was implemented. There was a high turnover of both staff and service users during the study period. A total of 59 questionnaires were returned by service users (n=41) and staff (n=18) at baseline and 66 questionnaires by service users (n=30) and staff (n=36) at follow-up. The mean score of all three domains of the EssenCES increased at the follow-up period compared with baseline, patient cohesion from 1.29 to 2.27; experienced safety from 1.36 to 2.17; and therapeutic hold from 1.89 to 2.90. The DREEM survey was completed by staff and service users following the implementation of Safewards to measure the impact of the interventions. The 2016 results saw a positive response when compared with the 2014 DREEM surveys. Most service users' responses indicated a positive experience that is associated with personal recovery. This study supports the application of Safewards within forensic mental health services, though the study is limited by the interventions only being implemented for a short time and with small sample size. The researchers reported that Safewards can support therapeutic environments and minimise the use of restrictive practices. Their study indicates positive social climate results however, their mixed-methods evidence is minimally reported in their paper, particularly the DREEM results. Similar to the recommendations of other studies, Cabral and Carthy (2017) identify the need to overcome the barriers to creating change within services.

2.2.3 Participant perspectives

Patient-centred medicine is increasingly common in healthcare but this change is not reflected in clinical research (Sacristán et al., 2016). Clinical research often occurs without participant involvement, where research is more likely to occur on service users than with them (Sacristán et al., 2016). While service user engagement in clinical research is practice, it's not standard practice (McKenzie et al., 2022). Service users should be involved in research and are essential to creating research that directly benefits them (Evans et al., 2013; Sacristán et al., 2016). Staff and service user perspectives will be discussed below. Reflecting the literature, only six of the 21 primary studies included a service user perspective.

Staff voice

Higgins et al. (2018) explored staff perceptions of the factors impacting their capacity to establish the Safewards model in three acute adult inpatient wards in Queensland, Australia. Staff perspectives were gathered through semi-structured interviews with 15 registered nurses from three wards, conducted 12 months after Safewards was implemented. The researchers' experience was in keeping with the findings of some previous studies in that staff experience with the Safewards model varies and implementing change within mental health nursing practice is a challenge (Cabral & Carthy, 2017; Davies et al., 2020; Fletcher, Buchanan-Hagen, et al., 2019; James et al., 2017; Lee et al., 2021; Price et al., 2016). There was a difference in perspective between staff experience, with registered nurses reflecting positively on Safewards more likely to be recently qualified. Some experienced staff found some Safewards messages patronising, and the language of the model was identified as something that could change. Barriers emerged of staff being resistive to the model. These challenges emphasised the need for senior management staff to support and promote the Safewards model. A delay between education and implementation highlighted the importance of putting new skills to practice promptly. Staff training was not always understood, and high acuity was identified as a barrier to implementing the Safewards interventions. A culture change was discussed as being required, where engagement needs to be prioritised over task-based nursing. Safewards champions without seniority struggled with generating change. Staff engagement and buy-in were major determinants for successful Safewards implementation. Higgins et al.'s (2018) study is limited by the small participant number of 15 staff. Time constraints limited the researchers from collecting data on service user perspectives.

Another study to explore staff experiences was conducted by Lee et al. (2021), who explored mental health nurses' experience of the introduction and practice of Safewards. This qualitative research gathered the perspectives of mental health nurses (n=16) and managers (n=5) in an inpatient adult unit in Ireland. Nursing managers were Safewards champions, attending a two-day in-service training, followed up with a train-the-trainer approach. The 10 Safewards interventions were phased in over 12 months. After 12 weeks of implementation of three interventions (Reassurances, Soft Words and Discharge Messages), three focus groups (two with nurses and one with managers) were held. Four themes emerged from data analysis and are discussed further below, (a) introducing Safewards; (b) the challenge of Safewards; (c) the impact of Safewards; and (d) working toward success (Lee et al., 2021).

The theme of introducing Safewards explored how staff felt the model and interventions were introduced. Staff felt the initial introduction was only brief and that following launch enthusiasm, the model implementation started to wane. The researchers felt this may have contributed to staff feeling that Safewards wasn't going to be implemented long term. Staff not being fully informed led to interventions not being used. Staff struggled with engaging and completing education resources, due to time pressures and learning styles. Champions struggled with managing their workload whilst trying to educate staff. The second theme, the challenge of Safewards, explained the difficulties of implementation. Staff discussed the struggle of trying to implement Safewards within a busy environment. Implementation of less visible interventions, including Soft Words, was difficult to measure, in comparison to the displayed Discharge Messages. While staff could describe visual displays, such as Safewards posters, they had difficulty describing how to implement them, suggesting a lack of understanding. Negative views about the Safewards model arose, when staff felt that the interventions have long been a part of their practice. Negative staff attitudes were identified by Lee et al. (2021) as a considerable challenge in implementing Safewards.

The theme of the impact of Safewards explores experiences of how Safewards impacted nursing practice and service user experience (Lee et al., 2021). As seen in other studies, there was a mixed response from staff; some felt Safewards didn't impact on practice or outcomes, most felt that they were already implementing the interventions pre-implementation, while others thought Safewards improved communication and relationships with service users. Some interventions were eventually abandoned by staff, such as Discharge Messages. Positive feedback was that Safewards made staff more mindful of how they engaged and cared for service users, including being more positive, empathetic and understanding their behaviour. Suggestions for implementation were the focus of the theme of working toward success. Mandatory and in-depth training for all staff, was identified as a requirement in all focus groups and believed to contribute to successful Safewards implementation. Champions felt more specific information for staff on the model and theory would support buy-in. Champions felt unprepared to implement staff training on Safewards. Nurse participants felt they needed to be more involved and wanted their views heard and considered for the Safewards implementation to be effective. As well as staff involvement and buy-in, nurses recommended that management involve service users so that they are aware of the model and can provide feedback. The implementation process left participants ineffectively trained and educated to implement the Safewards model. Without formal or mandatory training, staff didn't have a good understanding of Safewards and education materials provided, were criticised by staff. These factors contributed to poor staff acceptance and adherence to the Safewards model. In line with

the findings of Higgins et al. (2018) and Price et al. (2016), the effectiveness of the train-the-trainer approach for implementing the Safewards model is questionable. As in Higgins et al. (2018), support from management was identified as a success factor by Lee et al. (2021).

Fletcher, Hamilton, et al. (2019) wanted to understand the impact of Safewards from the perspectives of staff. A survey collected qualitative and quantitative data from staff (n=103) from 14 inpatient units consisting of adolescent, adult, aged acute and secure extended care services in Victoria, Australia. Participants were 55% registered and enrolled nurses and, like Hottinen et al. (2020), the remainder were multidisciplinary, including occupational therapists, social workers and medical staff. Fletcher, Hamilton, et al.'s (2019) data were collected over several months one year after the Safewards model was implemented when an average of nine Safewards interventions was being implemented. On average, staff rated Safewards suitability and interventions as *good* to *very good*. Staff responded that each Safewards intervention was used *sometimes* to *usually*. Staff felt that it was *probable* to *highly probable* that Safewards would still be in place in 12 months. Staff thought more clearly (45% and 55%) that Safewards positively impacted on the reduction of physical and verbal conflict, reporting it *usually* or *always* had an impact, whereas its impact on absconding and property damage was voted as *usually* or *always* only 30% and 35%. Most staff feedback was that nurses were positive about Safewards being introduced. Staff felt safer on the ward, as 50% rated *usually* or *always*, and were more positive about being in the ward. Most staff felt that staff and service users were on a more even standing 90% *sometimes* to *always*.

Four themes arose in Fletcher, Hamilton, et al. (2019), from the qualitative responses of staff, who rated the model and interventions as *excellent*, (a) structured and relevant, refreshing their training and focusing on relationships and holistic care; (b) conflict prevention and reducing restrictive interventions, interrupting the cycle of conflict and containment through listening and respect; (c) ward culture change, facilitating relationships and collaboration (particularly know each other, Clear Mutual Expectations and Positive Words interventions); and (d) promoting recovery principles, enhancing choice, peer support and respect. The critical responses of a small group of staff participants who rated interventions as *poor* or *fair* (n=5) were categorised into two themes: incompatible and procedural concerns. The results of this study indicated that staff felt that Safewards positively impacted flashpoints and had the most confidence in its impact on verbal and physical conflict. The theme of conflict prevention and reducing restrictive practices are indicative of a culture shift away from restrictive practices which support trust and relationship building between service users and staff. An identified limitation was that the staff sample may be

compromised as staff self-selected to participate and may have felt more positively about the Safewards model (Fletcher, Hamilton, et al., 2019).

Staff feedback on the Safewards interventions was collected through individual and groups meetings in Price et al.'s (2016) study. Qualitative data found that staff views were mixed. Staff from male wards tended to view service users' chronic dysfunctional behaviours, as them relating with those around them, rather than inadequacies with staff communication skills or collaboration with service users. A perception from the male wards was that the interventions were only for receptive service users and that most engage minimally with staff beyond having their needs met. Staff from female wards had the most positive feedback, they felt more confident, more understanding of behaviour and less fearful. Some staff felt that the implementation method was not adequate to prepare staff, was rushed and left them feeling unprepared. To reduce feeling overwhelmed, staff recommended a staggered approach to applying the 10 interventions. Successful implementation of interventions was attributed to champions, an inconsistent practice across the wards. The belief that these interventions were already occurring in practice and resistance to change was seen across all wards. The PCC was considered a burden by some staff and may have negatively affected engagement (Price et al., 2016).

Intervention feedback in Price et al.'s (2016) study included that low staffing levels were identified as a barrier to staff adherence with interventions that required engagement with service users, such as calm box and Mutual Help Meetings. On the male wards staff feedback from Mutual Help Meetings was that service user engagement was impacted by their confidence and fear of one another. Staff felt that interventions performed at handover, including Positive Words and Bad News Mitigation, would be supported through role modelling from the project team and improved with a handover template. Reassurance was viewed positively by staff. There was evidence that the Safewards interventions were only superficially understood and that some interventions were not designated champions. Lack of service user involvement caused mutual expectations to appear as ward rules rather than as collaborative. The Calm Down Methods was viewed as effective, more so on female wards, where it reduced anxiety and communicated staff compassion. Staff were concerned about the confidentiality of Know Each Other and Reassurance. Staff also communicated concerns about the Discharge Messages increasing agitation by reinforcing hopelessness from cycling back to the ward and abandonment by peers; there was no evidence of this occurring, but these concerns may have impacted on staff adherence to the interventions (Price et al., 2016).

In Davies et al.'s (2020) study, intervention champions gave qualitative feedback on the Safewards interventions. Clear Mutual Expectations were decided upon by staff and services users and displayed on posters in communal and staff areas. Discussing these on admission and with new staff, could support their application and they require regular review to keep meeting service needs. Soft words were seamlessly implemented, mostly through team conversations where staff prompted each other to use Soft Words and there was a changing display located in the staff room. Staff felt that beyond service users, staff communicated more effectively with one another, and the team unit felt more happy, healthy, cohesive and thoughtful. Talk Down champions were renamed to intervention leads as staff felt that everyone should be Talk Down champions. To overcome the challenge of educating students, Talk Down became included in staff induction packs and new staff met with intervention leads within two weeks of starting. Positive Words were given a section in handovers which served as a prompt for staff to use this intervention, which through the support of the deputy manager attending handovers, gradually become more accepted and was then effectively incorporated into daily practice, improving the way staff spoke about the people in their care. Bad News Mitigation improved the planning of shifts, where prediction of triggering situations helped staff plan how to support service users better. Know Each Other was renamed, simplified from the original and presented as a file.

Davies et al.'s (2020) reported that it was a challenge to keep the staff file updated and service users had cards, but the turnover rate meant that this was rarely completed; the researchers planned to include this in the admission induction in the future. Service users felt more heard after the intervention of Mutual Help Meetings and the identified coping strategies were felt to be effective. The regularity of the meetings was a challenge, and this was overcome by all staff taking responsibility, not just the intervention lead, and it was combined with an existing morning meeting. The calm down methods aimed to calm people instead of immediately utilising medication and were found to be effective if utilised in the early stages of distress. Though a stock take folder was used, it was a challenge with items going missing or breaking. Keeping up with regular stock checks was a further challenge. A protected time to check, clean and stock calming methods was identified to overcome these challenges. The reassurance intervention was taught through the sharing of an educational video, about how frightening an acute admission can be and a poster, this was then shared with new staff. Any reassurance required was also discussed at handover so the next shift could also support staff. The Discharge Messages tree intervention was renamed and was displayed at the entrance of the unit, with service users writing on either a leaf or apple. Service users and visitors found this reassuring and staff enjoyed receiving positive

feedback. A challenge was ensuring staff collected a message before service users left. As reflected in other studies, the language is not always right for the service and can be altered if it adheres to the Safewards model. As with most other Safewards studies, the service user's voice was not directly collected during Davies et al.'s (2020) study.

In the study of Cabral and Carthy (2017), implementation staff leads (n=12) sought feedback from their wards by asking what the benefits and difficulties of Safewards implementation were. Implementation leads were then invited to a focus group to discuss the feedback and experiences. A community meeting was also hosted before the focus group, attended by service users and staff, to further collect views on the benefits and costs of implementing the Safewards model. Implementation leads (n=9) attended the focus group and all wards were represented by at least one staff member. There were three main themes that arose from the focus group, (a) clear benefits from Safewards implementation; (b) resistance to the initiative; and (c) knowledge and skills deficit of the model.

In further research out of Victoria, Australia, Fletcher et al. (2020) analysed two training methods, train-the-trainer and local training, and the Safewards implementation that followed. The researchers aimed to evaluate if the training increased knowledge, confidence and motivation to implement Safewards and to what extent training translated into practice. The study involved approximately 400 staff from 18 wards, made up of adolescents, adults, aged and secure inpatient mental health services. Train-the-trainer consisted of three educational days covering the Safewards model and the 10 interventions using the United Kingdom training package that the clinical nurse educators and selected ward staff attended. Local service training for all staff implementing Safewards was planned and implemented by the staff who attended the train-the-trainer days. For this education method, one full day of training was completed followed by in-service training to staff who could not attend some or all of the full education day. Both methods of Safewards training covered the same content. Fletcher et al.'s (2020) study evaluated the two training methods by using an online pre-post survey of staff. The researchers attempted to create a unique identifier of birthdate and postcode but most staff did not enter this so survey matching was not able to occur in this study. Similarly, Baumgardt et al. (2019) had planned to match data from pre- and post-staff surveys however the staff did not consider the identification code to be anonymous and did not fill it out, consequently, the analysis had to be less substantial group comparison.

Fletcher et al. (2020) reported that 59% of staff who attended the one-day training then attended one in-service training session and for the second method, 60% of staff attended between two and five in-service education sessions. Response rates of pre-training surveys were 60% and post-training 34%. Of the in-service training session staff, 19% reported only attending one session, highlighting that staff following the second method of in-service training sessions, received significantly less training than is required for optimal Safewards education. Comparing pre-post responses, staff knowledge and confidence increased from *good* to *very good*. Motivation to implement Safewards increased from *very good* to *excellent*. In terms of satisfaction with training, the only statistically significant result was that people who attended the full day of training were more satisfied with the training videos, than in-service training session participants. Staff from either training method reported on average that they would see themselves implementing Safewards in their practice *usually*. Most wards were successfully translating their education into practice. In summary, (Fletcher et al., 2020) found no differences in implementation between the staff who received either method of education, reassuring services that whichever method is implemented will positively influence the knowledge, confidence and motivation of staff impending the Safewards model.

Service user voice

The development of the Safewards model relied on nursing literature and the service user's voice remains relatively absent from the Safewards literature, with only six of the 21 primary articles in this study involving service users (Baumgardt et al., 2020; Cabral & Carthy, 2017; Fletcher, Buchanan-Hagen, et al., 2019; Hottinen et al., 2020; Maguire et al., 2018; Palviainen et al., 2020). Fletcher, Buchanan-Hagen, et al. (2019) wanted to describe the impact of the Safewards model on service user experiences of inpatient mental health services as part of their Victorian study. Four health services comprising of adult, adolescent, aged and secure extended care agreed for service users to be approached for recruitment and a consumer consultant or nurse educator was present when surveys were completed. Surveys consisted of participant demographics questions, five-point Likert scales and qualitative questions. Within 10 inpatient mental health wards, 72 service users (75%) started a survey after Safewards had been implemented, although not all completed the survey. After synthesising qualitative results, Fletcher, Buchanan-Hagen, et al. (2019) discovered six data themes which are discussed below.

Recognition and respect emerged from Clear Mutual Expectations and Mutual Help Meetings, where service users felt recognised as a person and felt increased respect from staff. Clear mutual

understandings reduced the sense of staff bullying and comforted service users as they knew what was expected. Mutual Help Meetings supported service users to have a voice and be the priority. Hope was derived from the positive Discharge Messages. Sense of community was felt between service users, as well as, between service users and staff from the know each other intervention and Mutual Help Meetings. Safety and sense of calm in the ward were reported to be impacted by calm down methods and clear mutual expectations. Patronising language and intention were felt across Mutual Help Meetings, Calm Down Methods and Discharge Messages. The final theme, implementation in practice, described the service user view that Safewards implementation was reliant on staff willingness to engage, seen within clear mutual expectation inconsistency and know each other non-participation. Key quantitative findings were that 25% of service users reported that Safewards *usually* or *always* helped to resolve verbal and physical aggression; 95% of service users felt safer on the ward *sometimes* or *usually*; more positive about being on the ward, and more connected with the staff 85% *sometimes* and *always*; and 70% felt of service users *sometimes* and *always* felt on a more even standing with staff. In summary, service users felt more positive, safe and connected on the wards and felt that the Safewards model was reducing rates of verbal and physical aggression. Fletcher, Buchanan-Hagen, et al's (2019) crucial research on service user opinion is limited by the sample size as not all wards consented for service users to be recruited, not all surveys were filled in completely, qualitative comments were less common, and the study only captured service users over a short time frame (January to March 2016).

2.2.4 Fidelity

Fidelity is an important theme in the literature on clinical interventions. It is the level to which an intervention is implemented as intended and is measured for researchers to better understand how and why an intervention works (Dusenbury et al., 2003). Literature shows that the level of fidelity affects the success of the intervention (Dusenbury et al., 2003). Fidelity is essential in the evaluation of research interventions as it impacts the validity of findings and can guide future implementation (James et al., 2017).

In Safewards literature, fidelity is measured through a checklist which assesses the level of Safewards implementation through an indirect assessment of outcomes (Safewards, n.d.-a). This checklist is provided by the Safewards project team and measures the level to which the staff are observed to apply the 10 interventions (Safewards, n.d.-a). High fidelity suggests high adherence to the model and low fidelity suggests low adherence (Safewards, n.d.-a). This is supported by Dickens et al. (2020) who highlighted that fidelity is an important factor to successful Safewards implementation. The adaptable checklist measures visual evidence that the Safewards interventions

are being used and is best completed by someone external to the ward (Safewards, n.d.-a). The fidelity checklist was applied at varying rates in the primary studies, including none at all (Lee et al., 2021; Stensgaard et al., 2018); once (Baumgardt et al., 2020; Bowers et al., 2015; Dawson, 2020); two-three times (Dickens et al., 2020); weekly (Kipping et al., 2019; Price et al., 2016); and four times (Fletcher et al., 2017; Maguire et al., 2018). The visual and objective aspect of this checklist has been identified as a limitation of the tool as it does not measure the daily application, changes to nursing attitude, culture, practice or engagement (Baumgardt et al., 2019; Dickens et al., 2020). A control group as well as staff and service user feedback would strengthen the evaluation of fidelity (Stensgaard et al., 2018).

In the original RCT research assistants were employed to complete the fidelity checklists (Bowers et al., 2015). In addition to this the researchers collected a participant end of study questionnaire. Fidelity to Safewards was 38% when measured with the fidelity checklist and 90% for the control group. When converting staff questionnaires (n=79) into percentages, mean Safewards fidelity was 89% and control group (n=74) 73%. Following on from this first study to measure fidelity, we see a range of fidelity scores and that not all wards implemented the 10 Safewards interventions (Dickens et al., 2020; Fletcher, Hamilton, et al., 2019; Fletcher et al., 2020; Fletcher et al., 2017; Lee et al., 2021; Lickiewicz et al., 2021).

James et al. (2017) explored fidelity through participant observation to evaluate the quality of Safewards implementation. This 24-week qualitative study had the aim of informing Safewards implementation by describing the varying ways the intervention was implemented and exploring the factors affecting the quality of intervention delivery. Research assistants were also used in this study and collected data on the experimental ward. Primary data were collected through observational data sheets (n=565) and secondary data were collected in two end-of-trial focus groups for critical reflection. Findings of this study showed that modifications to the Safewards interventions could be grouped into (a) fidelity consistent, enhancing the intervention by going above and beyond or adjusting it to make it work within the context and (b) fidelity inconsistent, no implementation at all or making changes that would reduce the impact of the intervention. Factors impacting on Safewards implementation quality were (a) ward environment and organisation, including a busy ward, acuity, incidents; (b) team culture and dynamics, such as responses from colleagues and leaders; (c) staff skills, confidence and understanding were identified as critical factors as they directly impact on the understanding and implementation of Safewards; (d) staff values and beliefs about the Safewards intervention and trial, including Safewards

alignment with personal values and staff views of research; and (e) service users' responses to the intervention, where positive responses encouraging interventions and negative feedback leading to rejection of practice change. Traditional fidelity studies focus on adherence, but this study has highlighted the interpersonal moderators on implementing interventions and presents learnings for future Safewards implementation. The main limitation of James et al.'s (2017) study is the subjective nature of the observations.

High fidelity was found in studies that reported results of reduced coercion (Baumgardt et al., 2019). High fidelity was reported by Kipping et al. (2019) 78% after an initial lag; Dickens et al. (2020) 73.7%; Fletcher et al. (2017) 70%; Baumgardt et al. (2019) full implementation; and Maguire et al. (2018) 100% fidelity in the first two checks, followed by 85% and finally 94%. Despite a similar forensic setting to Maguire et al. (2018), Price et al. (2016) reported contrastingly low fidelity across the six wards in their research with an average of 27.28% (range of 54.13% to 88.02%). Cabral and Carthy (2017) were the only study to use a Safewards implementation audit checklist, adapted from Bowers et al.'s (2015) original Safewards RCT organisation fidelity checklist. The audit was completed at six months across the six wards and found that all 10 Safewards interventions had either been initiated or implemented, suggesting a high degree of fidelity to the implementation of Safewards after six months. The most adhered to inventions in Price et al. (2016) were Talk Down, Soft Words and Reassurance. Calm Down Methods and Discharge Messages did not reach 100% fidelity in Maguire et al. (2018) and the non-adapted Discharge Messages was not successfully implemented in a ward with few discharges. Maguire et al. identified three themes from data collected during fidelity checks. They were: (a) positive changes; (b) enhanced safety; and (c) respectful relationships. A strength of Fletcher et al.'s (2017) study was the commitment to staff training which positively influenced model fidelity. When comparing two training methods, fidelity results showed no statistically significant differences between training methods; full-day in-service training and follow up education sessions had an average fidelity rate of 82% and implemented between four and 10 Safewards interventions compared to the in-service training wards average of 77% fidelity and implemented between five and 10 Safewards interventions.

Kipping et al. (2019) support co-creation implementation to improve fidelity. Co-creation involves multifaceted collaboration from all levels of an organisation and can result in new and imaginative health-promoting projects that benefit all of the volunteers (Darlington & Masson, 2021). In the first study to report on co-creation, the researchers examined the effectiveness of implementing

the Safewards model within six forensic units in Canada through co-creation in their two-year study. The project was developed in response to legislation for employees to reduce workplace violence. This study identified critical factors for successful implementation: staff engagement, resource funding, clinical leadership buy-in and establishing a community of practice. The project was overseen by a clinical nurse specialist. Champions received five days of education on the Safewards model and following this developed implementation strategies, involving staff, service users and family in the development. Champions then returned together to share plans and receive group feedback. As Safewards was phased in at staggered dates for each ward, redesign of the implementation process could occur as required, for example, the researchers reduced the training days from five to four after the first round. Two interventions were implemented every two weeks, online training was created for staff that did not attend the champion education and an annual review of the 10 Safewards interventions was planned.

Kipping et al. (2019) found that on average 79% of all champions attended their education days and 92% of staff completed their online training. This high attendance suggested that staff were engaged in the Safewards model. Staff familiarising with the model pre-implementation and developing strategies specific for each unit supported staff engagement. Having staff central to the planning process supported acceptance and implementation of Safewards. In terms of the co-creation method, staff felt heard, appreciated, involved and that implementation was likely to be more effective because of it. A key limitation of this study is that the extent to which service users and families were involved in the co-creation is not specified and only staff feedback is reported. Co-creation enhanced adherence to the model as evidenced by high fidelity rates. Some interventions required more than two weeks to implement due to resource collection, such as painting a mural, ordering sensory equipment, and gathering the information for know each other.

2.2.5 Future practice

Several studies outlined lessons for future practice, a result of their experiences and findings. International studies will be discussed first, followed by a New Zealand study, concluding with the estimated costs of implementing Safewards.

According to Higgins et al. (2018), for effective Safewards implementation there needs to be consideration of staff willingness to engage, management support, adequate training and support throughout the implementation period. Beyond new initiatives, there is a need to understand strategies that support the embedding of new initiatives into nursing practice and culture. Safewards needs to be kept relevant and this needs to include co-design with service users to

capture their voice, alter the language to their preferences and refine the 10 interventions to meet their needs. Baumgardt et al. (2019) recommend that after implementation of Safewards, staff should reflect on the interventions and refresh them as required. This study also identifies the following factors as positive influences on reducing coercion: adequate staffing; low staff turnover; time and material resources; regular evaluation of the rates of frequency and duration of coercive interventions. Implementation of Safewards necessitates a significant level of engagement from staff and service users (Price et al., 2016). Key to successful implementation is that each of the 10 Safewards interventions requires a champion (Price et al., 2016). Some even advocate for the Safewards model to be included in undergraduate nursing programmes (Cox et al., 2016; Lickiewicz et al., 2021).

Most relevant to this study are Dawson's (2020) recommendations for implementing the Safewards model in New Zealand. These recommendations are as follows.

1. Embed Safewards within the Six Core Strategies which already exist within services.
2. Collaborate with ward staff to adapt the model to the New Zealand context.
3. Alter the language.
4. Māori led programme of work required to adapt the Safewards model.
5. Feedback from tangata whai ora and whānau is required at all levels of implementation.
6. Engage staff; and appropriate training, including motivational interviewing, required alongside existing education.

The cost of implementing the Safewards model is not well reported, only being mentioned in two of the above studies. Kipping et al. (2019) calculated the total cost, including staff time and training, intervention development and supplies as CAD 80,974.14 (NZD 92,920.66 as of October 2021). A significant cost was covering shifts to enable staff to attend champion training. Davies et al. (2020) anticipated some Safewards costs would be counterbalanced through the savings from conflict and containment reduction. The Safewards website (n.d.-e) estimates a cost of about GBP 600 (NZD 1164.83 as of 15 October 2021) per ward for associated equipment and printing.

2.2.6 Literature reviews

Just two literature reviews had been published on Safewards during this search period. These are discussed below as well as a protocol and critical reviews.

Finch et al. (2021) evaluated the effectiveness of Safewards in reducing conflict, containment and improving ward climate. The researchers included 13 primary studies which differs from the

number included in the literature review of this study as the researchers excluded studies on staff and service users' acceptance, views and perceptions as this was out of their scope. This included the only existing RCT, the highest quality study, which the researchers felt failed to provide a detailed description of how staff were trained in the Safewards interventions. As found in the literature for this research, not all studies implemented all 10 Safewards interventions. The RCT, along with other studies evaluated to be high quality, supported the effectiveness of Safewards in reducing rates of conflict and containment.

Of the included studies, seven reported on conflict. The researchers reported that five studies collected rates on conflict events, mostly through the PCC and while all five saw a reduction in conflict events, only three reached a level of statistical significance. In many of the studies, it was unclear if the results were actually due to the Safewards interventions as there were numerous possible confounders. The two qualitative studies had opposing results where Maguire et al. (2018) found that staff felt conflict rates reduced following the introduction of Safewards whereas Price et al. (2016) summarised that staff did not feel that Safewards interventions were effective for reducing conflict on their male forensic ward. The researchers noted the different definitions and management of containment events across the nine studies that reported on containment, mostly depending on the country. Of these containment studies, four studies utilised PCC, eight studies saw a reduction in containment events and six reached a level of statistical significance. Maguire et al. (2018) found no change to seclusion rates and an increase in physical and mechanical restraint. As identified in this literature review, the qualitative results of Maguire et al. (2018) and Price et al. (2016) contrasted one another. To evaluate changes in ward climate, three studies applied the EssenCES questionnaire and found significant improvements across several measures. Finch et al. (2021) evaluated the one study to use a different tool, the VPC-14, as being the highest quality study on ward climate and this study found no change following the implementation of Safewards.

Finch et al's (2021) review suggests that Safewards is an effective model for conflict and containment reduction and may improve ward climate. With the Safewards model "currently in its infancy", findings are mostly limited to general mental health inpatient settings and further research is required in settings elsewhere (Finch et al., 2021, p. 15). There remains great enthusiasm for the model internationally. For future implementation, Safewards requires significant planning and sufficient resources if it is to be successful. Future research requires larger sample sizes, strong methodology, longer implementation periods and clear processes to contribute to existing Safewards evidence. Learning how to embed Safewards into ward culture and increase staff buy-

in is considered essential for success. Improving the reliability and validity of outcome measures is important for quality studies in the future. As some studies produced positive results without implementing all 10 interventions, future studies could address which interventions make the most impact. Reducing the size of the Safewards model, and therefore the amount of staff time needed for education and implementation may support staff buy-in and adherence.

Ward-Stockham et al. (2021) completed the most recent literature review, using systematic review to evaluate the effect of Safewards on conflict and containment events in inpatient mental health units. These included the perceptions of staff and service users. The researchers included 14 studies in their mixed-methods study and utilised the JBI scoring for quality appraisal and followed the PRISMA guidelines (Moher et al., 2009) for identifying relevant studies. A narrative synthesis of these studies follows; meta-analysis was not possible in this study as it had high heterogeneity due to the diverse settings, outcome measurement tools, statistical reporting and methodologies of the research.

Ward-Stockham et al. (2021) found that four quantitative studies reported a reduction in overall conflict (Bowers et al., 2015; Davies et al., 2020; Maguire et al., 2018; Price et al., 2016), two to a level of statistical significance (Bowers et al., 2015; Davies et al., 2020). Three studies measured Safewards intervention fidelity (Bowers et al., 2015; Maguire et al., 2018; Price et al., 2016). Low fidelity rates were indicative of reduced effectiveness of Safewards (Price et al., 2016). Rates of containment were measured using the PCC in three studies (Bowers et al., 2015; Davies et al., 2020; Price et al., 2016). Reduction in rates of containment post-Safewards implementation was statistically significant in five studies (Baumgardt et al., 2019; Bowers et al., 2015; Davies et al., 2020; Fletcher et al., 2017; Stensgaard et al., 2018). Experience of safety was measured with the EssenCES in three studies (Cabral & Carthy, 2017; Hottinen et al., 2020; Maguire et al., 2018) and Likert scale in two studies (Fletcher, Buchanan-Hagen, et al., 2019; Fletcher, Hamilton, et al., 2019). Staff and/or service user experience of safety improved in three studies (Cabral & Carthy, 2017; Hottinen et al., 2020; Maguire et al., 2018). Within the qualitative studies, three themes were identified (a) therapeutic hold cohesion, support and the environment; (b) conflict containment and the experience of safety; and (c) the complexities of adapting and embedding change. Mixed-methods studies showed a reduction in conflict in three studies and containment in five studies. Participant experience of safety increased in four studies. Contrastingly, one study showed statistical significance in conflict reduction and three studies reported no statistically significant containment reductions.

Ward-Stockham et al. (2021) critiqued that data on attendance rates and training and staff professions were not reported in most of the studies. The researchers identified that the fidelity checklist is a subjective observation tool that is subject to bias. Most studies that measured fidelity did not report on it, in their studies. The results, while promising, were determined by the researchers to present difficulties in identifying a causal relationship between Safewards and reductions in conflict and containment. This is due to discrepancies in demographic variances, study methods and study timeframes. The researchers recommend stronger and more vigorous studies are undertaken on the effect Safewards has on rates of conflict and containment. It was acknowledged that there is a lack of literature on service user perspective and a high number of inpatient adult services, limiting most of the data to staff perspective from adult inpatient wards. Four recommendations for future practice are identified, (a) more rigorous comparison and analysis studies are used; (b) identification of interventions leading to specific outcomes and their individual effectiveness; (c) further analysis of service user and carer preferences to Safewards interventions and alternative restrictive practices; and (d) testing the validity and reliability of the Safewards fidelity checklist for accurate measurement of intervention implementation and engagement (Ward-Stockham et al., 2021).

In additional to the literature reviews, Gerdtz et al. (2020) outlines a protocol of a mixed-methods scoping review to describe (a) Safewards interventions; (b) how Safewards interventions have been implemented in healthcare settings; (c) outcome measures used to evaluate the effectiveness of Safewards; and (d) barriers and enablers to the uptake and sustainability of Safewards. This review will be useful for services implementing Safewards and aims to provide a foundation for further research and review of the Safewards model effectiveness.

Critical review

In one of the few critiques of Safewards, Kennedy et al. (2019) reviewed the Safewards model and is the only published literature review to do so from the perspective of service users. The researchers acknowledged the potential that mental health hospitals have to be sanctuaries and their paper aimed to identify how aspects of the Safewards model and interventions can be enhanced and implemented to enable people to experience hospitals as a sanctuary. The researchers discussed sanctuary trauma and sanctuary harm, events of inpatient trauma, and acknowledged Safewards aim to reduce restraint and seclusion, which can reduce inpatient trauma, but say that more can be done to deliver a truly safe ward. Kennedy et al.'s (2019) study focuses on the 10 Safewards interventions and propose an additional five based on lived experience.

Collaboration with service users in designing and applying the 10 Safewards interventions (particularly clear mutual expectations) was a recurrent theme in Kennedy et al. (2019). The need to acknowledge and prevent the power imbalance and the potential for staff to breach service users' rights and dignity was clear within the breakdown of Soft Words and Talk Down interventions. Positive Words and Bad News Mitigation need to be applied through the person's unique experience and without assumptions. Because staff often already know personal information about service users, Know Each Other is more likely to benefit service users as they learn meaningful, yet not personal, information about staff to support feelings of safety on the ward. Mutual Help Meetings encourage people to give and receive support which builds a sense of community, but the meetings must remain structured or risk becoming an untherapeutic general ward meeting. Calm Down Methods must be carefully applied as to not condescend, minimise or invalidate the person or their distress. Service users have a right to feel and work through their emotions, which may include the use of sensory modulation tools. If service users experience distressing events on the ward Reassurance, through staff debriefing with affected service users, can be helpful. Staff must hold to the rationale of Reassurance, rather than it becoming a tick box practice. Kennedy et al. (2019) outline concern that Discharge Messages aren't being used for the correct purpose and may be appreciated for their presentation, rather than genuine messages between service users and could be taking the place of feedback systems that should already exist.

To harbour "kindness, compassion, care and accountability" Kennedy et al. (2019, p. 622) describe four additional interventions that the researchers claim is simple, time effective and achievable additions to the existing Safewards model. These four, are among others listed on Safewards (n.d.-c). First Things First direct staff to greet service users at the start of their shift, introduce themselves, welcome them and offer a compliment. Kennedy et al. (2019) believe this practice would support the feeling of safety in the ward and increase collaboration. Debrief the Patient follows an event of containment, where staff approaches the service user to apologise and ask for their perception of the experience. To support a continued therapeutic relationship, staff are taking accountability and identifying that it was an undesirable intervention for all involved. Expressed Care encourages staff to conclude interactions with an expression of care and like other interventions, supports feelings of safety for service users. Random Kindness, is about staff making at least two random acts of kindness each day, one to service users and one to staff. It can help service users feel seen and reconnects staff within a busy work environment.

In response to this literature review, the first matter is that the paper states that the researchers present five additional Safewards interventions, when they only detail the four discussed above. Safewards (n.d.-c) strongly recommends that the original Safewards interventions be implemented first, as the researchers know that the original interventions work based on best evidence and the further interventions suggested are not thoroughly tested. The experience in research on the Safewards model, the literature already indicates that implementing all 10 Safewards interventions is difficult, with some studies implementing less than 10 interventions and having low fidelity to the existing model. Introducing a further four interventions would likely compound this difficulty. Showing care, respect and kindness to encourage feelings of safety are underlying themes of the four additional interventions and these can already be seen within the original Safewards model. Several of the suggested interventions show overlap with the original interventions: First Things First links with Know Each Other; Debrief the Patient and Reassurance have similar purposes; Expressed Care and Soft Words have comparable goals. While there isn't research on the additional interventions, there is likely a point of saturation for interventions, at which any additional do not make any further change or difference to the ward culture. Future studies on additional interventions or exploring a point of saturation is recommended.

Mustafa (2015) published a critical letter claiming that the Safewards RCT lacked rigour despite being a randomised design. Mustafa explains that Bower's (2015) study is an example of an inappropriate application of RCT. Due to the UK's Department of Health's recommendation in policy for Safewards implementation and the staff interactions that occurred between the two groups, it is unlikely that the study had been blinded. An "observer bias – compounded by a "pioneer" effect" (Mustafa, 2015, p. 1907) may have impacted on the intervention group through application of co-interventions to reduce containment and an increased threshold for reporting events of conflict. Additionally, Mustafa predicted, by comparing the contrasting increasing fidelity results of researchers with the decreasing data returns of participants, that by using non-blinded assessors, they likely scored in favour of the intervention group. Mustafa questions how units with low fidelity scores (27%) and fewer than 50% of the data being returned in the outcome phase were still included in the experimental group. In summary, Mustafa felt that the Safewards RCT was not any more rigorous than conventional observational research.

Bowers (2016) published a letter of response to Mustafa's critique, responding to the two main criticisms of blinding and fidelity. While many participants did not understand the difference between control and experimental groups or could not identify which group they belonged to,

more participants did correctly identify themselves as belonging to the experimental group and Bowers acknowledges this as a potential source of bias. In terms of fidelity, Bowers (2016) felt that Mustafa ignored the inexact nature of the fidelity measures, which is visual evidence in the experimental group and was much easier to identity in the control group. Fidelity was positively supported by end of study questionnaires that were not discussed by Mustafa. Bowers disputes Mustafa's statement that their study is comparable to an observational study as, aside from fidelity measures, there were no observations in this RCT. Bowers (2016) also felt that many features of their study indicate a high degree of rigour, including large samples; experimental and control groups; randomised and blinded analysis; oversight by a trial steering committee; and reliable and valid outcome measures. Bowers (2016) concludes that the Safewards RCT findings need to be replicated, including through high quality RCT, a challenge in nursing, particularly in mental health due to the small number of academic researchers.

Whitmore (2017) published a response to Price et al. (2016), taking on their recommendations into a study within five forensic units in Canada and then comparing the results. Whitmore's (2017) Safewards evaluation included comparing conflict events (seclusion, restraint and absconding) pre- and post-Safewards implementation and a pre- and post-Safewards survey of staff perceptions of their day-to-day interactions. The evaluation was never intended for publishing and does not provide implementation information so was not included in the list of primary studies for this review. The researcher reported similar findings on staff perceptions to Price et al. (2016), where staff attitude remained a significant barrier: doubt occurred around the ability for the Safewards interventions to create change; belief existed that the interventions already occurred in daily nursing practice; "pessimism, misunderstanding and scepticism" reported by Price et al. (2016) was also found in Whitmore (2017, p. 3). Whitmore recommended that interventions are role-modelled by managers and charge nurses to overcome the staff attitudinal barriers found in their study, though the rigour of these recommendations is uncertain due to their limited reporting of results.

2.3 Discussion

This integrative review explored and evaluated the available literature on the Safewards model within the search period. Safewards generally appears to be effective in its impact on least restrictive practices, particularly in inpatient adult services, with reductions in conflict and containment rates and improved ward atmospheres. However, the limited and varied literature makes it difficult to determine if Safewards is the primary cause of these improvements.

The main limitations of the 21 studies included: (1) tangata whai ora voice was not captured; (2) short follow up periods; (3) not all studies implemented all 10 Safewards interventions; (4) small sample sizes; (5) some settings are perhaps not relevant to others; (6) some services already had low incidences of conflict and containment; (7) low response rate from tangata whai ora EssenCES; (8) short implementation timeframe and follow up period; (9) settings mostly limited to general mental health inpatient settings; (10) some studies had limited reporting of results. From these limitations, there are five key findings from this integrative literature review: (a) extent of implementation; (b) variable or non-use of fidelity checklist; (c) concurrent quality improvement schemes; (d) neglected service user voice; and (e) mixed evidence of effectiveness. These are expanded upon below, before identifying the research gap.

The extent of implemenation in studies varies. In many studies, not all ten Safewards interventions were implemented. Because Safewards is always evaluated as a model and not independent interventions, it is not possible to determine what interventions are the most effective. Implementation timelines differed also, with some interventions staggered, while others implemented all 10 Safewards interventions at once.

There was variable use of the fidelity checklist, generating issues in confidence in implementing of Safewards. Price et al. (2016) saw low staff engagement and subsequently low fidelity rates and also faced negative staff attitudes. Literature shows that whilst Safewards interventions are feasible, they are not necessary universally accepted by staff. Well planned implementation, adequate training and the backing of management was shown to reduce staff resistance to the Safewards model and improve fidelity to the interventions. Sufficient training to support staff understanding and the allocation of champions was a recurring recommendation.

Because inpatient units are often looking to improve, there are often concurrent quality improvement schemes co-occurring. Safewards is a good example of a complex intervention where it's difficult to create laboratory-like conditions, that is, implementation without influence of extraneous factors. It is identified within several studies that other variables may be impacting on the results, such as simultaneous interventions or initiatives, an example is goals to reduce and eliminate restrictive interventions. This is predicted as an issue for this study as Te Whatu Ora are already prioritising seclusion reduction, so Safewards will not be the only intervention impacting on its reduction. Six Core Strategies (Te Pou, 2020b) is an effective innovation focused on seclusion and restraint reduction at an organisational level. Seclusion and restraint are two of a

number conflict and containment measures, and should not be addressed in isolation. Safewards is distinct from the Six Core Strategies whereby it packages together a model of care for mental health staff to prioritise therapeutic engagement, person-centred care and least restrictive practice. By addressing all conflict and containment measures collectively, rather than focusing on seclusion alone, Safewards presents a more cohesive and effective strategy for enhancing direct patient care.

Most of the Safewards data is staff perspective and there is an absence of the service user voice. It was a clear finding of this literature review that further studies on service user perspective are required to support the Safewards model. Safewards supported service users to feel more positive; safer and connected on the ward; and they felt that the model was effective in reducing aggression. Indigenous people and ethnic minorities, who are often overrepresented in services and have poorer health outcomes, are not discussed in international studies. Dawson (2020) highlighted the importance cultural adaptation of the Safewards model for Māori and the need for specific research and adaptation of Safewards for the New Zealand context. Utilisation of a co-design approach with staff, service users and their carers were identified to develop Safewards, including altering the language, to support acceptance of the model in services.

Overall, there is evidence that Safewards may be effective in its aims. The literature on the Safewards model remains limited but has shown the interventions to be feasible and positively impact least restrictive practices. Safewards has been implemented within a range of hospital settings, however, the literature remains mostly limited to inpatient adult services. Most adult services saw a reduction in rates of conflict and containment; improved staff attitude; or more therapeutic ward atmospheres. Not all forensic settings saw statistically significant reductions in conflict and containment. While it is positive that there has been some increase in the body of Safewards literature, the varying demographics; hospital settings; study methods; and timeframes, limit the ability to evaluate if Safewards is the primary cause of the reductions of conflict and containment rates. No real long term Safewards studies exist and no long term results have been published. This gap in literature means that it is unknown if initial effects of Safewards are sustained. This is not a gap in literature that will be addressed in this research.

Research gap

Despite Safewards literature being published since 2014, there is a significant gap in literature with a lack of service user perspective. Literature is centred around staff and researcher evaluations of primary and secondary outcomes. Few studies include service users in design or implementation and little report on experiences. There is also a gap in literature of studies set in New Zealand. This

study aims to address these gaps by exploring tangata whai ora and staff perspectives and developing a Safewards model to fit the New Zealand context.

Chapter 3: Methodology

Research is seeing what everybody else has seen and thinking what nobody else has thought

Szent-Györgyi 1893-1986

This methodology chapter discusses the frameworks and philosophical commitments that underpin this research before outlining the research design in chapter four. This is a doctorate with publications and includes two published papers and one which is under review. Because of the limitations placed on methodological considerations in journal articles, the included publications provide only an overview of the methods used in each study. Consequently, this chapter explores methodological issues pertaining to the whole thesis. This methodology explores the methodological issues underpinning this research. Existing Safewards literature is usually descriptive in nature and rarely provides in-depth discussion of methodological issues. This chapter begins with a cultural positioning, followed by discussion of the origins of participatory action research (PAR), before moving into a discussion of the elements of the methodological process underpinned by participatory action research. Subsequent sections expand the research process, discussing: epistemology; ontological and theoretical perspectives; before outlining research paradigms. Finally, this methodology converges on the choice of mixed-method research (MMR).

3.1 Cultural positioning

This research is significant for Māori, who in addition to being overrepresented in inpatient services, are disproportionally affected by conflict events and aversive interventions such as restraint and seclusion (Ministry of Health, 2021b). The Health Research Council of New Zealand (2010, 2019) wants to build Māori health research capacity, thereby supporting the advancement of whānau ora, enhancing service delivery for Māori and ultimately leading to better health outcomes for whānau. Kaupapa Māori research principles outline that research is undertaken by Māori researchers who are working within Māori-led team (Haitana et al., 2020). This supports the Kaupapa Māori theory of "by Māori, for Māori, with Māori" (Wilson et al., 2022, p. 382). It is important to note that this study is not Kaupapa Māori research, which would not be possible with my cultural position, but is informed by cultural consultation and nursing commitment to cultural safety and Te Tiriti o Waitangi. Māori participation is a principle of Te Tiriti and is prioritised alongside the Te Tiriti principles of protection and partnership. This cultural positioning is

consistent with the involved stance of the researcher in PAR. Participation is a key element of action research which is explored in depth below.

3.2 Origins of participatory research

Participatory research is an umbrella term for research methodology that prioritises a philosophy of inclusivity and engaging key stakeholders in the research process (Macaulay, 2016). Of pertinence to this study is participatory action research (Cargo & Mercer, 2008), from origins that can be traced back to social action research and emancipatory philosophy (Macaulay, 2016). Lewin's (1948) early action research in the United States and America and the United Kingdom introduced a research model of ongoing inquiry, action and evaluation, that was conducted with or by marginalised groups, rather than on or for them as was conventional (Macaulay, 2016). Lewin's approach to action research aimed to empower and promote social equity by emphasising the collaboration of all individuals (Macaulay, 2016).

In 1970 Freire (2020) suggested that individuals should not be viewed merely as passive subjects of study but as active participants in inquiry, capable of identifying their own needs to enhance their lives. Researchers and global institutions, such as United Nations Educational, Scientific and Cultural Organization (UNESCO) and the World Bank, applied Freire's concepts to collaboration with marginalised communities, aiming to produce evidence that could influence policy reforms and secure essential funding (Macaulay, 2016). During this period, research led by community members was predominantly qualitative, with minimal academic engagement (Macaulay, 2016). Consequently, participatory research was inaccurately labelled as a qualitative method and faced criticism for being perceived as less rigorous, largely stemming from these community-driven initiatives (Macaulay, 2016).

The next important stage of the history of participatory research was when health care researchers began adopting it's methodologies in the early 1990s (Macaulay, 2016). Many early researchers from this group were family physicians practising within Indigenous North American communities who were exhausted from previous 'helicopter' researchers not working in partnership with them (Macaulay, 2016). Helicopter research refers to conducting field studies, often in poorer communities, without considering the local context or collaborating respectfully with the community to gather data; a form of scientific colonialism (O'Grady, 2022). A resulting document, capturing rich discussions and recommendations for equitable research partnerships was published by North American Primary Care Research Group (1998). Growth continued, particularly from the early 2000's where there was a growing recognition that participatory research: reinforces the

ties between academics and communities; guarantees the suitability of research inquiries; boosts the capacity for data gathering; analysis and understanding; reduces the adverse or stigmatising impacts of research on stakeholders; and improves study recruitment, longevity and expansion (Macaulay, 2016).

Although participatory research aims to diminish the gap between the researcher and the subjects under study, the approach can be complex (Gray et al., 2000). Even when methodology is underpinned by participatory commitments, it is not possible to create a project that is fully participatory (University of British Columbia et al., 1995). Challenges detailed by Gray et al. (2000) include: sourcing funding; ongoing negotiation and the time, skill and detail that requires; reality of power imbalances; efforts required to obtain community input; development of guidelines; allowing shifts in agenda according to community needs; building and sustaining relationships; and increased time commitment for the research team.

3.2.1 Participatory action research

PAR develops participatory research further by using the knowledge and experience of community members to then take action and produce change (Cornish et al., 2023). PAR aims to understand and enhance the world through active transformation (Tekin & Kotaman, 2012). Action research is an approach that bridges research and practice (Moreno-Poyato et al., 2023). In PAR, researchers and participants undertake collaborative and introspective investigation to understand and improve the practices and circumstances they encounter (Tekin & Kotaman, 2012). Following the development of participatory research and Lewin's (1948) action research, PAR further developed in the early 21st century through radical social movements including: anti-colonial; anti-racist; gender-expansive; and climate activism (Cornish et al., 2023).

Unlike other methodologies, PAR doesn't adhere to a strict research design but uses continuous collaboration and interpretation to address a problem (Cornish et al., 2023). This can be time consuming and unpredictable, constituting one of the limitations of PAR (Baum et al., 2006). PAR is characterised by Cornish et al. (2023) as having four key principles: (a) authority of direct experience; (b) knowledge in action; (c) research as a transformative process; and (d) collaboration through dialogue. To assist researchers to follow this complex and changing framework, Cornish et al. (2023) present six building blocks of PAR (Table 3).

Table 3: *PAR building blocks*

Building blocks	**Goals**
Building relationships	Selection of a community setting
	Co-researchers agree to explore a feasible project
Establishing working practices	Agreed working and communication practices
Establishing a common understanding of the issue	Agreed statement of the issue and the project's aim or research question
Observing, gathering and generating materials	Agreed investigation methods
	Training in data generation methods
	Materials collectively generated and recorded
Collaborative data analysis	Agreed key findings and messages for different audiences
Planning and taking action	Identification of priorities for action
	A theory of change
	Assessment of options with strengths and weaknesses
	A community action plan

PAR is particularly relevant to this study, as I researched my own practice context, and the study required my colleagues to implement and evaluate changes in practice. This study progressed through phases mirroring the cyclical nature of PAR. Particularly significant was the ability to promptly share initial findings with participants, integrating them into practice, and adapting implementation based on feedback from both staff and tangata whai ora as the study advanced. The specific steps taken to implement PAR in this study are discussed further in chapter four, which outlines the research methods used in this study.

3.2.2 Applying PAR in research practice

Ward and Bailey (2013) applied participatory action research methodology to the management of self-harm in a women's prison. Ward and Bailey (2013) selected PAR because of its cyclical process and emphasis on collaboration. PAR also suited the study setting due to its approach of empowerment, which was intended to increase engagement (Ward & Bailey, 2013). Ward and Bailey (2013) followed Lewin's (1946) cyclical PAR process: (a) plan; (b) action; (c) and critical reflection (Figure 3, Adapted from Ward and Bailey (2013)).

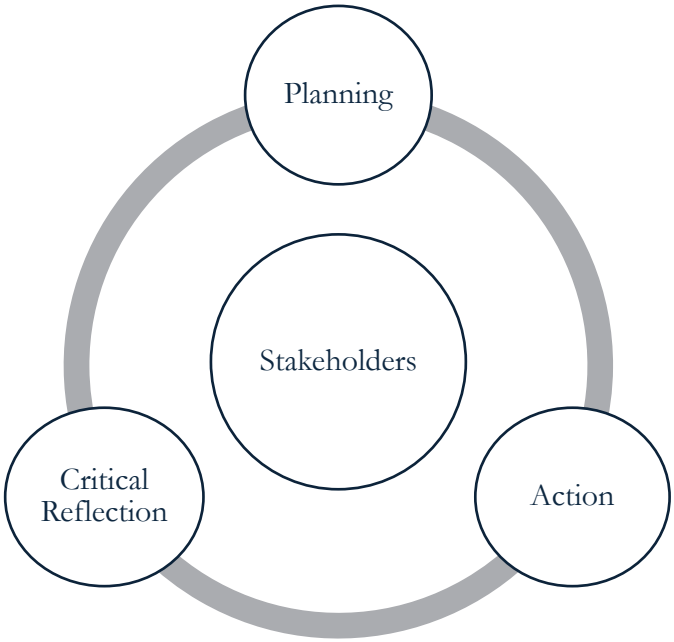

Figure 3: *The PAR cycle*

At the centre of this cycle are the stakeholders. Ward and Bailey's (2013) planning phases were made up of a literature review, review of baseline information on rates and methods of self-harm and associated costs and a review of staff training. Ward and Bailey (2013) designed a process map with stakeholders, including women prisoners and multidisciplinary team members. During the action phases, questionaries were completed by women with a history of self-harm and staff working with them (Ward & Bailey, 2013). Ward and Bailey's (2013) critical reflection stages analysed operating procedures, the understanding of self-harm and identified opportunities for support services for women and staff. PAR aligns with a critical framework, whereby researchers collaborate with communities to observe, question and endeavour to change existing conditions (Fine & Torre, 2021). The principles of the six building blocks of PAR, outlined by Cornish et al. (2023) and included above, in Table 3, can be seen reflected in the methods of Ward and Bailey, (2013). Through successful implementation of the PAR approach, Ward and Bailey (2013) found a willingness of women and staff to engage and use their lived experience to improve guidance, policy and introduce new services. The outcome of PAR was constructive and relevant action (Ward & Bailey, 2013).

3.3 Research process

In the current study, the research process consisted of four key elements, with each one shaping and guiding the subsequent step: (a) epistemology; (b) theoretical perspective; (c) methodology; and (d) methods (Crotty, 1998). The following section will discuss the first three elements of this

process and the final element, methods, will be discussed in detail in chapter four. The discussion of the research process will define and discuss the theoretical concepts underpinning the research, specifically the epistemological and ontological positioning of PAR, before outlining the theoretical perspective.

3.3.1 Epistemological perspective

Epistemology is "a way of looking at the world and making sense of it" (Al-Ababneh, 2020, p. 77) There are three major models of epistemology: objectivism; subjectivism; and constructionism (Al-Ababneh, 2020). Each perspective offers different views on the nature of knowledge and how it is acquired (Al-Ababneh, 2020). Objectivism and constructionism are two major perspectives that as Burke (2020) describes both maintain that reality (world and meaning) exists independent of our own experience. Objectivism believes that due to coming from different backgrounds we all begin with our own, different perspective of the world which can be incomplete or biased (Burke, 2020). Objectivism believes that this initial knowledge needs correcting and completing (Burke, 2020). Subjectivist epistemology holds the position that knowledge is inherently subjective, dependent on personal experiences and interpretations (Al-Ababneh, 2020). With subjectivism, understanding each person's unique perspective is important (Moss, 2018).

There have been ethical concerns raised in previous literature about how the objectivity of the researcher is protected in subjectivism. A fitting example is Wood and Kahts-Kramer (2022) and their advice for ethics applications for community-based research. Community-based research often requires non-traditional paradigms, including participatory research and action research, that prioritise working in partnership, subjectivity and centrality of the relationships that ethical applications can impose on (Wood & Kahts-Kramer, 2022). Some of the impositions Wood and Kahts-Kramer (2022) reflected on were experienced in the ethics application of this study, whereby the ethics committee contended with my central position as a practitioner researcher, and were concerned about potential bias that had in fact been designed into the study. Conventional scientific research necessitates absolute objectivity from the researcher, while participatory approaches involve collaborative research designs with stakeholders impacted by an issue, aiming to instigate change through systematic inquiry (Wood & Kahts-Kramer, 2022) In PAR, the researcher's perspective is viewed as a strength rather than a limitation as the approach recognises the importance of actively involving individuals who have lived experience with the subject matter to produce meaningful results (Lenette & Lenette, 2022). Translating these theoretical findings into action requires academic and service partners working together, engaging in critical reflection on their emotions, assumptions and experiences (Wood, 2021).

Constructivism is a popular approach to take with nursing studies (Mohajan & Mohajan, 2022). Constructivism can be considered at the higher cognitive end of the epistemological spectrum where, although we come from our own background experiences and these perspectives impose meaning onto the world, there is no single correct meaning of the world to be learned (Burke, 2020). This means constructivism acknowledges that knowledge is constructed through social interactions and experiences (Crotty, 1998). It emphasises the importance of multiple perspectives and the active involvement of participants in generating knowledge. Constructivism highlights the subjective connection between researchers and participants, emphasising the collaborative process of finding meaning (Hayes & Oppenheim, 1997). Researchers are integral to this research process, rather than detached observers, and their values unavoidably shape the research process and outcomes (De Laine, 1997).

My intimate familiarity with the clinical context of this study and my central positioning as a nurse practising in the study setting, were critical aspects of this research process. Armed with this contextual knowledge, I was able to lend support to crucial aspects, such as facilitating focus groups, shaping the study's design, involving multidisciplinary team members, networking with the advisory panel and analysing gathered data. My pre-existing relationships with staff members played a pivotal role, as relationships are central to PAR (Cornish et al., 2023). These pre-established connections fostered an environment conducive to open and honest communication that optimised communication (Abayneh et al., 2022). This pre-established rapport not only facilitated the research process but also contributed to the overall authenticity of the feedback. My genuine desire to assist my colleagues and contribute to the collective success of the setting manifested in a commitment to reducing conflict and containment. This motivation was as a driving force for me throughout the study, as we worked as a team to try and make the ward a safer environment for all. I was the opposite of a detached observer. I acknowledge the possibility of bias with a subjectivist approach, and these issues are addressed in 3.4.2.

3.3.2 Ontological perspective

Ontology is a branch of philosophy focused on understanding the fundamental nature of reality and investigating the existence of various phenomena (Hoffman et al., 2020). Three fundamental ontological stances are examined in this context: (a) realist; (b) rationalist; and (c) relativist. Philosophical realism holds, broadly speaking, that entities have existence regardless of whether they are perceived or theorised about (Phillips, 1987). Although a common perspective amongst scientists, philosophical realism does not feature prominently in methodological discussions of social science research, which are most likely to be anti-realist in nature (Haig & Evers, 2015).

Rationalists typically reject the idea that reality is entirely subjective or dependent on individual perception (Markie & Folescu, 2004). Instead, they argue that there are objective truths that can be apprehended through rational thought, independent of sensory experience (Markie & Folescu, 2004). Finally, relativism is a viewpoint asserting that reality is fundamentally shaped by context and subject and it stands as one of the popular contemporary philosophical beliefs (Baghramian & Adam Carter, 2020).

Approaching this study with a relativistic lens, allowed me to understand and respect the diverse backgrounds of participants, including their cultural, social and individual perspectives. I recognised that beliefs vary across cultures; consequently cultural competence was an integral part of this relativist approach. Cultures and different belief systems can also impact on the response to ethical dilemmas, including those often faced in nursing practice. An example of this are the different staff responses seen towards managing conflict that are influenced by their previous experience and belief systems. To understand individual's responses to situations, the research prioritised person-centeredness. Communication, both verbal and non-verbal, is a key part of being person-centred and demonstrating effective communication within the study context. Adapting language to fit the study context was important to support participants' understanding and gain their respect. Language adaptations within this study are expanded upon in the findings chapter of this study. In this setting, the advocacy for reducing containment measures towards Māori was prioritised. Adapting language to the setting also supported engagement and acceptance of practice change. A relativist ontological position guided my work by allowing me to recognise the diverse experience of participants and to delve deeper into the understanding of the study setting and the individuals within it.

3.3.3 Theoretical perspective

In healthcare research, the correct application of theories has the potential to enhance researchers' capacity to gain insights from others and contribute to better outcomes (Mackert et al., 2014). Utilising nursing paradigms, theories and models is essential for shaping policy development, implementation and sustainability (Ortiz, 2021). Ortiz (2021) believes it is crucial for nurses to establish connections between health system policies and nursing concepts to effectively guide their practice. This study was guided by several theoretical influences, rather than one specific framework, the main influences being theory of change and organisational theory, and how they empower participation and support change.

A theory of change is tailored to a specific project and associated to its evaluation (Reinholz & Andrews, 2020). Reinholz and Andrews (2020) explain that a theory of change conveys the fundamental basis of a project, which supports its planning, implementation and evaluation. Theory of change uses the desired outcomes of a project to guide future project planning, implementation and evaluation (Reinholz & Andrews, 2020). Reinholz and Andrews (2020) differentiate this from change theory, which extends beyond individual projects. The development of a theory of change follows a defined process. Outlined by Reinholz and Andrews (2020), it begins with recognising the context in which change will be attempted and identification of factors that may influence implementation. Then a backwards process occurs where the team focuses on intended outcomes and plans how they will achieve them (Reinholz & Andrews, 2020). Theory of change specifies the interventions that will be implemented to achieve short and long term goals (Reinholz & Andrews, 2020). Each goal has a set of indicators to identify whether goals will be achieved (Reinholz & Andrews, 2020). Lastly, using literature and prior experience, Reinholz and Andrews (2020) outline that the research team evaluates the theories behind this change process.

In this study, the awareness, desire, knowledge, ability and reinforcement (ADKAR) model in change management was utilised. This model helps organisations make change, by supporting the individuals experiencing it (Angtyan, 2019). The ADKAR model considers that change has only occurred, when each person involved has been able to transition successfully (Angtyan, 2019). ADKAR was developed by Hiatt (2006) and is made up of five components necessary for individual change, leading to organisational change: (a) Awareness of the need for change; (b) Desire to support and participate in the change; (c) Knowledge of how to change; (d) Ability to implement the change; and (e) Reinforcement to sustain the change. Each of these five components are made up of several sequential, practical factors that change managers work through (Angtyan, 2019). While other change models describe what needs to be done, ADKAR describes the outcomes: awareness; desire; knowledge; ability; and reinforcement (Angtyan, 2019). Therefore, change implementation has two steps to achieve, change management planning and the transition to new practices (Angtyan, 2019). This model links in well with the person-centred and action research philosophies used in this research.

Organisational theory is concerned with the study of organisations and organising, including their design, relationship and structures (Burrell, 2022). Historically, improvement and the need for change within an organisation was often undertaken from the perspective of management and was rarely seen from the viewpoint of members at the bottom of the hierarchy (Burrell, 2022). Being

set within a large hospital organisation, organisational theory was important to apply in this study to: understand the organisations' structures and processes; predict and explain behaviour; identify barriers and enablers; optimise implementation strategies; and evaluate outcomes. Change is considered a significant aspect of organisational operations (Lewis, 2020), with the perspective most relevant to this study being organisational change. In the healthcare sector, there is an increasing recognition that the well-being of healthcare workers, service user outcomes and organisational change are interconnected (Montgomery et al., 2019).

Changing organisational culture is influenced by its leadership (Montgomery et al., 2021). Edgell et al. (2016) distinguish between management and leadership, stating that while management is often associated with administration and organisational control, leaders are admired for their contemporary thinking and hands-on, vision-driven approach. In the face of leader emergence, the role of management has gradually diminished (Leavitt, 2005). According to Edgell et al. (2016, leadership represents one form of managerialism, while Leavitt (2005) argues that individuals can embody both managerial and leadership roles within hierarchical systems. Transformational leaders foster innovation in organisations through inspirational, motivational, and individualised behaviours, essential for organisational change and problem-solving (Afsar & Waheed Ali, 2020). While transformational leadership correlates with innovative work behaviour, employee motivation plays a crucial role (Afsar & Waheed Ali, 2020). Leithwood and Jantzi (2006) found that transformational leadership influences employees' motivation to change their approaches, engage in learning, exert extra effort at work and introduce new ideas. Leaders can enhance employees' belief in their capabilities through feedback-driven perceptions of success, observation of role models and verbal encouragement (Leithwood & Jantzi, 2006).

Transformational leadership focuses on inspiring and empowering others to achieve higher levels of performance and fosters a culture of innovation and growth (Abayneh et al., 2022). Throughout this study I worked to embody transformational principles to drive positive change within the study setting. By leveraging my existing leadership position, I feel I was able to motivate colleagues through my actions, role-model desired behaviours, provide constructive feedback and create a conducive environment for organisational change. I felt that from this existing relationship, staff were more likely to listen to my teaching and feedback and trust the implementation process. I think that staff felt safe providing feedback, knowing that they could do so honestly and without judgement, which helped to improve study methods, and for them to feel involved. I empowered

staff to participate right from planning phases, so that the project felt like a collective team effort and not a managerial direction.

3.3.4 Research paradigms

Research paradigms are an extensive belief system, worldview or framework that directs both research and its application (Baghramian & Adam Carter, 2020). This section will consider several key paradigms before outlining the approach taken for this study. Positivism's purpose is to show objective and scientifically applicable facts by utilising empirical observation and measurement (Junjie & Yingxin, 2022). Positivism, however, criticises action research for its lack of objectivity (Tekin & Kotaman, 2012). By contrast, post-positivism challenges the assumptions of positivism and strives to comprehend social phenomena in their entirety, acknowledging and embracing their inherent complexity (Tekin & Kotaman, 2012). Junjie and Yingxin (2022) differentiate that interpretivism is centred on comprehending subjective meanings and the socially constructed nature of reality. Interpretivism has a more in-depth focus on understanding specific contexts, believing that humans cannot be studied in the same way as physical phenomena due to their complexity (Alharahsheh & Pius, 2020). Also aligning with a subjective and socially constructed research paradigm, constructivism is defined by Olsen and Pilson (2022) as being made up of two theories: (a) Sechrest's (1963) personal construct highlights the individual's subjective perception and understanding of the world; and (b) Berger and Luckmann's (1966) social constructionist theory underscores the impact of societal norms, cultural context and the social climate on shaping perceptions of reality. Constructivist research takes a bottom up approach, starting with individual viewpoints and then progressing towards overarching patterns and revealing comprehensive insights (Creswell & Clark, 2017). Finally, the pragmatist paradigm integrates both qualitative and quantitative research methods, as it merges positivism and interpretivism (Moss, 2018). This merging of paradigms is discussed further under the methodology subheading. Pragmatism aims to address the difficulties with positivist, interpretivist and constructivist paradigms by bridging the gap between the scientific and structuralist approach of traditional methods with the naturalistic approaches and flexible mindset of contemporary methods (Creswell & Clark, 2017).

This study employed a pragmatic-constructivist paradigm. In this situation, pragmatic-constructivism is appropriate because it involves blending facts and possibilities to form a collective understanding among participants (Lueg & Janiak, 2015). This is the reason why Lueg and Janiak (2015) applied a pragmatic-constructivist approach to explore how participants in their study could use Management Control Systems for risk management. The flexibility of this approach allows researchers to transition between the two paradigms to attain research objectives

and create change (Moss, 2018). The pragmatic-constructivist paradigm, originating from Dewey (1938) and Piaget (1952), suggests that individuals acquire knowledge through direct engagement with real-world situations, actively forming logical frameworks based on observations of cause and effect. One notable aspect of the pragmatic-constructivist approach is its emphasis on active involvement in the research project within the real-life contexts of the individuals participating (Henriksen, 2004). This study adopted a pragmatic-constructivist stance as it acknowledges that knowledge is constructed through social interactions and experiences. The pragmatic-constructivist paradigm reflects the epistemological approach of constructivism and the ontological positioning of relativism, adopted for the study. It emphasises the importance of multiple perspectives and the active involvement of participants in generating knowledge. Linking well with PAR principles, knowledge is seen as situational and subjective; influenced by the social and cultural context in which it is produced. The next section will now outline how the philosophical commitments outlined are reflected in the design of this study.

3.4 Methodology

The researcher seeks to acquire understanding through applying a specific methodology to guide the research process (Nasution, 2018) Methodology provides a structured approach to gaining knowledge (Nasution, 2020). Nasution (2020) explains that the term methodology comes from the Greek words, metha (through), hodos (way) and logos (science). Therefore, methodology is the knowledge needed to identify the truth and understand it. Methodology is the philosophy of method and is important in justifying why the chosen philosophical commitments are most appropriate whilst helping to validate the study findings and level of applicability (Currie et al., 2003). Positioning the research question within the pragmatist-constructivist paradigm, a mixed-methodology was considered the best fit for this study. MMR complements conventional qualitative and quantitative study designs by seamlessly integrating the two methods within a single research study (Creswell & Plano Clark, 2023; Dawadi et al., 2021). Qualitative and quantitative methods have different philosophical underpinnings that are discussed below.

Qualitative research methods are used in a range of disciplines, including nursing, and its advancements have allowed the collection and analysis of narrative data from a variety of sources including focus groups, and visual and digital materials (Flick, 2022). Qualitative research has one or more broad and revisable research questions and uses interviews, focus groups or observation to answer these questions (Denny & Weckesser, 2022). The collected data is coded as words and phrases (Williams et al., 2021). Qualitative research focuses on subjective experiences to

understand social phenomena and build theory and often employs an inductive approach (Scharrer & Ramasubramanian, 2021). Scharrer and Ramasubramanian (2021) differentiate qualitative from quantitative research, which applies numerical tools and approaches to gather data to measure variables, test hypotheses and explain relationships. This approach is usually deductive and emphasises numerical data, categorisation and objectivity (Scharrer & Ramasubramanian, 2021). Quantitative research is different from qualitative research, in that it uses a narrow and set research question (Denny & Weckesser, 2022). Instead of words, data and codes are expressed as numbers (Williams et al., 2021). Quantitative research is about quantities, measurement, explanation and prediction, making it almost the contrast of qualitative research (Williams et al., 2021). MMR, as the name suggests, mixes both of these approaches either simultaneously or at different stages of research to explore and evaluate issues and to bring about social change (Scharrer & Ramasubramanian, 2021). In the context of MMR, a combination of qualitative and quantitative approaches is used to answer research questions (Bans-Akutey & Tiimub, 2021).

MMR is becoming widely used in mental health nursing research (Kettles et al., 2011). Two recent examples of MMR use involved online mental health tools. One used online forums to explore rural resilience (Steiner et al., 2023). A second evaluated an online mental health prevention program for secondary school students (Bailey et al., 2023). Dawadi et al. (2021) offer six reasons for choosing MMR: (a) broadening the scope of the study; (b) recognising and capitalising on the value and interaction between qualitative and quantitative approaches; (c) addressing the epistemological disparities inherent in both methods; (d) obtaining more rigorous conclusions by maximising strengths of one method to offset the weaknesses of another; (e) validating findings through data triangulation; and (f) reaching conclusions that are both more effective and refined. MMR was chosen for this study as there was a need to draw on measurable phenomena, including rates of conflict, containment and ward atmosphere. Collecting experiences of different groups of participants was also central to the study, therefore a positivist, interpretivist or a sole constructivist paradigm would not be adequate.

3.4.1 Research design

Research design describes the methodological steps taken to perform a study (Creamer, 2018). Kettles et al. (2011) outline four main MMR designs: (a) convergent parallel; (b) embedded; (c) explanatory; and (d) exploratory. The convergent parallel design, once called the triangulation design, is widely regarded as the predominant method in MMR (Kettles et al., 2011). Data triangulation in research strengthens both validity and credibility of results, and is compatible with MMR (Bans-Akutey & Tiimub, 2021). Triangulation methods explain how a researcher

strategically incorporates multiple approaches to data collection and critically analyses findings (Fusch et al., 2018). An embedded design involves one dataset playing a secondary or supportive role in a study, while another dataset serves as the primary type of data (Kettles et al., 2011). Embedded designs integrate both research quantitative and qualitative methodologies from the start (Kettles et al., 2011). Explanatory design involves two phases of MMR, wherein initially one type of data, such as quantitative, is collected and the researcher supplements these results with a second form of data, such as qualitative focus groups to understand the findings (Kettles et al., 2011). Finally, exploratory design involves collecting different types of data in two distinct phases, with each type being collected separately and sequentially (Kettles et al., 2011). In this study data triangulation was undertaken to enhance validity and credibility so that the findings could be used to accurately inform practice change. Comparatively, Sands (2007) used a convergent parallel design to develop a model of mental health triage for practice; drawing from MMR (questionnaire, focus groups and interviews) to create the model.

The design of this research involved three phrases which can be summarised as: (a) design; (b) implementation; and (c) evaluation. This design was intentionally similar to the nursing process, a systematic guide to patient-centred care and problem solving with five sequential steps: (a) assessment; (b) diagnosis; (c) planning; (d) implementation; and (e) evaluation (Potter et al., 2021). Within the three phases of this study, there was an assessment of current practice, the identification of areas for improvement, planning the model, implementation and finally, evaluation of the process and outcomes. Phase one designed a New Zealand Safewards model (Appendix U: New Zealand Safewards model) through a comprehensive literature search and most importantly, co-design with key stakeholders and focus group participants. It also collected baseline quantitative data. Guided by the outcomes of phase one, phase two involved a staged implementation of the ten adapted Safewards interventions that incorporated action and translational research. Quantitative data were collected throughout this phase, in particular, the PCC and EssenCES. Finally, the third phase involved repeating focus groups with staff and tangata whai ora, supporting patient and person-centeredness, to learn from their experiences of the Safewards model implementation. In addition to this qualitative feedback, evaluative quantitative data were collected.

A double-blinded randomised controlled trial (RCT), such as Bowers (2013) undertook in his foundational study of Safewards, is often considered gold standard research (Grootens & Sommer, 2022). The rationale for not undertaking an RCT for this study was centred in the aspiration of

shared decision making for the adaptation and implementation of a New Zealand Safewards model. Grootens and Sommer (2022) outline some limitations to RCTs which have not been extensively discussed in previous literature. Of note, the authors discuss how RCTs blind participants to interventions which doesn't enable participant choice. Therefore, a conflict exists with the imperative of implementing 'gold standard' research methods and maximising consumer autonomy. The specific MMR methods of this study are discussed further in the chapter four outline of methods.

3.4.2 Reflexivity and reflection

Reflexivity in research involves introspectively analysing our own assumptions, beliefs and judgments, and conscientiously considering how these factors shape the research process (Jamieson et al., 2023). Jamieson et al. (2023) said that engaging in reflexivity prompts us to examine our identities as researchers, and how they impact our methodologies and interpretations. This study integrates the principles of PAR, emphasising reflexivity as a means to address bias by actively involving participants, challenging assumptions and promoting transparency and inclusivity throughout the research process. This section will note the ethical and methodological issues anticipated and explain how reflexivity was used to address these.

During this study, as the researcher, I assumed an active and integral role within the framework of participatory action research. As discussed above, action research involves researchers exploring their own institutions for change and improvement at a local level to inform changes in practice (Cohen et al., 2018). I was aware of this dual role and this had been built this into the design and worked to reduce bias. As a registered nurse, my professional background within the study setting provided a unique healthcare perspective to the study. Whilst studying full-time, I also remained employed part-time as a registered nurse (RN) in the setting during the study period, immersing myself in the day-to-day realities of the healthcare environment and the implementation experience. In addition to this immersive action approach, this part-time work also supported me financially.

I engaged in this research as an RN, with all the professional commitments and obligations that involves (New Zealand Nurses Organisation, 2019; Nursing Council of New Zealand, 2012), so that provided both an ethical framework and an insider perspective that informed the research. Professional obligations needed to be consciously managed whilst researching from an insider perspective. I needed to make sure I gave the right emphasis to specific perspectives, including my own and those of stakeholders, to make sure they reflected reality. I also needed to step back and

ask myself, based on my experience and the reported subjective experiences, what meaning to assign to results. In addition to self-reflection, I regularly reflected with a variety of in-service staff, including ward staff and managers, panel members, as well as my academic supervisors. Consistent with PAR methodology, my RN status was approached as a strength, if its potential limitations were managed.

Participatory research stands out for its capacity to address power imbalances and empower participants by involving them in decision-making processes throughout the entire research journey, from conception to implementation (McDonald, 2021). However, it is important to recognise that this relationship is not without its challenges (McDonald, 2021). As briefly mentioned in the above discussion of epistemology, the ethics application encountered a barrier in that the ethics committee felt I had the potential to influence findings because of my position within the research. However, I didn't want to be an outsider. Moreover, the suggested objective stance conflicted with my commitment to my dual, insider role to implement change at a local level. I wanted to influence practice by supporting the transition to lasting change. This is the power dynamic, where even as an accepted insider, I wanted to know something from my participants and because of that, needed them (McDonald, 2021). This is a power imbalance that existed across the research process (McDonald, 2021). Collaboration can help to identify power imbalances and reflective, professional practice can support ongoing relationships with participants (McDonald, 2021). Reflexivity can repair potential relationship tension or problems that may result from being an insider-outsider (McDonald, 2021).

In summary, my active participation, professional background, leadership experience and contextual understanding collectively underscored the significance of reflexivity in this participatory action approach. My motivation and pre-existing relationships further enriched the study, emphasising the collaborative nature of the research endeavour. My knowledge has improved through reflexivity and walking alongside participants. Reflexivity was used to maintain balance of theory, the developing Safewards model, results and my insight; learning that I will take with me after this study.

3.5 Research methodology summary

Led by a registered nurse employed within the study setting, this study is rooted in constructivism, using the connection between researcher and participants to create a collaborative process of change. This study is guided by diverse theoretical influences, encompassing participatory action

research that values partnerships for active transformation. The underpinning relativistic philosophy embraces person-centeredness and participant diversity. Theory of change, organisational change and transformational leadership were applied to empower participation and support change. Employing a pragmatic-constructivist paradigm, this research is complemented by both qualitative and quantitative research methods. To support the findings of this MMR, an organised approach to convergent parallel design was undertaken to support the study's validity and credibility. Structured into three distinct phases, the objective of this study was to ensure that the findings serve as a reliable foundation for informing practice changes.

Chapter 4: Methods

I can't change the direction of the wind, but I can adjust my sails to always reach my destination

Jimmy Dean 1928-2010

This mixed-method research (MMR) was undertaken in three distinct phases. Each phase of the research used the most appropriate methods to meet the research aims, as elaborated in the findings section of each manuscript within chapter five. A concise summary of the methods is provided below.

4.1 Research aims

This study aimed to design a Safewards model to fit the New Zealand context and implement it at the Waikato District Health Board (DHB) acute adult inpatient mental health unit. The study explored tangata whai ora and staff perspective of the developed Safewards model and whether rates of conflict and containment reduced after a period of implementation.

This research sought to address the following questions:

1. What adaptations does the Safewards model require to meet the cultural and practical needs of New Zealand adult inpatient services?
2. What are the perspectives of inpatient tangata whai ora and staff on their experience of the developed New Zealand Safewards model?
3. Do conflict and containment rates reduce after implementation of the New Zealand Safewards model?
4. What changes occur to the ward atmosphere after the Safewards intervention?

4.2 Study design

This thesis follows a three-phase design (Table 4).

Table 4: *Study phases*

Phase	**Implementation**
Phase one	*Staff focus groups.*
1. Design	Groups of staff by student researcher (three groups up to ten
Qualitative	people).
	Semi structured.
	Will contribute to model design and implementation (phase two).
	Māori focus group.
	Hui by kaitakawaenga. Safe space for Māori views.
	Tangata whai ora, whānau, relevant staff.
	Semi structured
	Will contribute to model design and implementation (phase two).
Phase two	Staff training days.
2.1 Pre-implementation	Baseline ward atmospheric scale survey EssenCES by staff and
Quantitative	tangata whai ora.
	Existing data collection (Datix incident reporting; restraint;
	seclusion; Releasing Time to Care; and PRN audit).
2.2 Implementation	Introduce two interventions each month at staff meeting and
Quantitative	supported by champions.
	Fidelity checklist monthly by external person.
	Patient-staff conflict checklist by shift lead at the end of each shift.
	Ward atmospheric scale monthly survey EssenCES by staff and
	tangata whai ora.
Phase three	Existing data collection (Datix incident reporting; restraint;
3 Post-implementation	seclusion; Releasing Time to Care; and PRN audit).
Mixed-methods	*Staff focus group.*
	Groups of staff by student researcher. Three groups of up to ten.
	Semi structured.
	Will contribute to future practice.
	Māori focus group.
	Hui by kaitakawaenga. Safe space for Māori views.
	Semi structured.
	Will contribute to future practice.

Phase one is the design of the Safewards model using qualitative data from staff and tangata whai ora focus groups. Phase one contributed to the design and implementation of phases two and three (Figure 4). Phase two is the design and implementation of the Safewards model from the qualitative findings of phase one. Phase three is MMR, using quantitative data to evaluate the Safewards model and qualitative data to gain staff and tangata whai ora feedback.

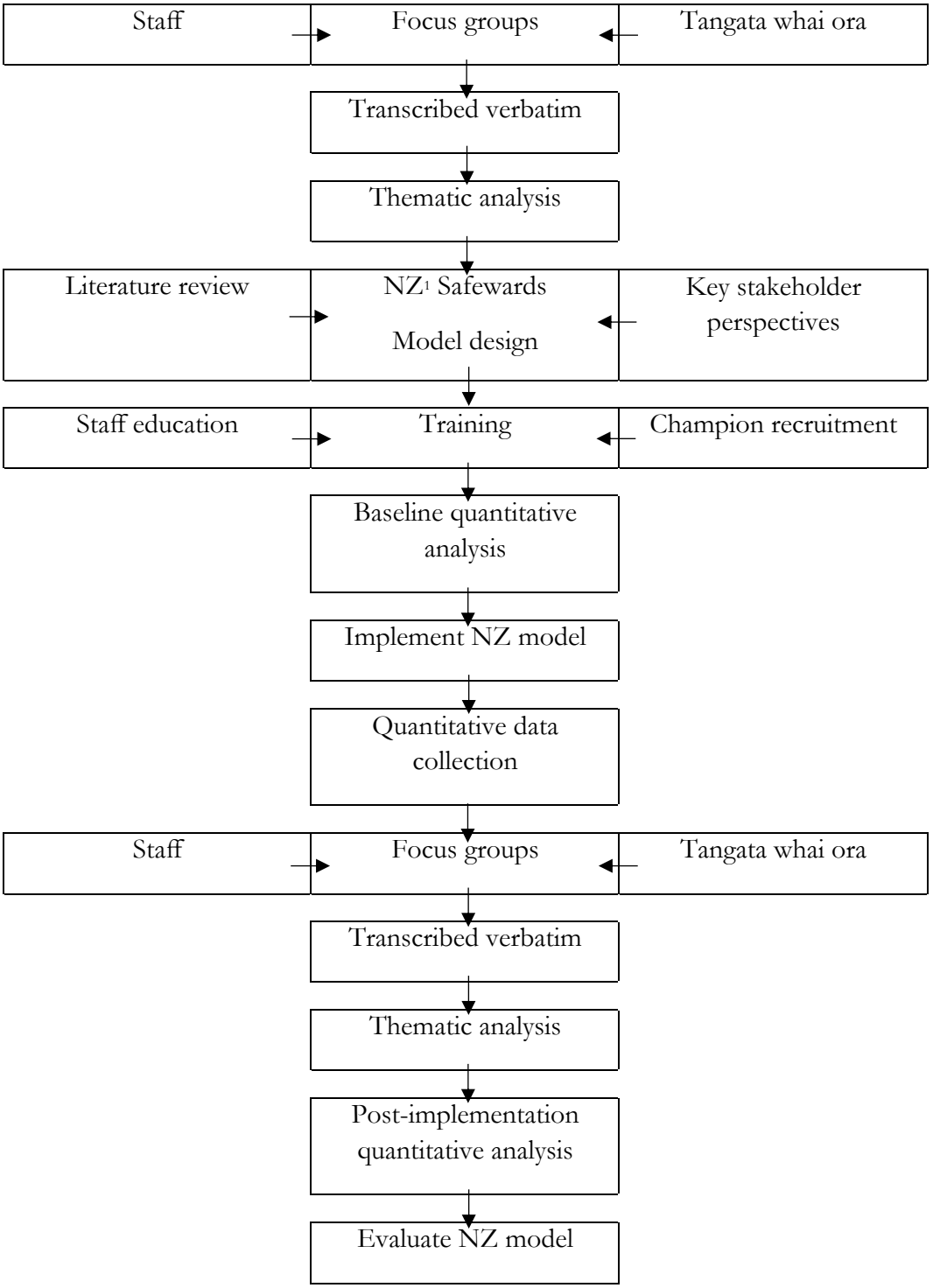

Figure 4: *Study design*

[1] New Zealand

4.2.1 Phase one

Recruitment

Staff participants were invited from approximately 30 current staff employed at the acute mental health unit at Te Whatu Ora Waikato. An email inviting staff to participate in the study was sent out by the ward administrator (Appendix K: Phase one staff email). At least 10 participants were intended to comprise the tangata whai ora focus group (outpatient or inpatient who had been on the unit within the last six months), with their whānau or current unit staff supporting this discussion. For staff and tangata whai ora recruitment advertisement posters were placed in the unit (Appendix I: Phase one focus group poster). Tangata whai ora were also approached by kaitakawaenga and-invited to take part in the study. Information sheets were provided to invited participants (Appendix M: Focus group information sheet).

Data collection

Phase one, the design phase, involved the hosting of four semi-structured focus groups, lasting a maximum of 90 minutes. There were questions and open discussion around what adaptions the model needed to fit New Zealand and the service (Appendix P: Focus group schedule). These groups were held in a meeting room within the mental health facility, but off the ward to reduce interruptions, support open communication and facilitate the attendance of inpatient tangata whai ora. Focus groups were designed to consist of three groups of up to ten registered (nurses) and unregistered healthcare workers (mental health assistants), managers (charge nurse and associate charge nurses) or treating team members (psychiatrist, registrar, house office). Staff focus groups were designed to be hosted by a consumer advisor and the researcher had a role in presenting the Safewards information, and otherwise took an observational role in this focus group. No consumer advisor was employed in the study setting at this time therefore, this study design aspect was not met. Staff turnover and funding were barriers to achieving this.

On 11/04/22 four staff attended the first focus group. This was made up of two registered nurses (RN), one mental health assistant (MHA) and one enrolled nurse (EN). On 13/04/22 five staff attended the second staff focus group. Two RNs, one EN, one activities facilitator and one kaitakawaenga participated in the focus group. The final staff focus group was held for managers on 14/04/22. Four managers attended, the current charge nurse manager (CNM), the recently resigned CNM and two associate charge nurse managers (ACNM). The managers attended separate focus groups to prevent power imbalance and allow their staff to openly discuss their perspectives. No members of the treating team (psychiatrist, registrar and social worker) attended.

All staff attended for the entirety of the focus groups. Light refreshments were provided and enjoyed as we spoke.

Tangata whai ora were protected from harm by gaining the consent of their consultant that they had the capacity to consent to participate in the research. This protected tangata whai ora by excluding those with acute symptomatology. Their whānau were also invited to attend the focus group to support them. Consent could have been withdrawn at any time. As a current registered nurse in the study setting, the researcher did not recruit tangata whai ora due to potential power imbalance. Recruitment was completed by either a consumer advisor or kaitakawaenga for Māori following participants expressing an interest in participation. The researcher had a role in presenting the Safewards information during the Māori focus group and was aware of the conflict.

The initial tangata whai ora focus group was held on 26/05/22. This was one month later than planned due to scheduling conflicts with kaitakawaenga. Three Māori, male tangata whai ora attended this focus group. Two additional tangata whai ora had consented to participate and were permitted by their psychiatrist as having capacity to consent, however they voluntarily exited the meeting room shortly after arrival. One Eastern European tangata whai ora did not feel that his English language was sufficient enough and the second, Māori tangata whai ora, did not provide a rationale. This focus group was opened by three kaitakawaenga with karakia and two kaitakawaenga stayed and supported the discussion of each of the 10 interventions. They helped tangata whai ora communicate when they were struggling to verbalise their opinion and experience. All three tangata whai ora attended the entirety of the focus group. Light refreshments were provided and enjoyed as we spoke.

Informed consent was gained through signed consent forms (Appendix Q: Participant consent form). A signed form from the psychiatrist showed capacity for tangata whai ora to consent to participate (Appendix O: Research capacity to consent). Written consent was sought prior to participation through the consent form. Associate charge nurse managers collected signed consent forms from the staff focus groups. The kaitakawaenga collected signed consent forms from participants of the tangata whai ora focus group. Participants were made aware of any potential risks and that they could withdraw at any time during the focus group however, participants were informed they couldn't withdraw any contributions they may had made up until that point, as their comments form part of the overall data. The ability to withdraw was reiterated in the opening of

the focus group. Focus group facilitators were required to sign confidentiality agreements (Appendix N: Research confidentiality agreement).

Consent forms, voice recordings, transcripts and any related notes, remained separated, stored appropriately and eventually safely discarded, to protect confidentiality. All electronic data were stored securely on a password-protected file and university computer with up-to-date virus protection which will only be accessed by the researchers for a period of five years following research completion. No information shared with supervisors is able be linked to the participants' names. Shared information was anonymised, including through pseudonyms. Digital deletion of electronic files and shredding of non-digital documents will occur after five years in accordance with the University of Waikato procedure for destroying confidential documents.

Data analysis

All focus groups were audio recorded and later transcribed. Participants were informed of this on the consent form and information sheet. Participants were given the option to choose transcription by the researcher only, or transcription by the researcher with Otter.ai. All responses transcribed in third party applications were kept secure, confidential and anonymous. Transcripts were reviewed by the student researcher, correcting any issues that arose through using a transcribing app including, multiple speakers, inaudible speech, accents and general errors. This qualitative data were then analysed using thematic analysis (Clarke & Braun, 2017). The findings of these focus groups informed the design of a New Zealand Safewards model used in phase two. Participants did not have to request information on outcomes of this study. A tick box on the consent form allowed participants to opt out of receiving the outcomes if they didn't wish to receive them. Thematic analysis methods are explained further in study two, chapter five.

4.2.2 Phase two

Pre-implementation

Phase two, the implementation phase, involved the preparation, education and staged implementation of the Safewards model. Phase two can be broken into two parts: pre-implementation and implementation. The first part occurred before the staged Safewards implementation where the Victorian Safewards preparation checklist was utilised (Victoria State Government, 2016) and Fletcher et al.'s (2021) readiness checklist were worked through. Then, baseline quantitative data on length of stay, staff turnover, restraint, seclusion and sample PRN was requested. There was in-service staff training held by the researcher. This was designed to be full day education that staff were to be released from the ward to attend. Due to the implications of COVID-

19, including staff illness and the need to avoid congregating groups of staff together, this was unable to be facilitated. Instead, training sessions were adapted to be short drop in sessions at handover times. Several 30 minute education sessions occurred over the period of a week. The charge nurse manager and associate charge nurse managers booked staff to attend these in-service training sessions and handed out resources. Staff who couldn't attend the in-service training were able to use provided orientation booklets and resources to educate themselves. Safewards Champions were planned to follow up the education session with train-the-trainer for any staff who need further education and support on interventions. All staff were offered the opportunity to be a champion of one Safewards intervention and could self-select the intervention based on a sign up form. A total of 20 staff, made up of registered nurses, enrolled nurses, associate charge nurse manager, mental health assistants, Māori clinical nurse specialist, kaitakawaenga and bureau staff members signed up to be a champion of an intervention. Staff volunteers spanned across the three different shifts. However, beyond signing up and initial orientation, the Safewards champion plan was not successful.

Implementation

The second part of phase two occurred during the staged Safewards implementation (
Table **5**). Two Safewards interventions were implemented each month over a 12-month implementation period, following the recommendations in literature for longer or staged implementation (Bowers et al., 2015; Fletcher et al., 2017; Lee et al., 2021). Interventions were introduced at monthly staff meetings, explained in monthly Safewards newsletters, emailed to all staff by an administrator and were planned to be supported by champions. Fittingly, the maramataka (Māori lunar calendar) poster that was used in conjunction with SW closely followed the celebration of New Zealand's first observation of Mataariki[2]. as a public holiday, 24/06/22.

Table 5: *Staged implementation order*

Month	Interventions added
July 2022	Soft Words, Positive Words
August 2022	Reassurance, Bad News Mitigation
September 2022	Mutual Help Meeting, Talk Down
October 2022	Calm Down Methods, Clear Mutual Expectations
November 2022	Discharge Messages, Know Each Other

[2] Marks the start of the Māori New Year with the appearance of the Matariki cluster of stars. Matariki is the first public holiday in either Australia or Aotearoa New Zealand based on a First Nations celebration.

Regular consultation was sought from kaitakawaenga through a series of hui. An outcome of this partnership was the creation of an 11th Safewards intervention, the Powhiri Process (PP). This welcoming process was a key priority for this service and an opportunity was seen to be able to amalgamate it into the Safewards model due to the resembling characteristics, including patient-centred, improving ward atmosphere and least restrictive practice. After all ten Safewards interventions were implemented according to the staged design, the 11th intervention was then implemented.

The Safewards fidelity checklist (Appendix T: Safewards fidelity checklist) was adapted for the staged interventions and completed once a month by an external person to measure the extent to which the seven interventions with a visual aspect were being implemented. The form was returned to the researcher each month for digital entry to Microsoft Excel for later analysis. A total of 14 checklists were completed over the implementation period.

A Patient-Staff conflict checklist (PCC) (Appendix S: Safewards Patient-Staff Conflict Checklist)was completed by the shift lead at the end of each shift in both the open side and the low stimulus area ward settings. The PCC was a slightly adapted version from the Safewards online resources (Safewards, n.d.-d). Adaptations included: removing demographics and legal status; adjusting language to what is used in the study setting, such as staff roles, containment measures and levels of observations; and removing unrelated questions, such as the locking of the ward. The purpose of adapting the pre-established form was to improve timeliness of completion and improve relevance to the study setting. This checklist was available as hard copy forms in the staff office or electronic forms on computers via Qualtrics to support accessibility. University of Waikato have a site license for Qualtrics software (https://www.qualtrics.com/) who treat data as highly confidential and protect the security of data with firewalls and encryption. PCC fidelity was measured through a monthly audit using a Releasing Time to Care safety cross. Safety crosses are a calendar tool that is used in Releasing Time to Care to collect and present data to identify areas for improvement (Montgomery et al. 2018). This was completed by the researcher monthly and results were emailed out to staff by the ward administrator. The goal, outlined by Safewards (n.d.-a), was to score 66% or higher PCC completion rate. The two ward settings and the three shifts were compared against one another. A total of 1775 PCC were collected between 11 April 2022 and 17 October 2023.

A hard-copy EssenCES survey (Appendix R: Essen Climate Evaluation Scheme) was distributed to ward staff and tangata whai ora by an administrator each month to complete. Surveys were returned to a sealed drop box and respondents could choose to complete the form. Hard copy EssenCES surveys were entered into Qualtrics each month by the researcher throughout the collection period. A total of 222 responses were received between June 2022 – August 2023. The analysis of the PCC and EssenCES is presented in chapter five, findings.

4.2.3 Phase three

Qualitative data collection

Phase three, the evaluation phase, with qualitative data part of the evaluation, can be broken into two parts. The first part involved qualitative focus group data collection and the second part involved quantitative data. Phase three focus groups repeated the methods of phase one focus groups described above, including recruitment (Appendix J: Phase three focus group poster; Appendix L: Phase three staff email). Staff participants may have been the same or different to those in phase one. All tangata whai ora participants were different than those in phase one, though the study was designed so that they could have been the same. In the focus groups Safewards was reflected upon and the eleven interventions discussed. This was a semi-structured focus group where there were questions and open discussion around how successful the adaptations and interventions were. On 18/07/23 three RNs attended the first focus group. On 19/07/23 three staff attended the second staff focus group, this was made up of two RNs and one MHA. The final staff focus group was held for managers on 20/07/23 of which three ACNMs attended. The managers attended a separate focus group to prevent power imbalance and allow their staff to openly discuss their perspectives. As in phase one, no members of the treating team (psychiatrist, registrar and social worker) attended. All staff attended for the entirety of the focus groups. Light refreshments were provided and enjoyed as we spoke.

Different to phase one, the tangata whai ora focus group was held on the ward in a large, separate room to support tangata whai ora attendance. Due to staffing levels, it was difficult to release staff to escort tangata whai ora as per ward policy. In this semi-structured focus group, the Safewards model was introduced by the research student and then the 11 interventions reflected upon. There were questions and open discussion around their view of the adaptations and interventions. On the 09/08/23 the tangata whai ora focus group was held. Four tangata whai ora, three Māori MHAs, one student nurse and one kaitakawaenga attended. The ward's kaitakawaenga was absent that day, but last minute support was received from a kaitakawaenga from another service, though

they were unfamiliar with the Safewards model. Seven tangata whai ora had been permitted by a psychiatrist as having capacity to consent. Four tangata whai ora, two Māori and two New Zealand Europeans, voluntarily participated for the entirety of the focus group. In contrast to the phase one tangata whai ora focus group, several staff and a student nurse attended to support tangata whai ora and the flow of conversation. Despite occurring on the ward in this phase to support attendance, the atmosphere felt more casual and comfortable compared to the phase one location. Light refreshments were provided and enjoyed at the end of the focus group after the food was blessed. All focus groups were audio recorded and later transcribed. Thematic analysis repeated the methods of phase one. The outcome of the thematic analysis of the focus groups are outlined in the chapter five findings, study three.

Quantitative data collection

Data were requested from Te Whatu Ora Waikato for three time periods: (a) three months pre-Safewards 11/04/22-11/07/22; (b) three months mid-point of implementation 23/11/22-26/02/23; and (c) three months post-Safewards 11/07/23-11/10/23 (Table 6). This allowed for comparison across the study to see any patterns of quantitative data throughout the implementation of Safewards.

Table 6: *Te Whatu Ora data*

Te Whatu Ora ward data
Demographics
Length of stay
Seclusion data
Restraint data
Staff turnover
Tangata whai ora turnover
Inpatient adult service occupancy
Incident reports
Releasing Time to Care activity follow and surveys

PRN, as needed medication, is administered in addition to regular prescribed doses (Wong & Müller, 2023). Wong and Müller (2023) explain that PRN medications used in a psychiatric setting include antipsychotics, benzodiazepines and sedatives to reduce agitation, anxiety and insomnia, rather than treat the main medical condition. Within the Safewards literature, PRN medications are considered a containment practice (ACT Government, 2021; Bowers et al., 2014; Dickens et al., 2020) and were audited in this study to compare their administration rates before and after

Safewards implementation. The PRN audit form was created by researcher and supervisors, as no suitable audit form existed. Verbal orders, once only doses, and PRN pages were included in the audit. Digitally uploaded medication charts were audited pre-implementation 17/01/23. Of a sample of 44 admissions into the study setting between 12/06/22-11/07/22, two medication chart uploads were missing from the electronic database and one was incorrectly scanned so the doses were illegible. A post-implementation PRN audit for the admission period 11/07/23-11/08/23 occurred 11/10/23, 10/01/24 and then 15/03/24. The first attempt at this audit found that many medication charts were not yet uploaded to the system, due to administrative delays or because the tangata whai ora remained inpatient, so three additional months were allowed to pass before the audit was re-attempted. Even with this postponement, 13 medication charts were still unaccounted for, on the online database. Finally, the missing medication charts were investigated a third time and it was found that four medication charts had been uploaded. These were then audited. There was still a large amount of missing medication charts (n=9) and the researcher had to rely on clinical documentation of PRN administration. The findings of the PRN audit are presented as pre-Safewards 12/06/22-11/07/22 and post-Safewards 11/07/23-11/08/23 periods. The outcomes of the quantitative data analysis are presented in chapter five, findings.

4.3 Study setting

This section includes a description of the Waikato region, population, mental health services and initiatives in place that have implications for Safewards. Group characteristics for the time period of this study are expanded upon further, including ethnicity, age, gender and diagnosis in the findings chapter, part two.

4.3.1 Te Whatu Ora Waikato

Te Whatu Ora Waikato is situated in Hamilton city, New Zealand (Waikato District Health Board, n.d.-d). It is part of Te Manawa Taki, one of four regions that 20 district health boards were reformed to for the creation of Te Whatu Ora's (Health New Zealand) and Te Aka Whai Ora's (Māori Health Authority) health plan in 2022 (Te Whatu Ora & Te Aka Whai Ora, 2022). Te Whatu Ora Waikato serves more than 425,000 people over an area of more than 21,000km^2, from northern Coromandel to near Mt Ruapehu in the south and from the west coast of Raglan to Waihi on the east (Waikato District Health Board, n.d.-d). Of the Waikato population, 59% live in urban areas and 41% rurally (Waikato District Health Board, n.d.-d). 23% of the Te Whatu Ora Waikato population is Māori, higher than the national average of 16% (Waikato District Health Board, n.d.-d). Te Whatu Ora Waikato is made up of a tertiary hospital in Hamilton, a secondary hospital in Thames and three rural hospitals in Tokoroa, Te Kuiti and Taumaranui (Waikato District Health

Board, n.d.-d). Te Whatu Ora Waikato employs around 8000 people from more than 50 different nationalities and ethnicities (Waikato District Health Board, n.d.-d).

Mental health and addiction services at Te Whatu Ora Waikato comprise of inpatient and community services and are delivered through a geographical model of four teams (central or rural and north or south) (Waikato District Health Board, n.d.-a). Inpatient care is provided through: Henry Rongomau Bennett centre, a hospital-based adult unit of 125 beds across four wards; one mental health ward unit for older people within the Older Persons and Rehabilitation Building; regional forensic mental health service, Puawai, adjacent the Henry Rongomau Bennett Centre, consisting of five wards, serving the Waikato, Lakes, Taranaki and Bay of Plenty districts (Waikato District Health Board, n.d.-a, n.d.-b, n.d.-c). All services are adult and mixed gendered. Young people requiring inpatient care are referred to The Child and Family Unit within the Starship Children's Hospital at Auckland District Health Board (Starship, n.d.).

For the month of July 2020, the mean length of stay within the adult inpatient unit was 17 days and total seclusion hours were 371 (Waikato District Health Board, 2020a). All tangata whai ora in the study setting ward were involuntary under the MHA (Boshier, 2020). In July 2021 the average seclusion hours had reduced to 142 hours with the key performance indicators over 12 months showing fluctuating seclusion hours each month (Waikato District Health Board, 2021). In July 2021 the total number of adult admissions was 121 and the number of discharges was 105, showing a high "churn" through the wards (Waikato District Health Board, 2021, p. 4). Key performance indicators show that Māori tangata whai ora continue to be secluded in higher numbers than non-Māori tangata whai ora and for longer periods of time (Waikato District Health Board, 2020b). In July 2021 Māori seclusion hours made up 70% of total seclusion hours for the month (Waikato District Health Board, 2021). Total seclusion hours for Māori in July 2020 were 116, compared to 26 hours for non-Māori (Waikato District Health Board, 2021).

4.4 Change climate

Te Whatu Ora Waikato is currently experiencing a significant change climate. In addition to the Te Whatu Ora amalgamation (Te Whatu Ora & Te Aka Whai Ora, 2022), there were significant and ongoing COVID-19 implications for the healthcare system (Te Tāhū Hauora Health Quality & Safety Commission, 2023b). In addition to this unforeseen pressure, an Ombudsman report from Boshier (2020) deemed that the study setting breached Article 16 of the United Nations Convention against torture and other cruel, inhuman or degrading treatment or punishment. This outcome was based on concerns, including: overcrowding; high use of seclusion and restraint; lack

of privacy; staff burnout; and wards that weren't fit for purpose (Boshier, 2020). In 2019 Te Kāwanatanga o Aotearoa New Zealand Government (2019) announced a $100 million project funding to replace the Henry Rongomau Bennett Centre, planned to open in 2026. This purpose-built facility will be designed based on lived experiences to provide a modern, family-centred service, with the capacity to accommodate an additional 10-20 beds (Boshier, 2020). While a new build and associated service changes marks a positive change, these simultaneous changes are likely complex to navigate.

Reflecting a change climate, the study setting was practicing within several quality improvement initiatives. These included RTC (Montgomery et al. 2018); Six Core Strategies (Te Pou, 2020b); Health of the Nation Outcome Scales (HoNOS) (James et al., 2018); toward zero seclusion (Health Quality & Safety Commission New Zealand, 2022); DASA (Dynamic Appraisal of Situational Aggression) (Ogloff & Daffern, 2007); and Safe Practice Effect Communication (SPEC). These frameworks were not introduced simultaneously and had all been established prior to the introduction of Safewards.

4.4.1 Organisational change

Florence Nightingale recognised the importance of progression for good nursing care (Nightingale & Nash, 2019). However, Laker et al. (2019) described that change within mental health wards is difficult and while adjusting to organisational change is an essential part of professional life, employees often experience stress during these transitions. Several studies have indicated that the majority of attempts to implement organisational change end in failure, with an approximate failure rate of 60 to 70% (Errida & Lotfi, 2021). Change in a health care context can be supported by change management, which can occur at different levels of the service where organisational change is comprehensive and transformative, while subsystem change is more incremental and adaptive (Cleary et al., 2019). Both types revolve around communication and change practices are tailored to specific organisational contexts (Cleary et al., 2019). Planned change, such as implementing a new service model, is the most studied and adopted due to its emphasis on planning and collaboration (Cleary et al., 2019). The NSW Government (2020) outline seven key tools for project success: (a) leadership, culture and governance; (b) change management; (c) project management; (d) diagnostic studies; (e) the patient journey; (f) solution development and implemenation; and (g) continuous improvement. Change management is a theoretical framework of this study.

4.5 Population

This co-designed research involves registered, unregistered healthcare workers and tangata whai ora from the study setting, for their perspectives to be included in the development of this nursing model of care. As Māori are overrepresented in mental health services, it is important that this research project incorporated Tiriti o Waitangi, in particular: encouraging Māori participation in the study and working in partnership to develop a Safewards model for the New Zealand context that ultimately works to protect the health and safety of Māori. Their participation was encouraged through the use of kaitakawaenga, advisory from the Māori clinical nurse specialist and cultural adaptations of the Safewards model.

Māori needed to be included in the study design, but not all participants were included based on their ethnicity. There was a need to capture Māori perspectives due to overrepresentation of Māori in the service and the impact of colonisation on Māori health (Health Research Council of New Zealand, 2010). Māori and non-Māori were invited to participate in this study. Kaitakawaenga approached Māori tangata whai ora and invited them to participate in the Māori focus group. Ethnicity data were collected through a tick box on the consent forms. The selection criteria were outlined on the information sheets provided to participants. To show respect and sensitivity towards Māori participants, the following was observed as per the advice of a kaitakawaenga: (a) kaitakawaenga will be offered to be present during recruitment and participation of tangata whai ora that identify as Māori; (b) tangata whai ora will be offered to have whānau present during engagement; (c) a koha is provided (through light refreshments); (d) a karakia will be offered before starting, supported by a Māori facilitator; (e) modestly dressed; and (f) cell phones turned off during interaction to prevent interruptions.

Staff focus groups were limited to three groups with up to ten participants in phase one. This was limited to at least four participants in the phase three focus groups due to staff release challenges. The tangata whai ora focus group was designed to support at least 10 participants however, due to recruitment difficulties this was unable to be met in both phase one and three. Population demographics are detailed in chapter five. Hennink and Kaiser (2022) believe that saturation in qualitative data can be attained within nine to 17 interviews, especially in research involving relatively uniform sample populations. Braun and Clarke (2021) note that while data saturation is widely recommended, this practice is not without critique. Braun and Clarke (2021) dispute the accuracy of previous researchers in being able to quantify the optimal number of interviews or

focus groups pre-analysis and recommend embracing the interpretation of meaning from data rather than adhering to predetermined parameters.

4.6 Māori consultancy

Consultation with kaitakawaenga diminished as the study progressed. This impacted on receipt of important planning, such as the Talk Down poster being submitted to the Māori Health Service, Te Puna Oranga, for cultural and language feedback, however, no response was received. Kaitakawaenga did not attend panel meetings beyond the first, and meeting invites through email remained largely not responded to, beyond phase one of this study. It was important to kaitakawaenga that the Powhiri Process was introduced, which they designed. Knowing the importance of Māori participation in this study, especially as a Pakeha researcher, support and expertise was sought and later provided by Māori clinical nurse specialist and her cultural supervisor. The nature and extent of this consultancy included regular meetings during final planning stages for cultural advice and support. Following this, the Māori clinical nurse specialist provided support during implementation and evaluation stages, providing weekly formal and informal feedback to the researcher, sharing knowledge she gained from discussing the model within her cultural supervision and with other cultural leaders from her community. During evaluation, the Māori clinical nurse specialist also supported the research by arranging a kaitakawaenga for the focus group and helped to identify eligible tangata whai ora participants.

4.7 COVID-19 implications

Key COVID-19 implications for this study were staff absences due to isolation processes, reduced ability to congregate large groups of staff or tangata whai ora together and changes to ward priorities. Staff infection rate peaked at the start of this study, which negatively impacted on staff education. This had a flow on effect and it is likely that this reduced staff knowledge on the Safewards interventions and implementation. This disruption at the start of implementation was attempted to be relieved through the sharing of a monthly newsletter, through staff emails and display on the ward. Staff absences also interrupteded the training of champions, which was attempted to be alleviated through champion instructions, detailed in the Safewards orientation booklet that was shared with all staff. By reducing staff congregation, staff education drop-in sessions were felt by staff to be too short, only scratching the surface of what they required. The ability to support implementation was also affected periodically by researcher and supervisor infections. Ultimately, priorities in the ward setting changed when COVID-19 cases increased. COVID-19 implications were regularly discussed at the panel meetings with management, who encouraged that the study continue as the hospital transitioned back to business as usual.

4.8 Staff turnover

In addition to COVID-19 implications, momentum was also effected by staff turnover. A key driver to this Safewards study was the charge nurse manager, who left her position by the onset of phase one, which is why two charge nurses attended the management focus group. Championing Safewards behind the scenes, the director of area mental health nursing also resigned from her position near the start of the study. The turnover of these positions saw the loss of two key campaigners. Another turnover to highlight was that the ward kaitakawaenga, was new to the role at the start of the study and resigned shortly before the end of implementation. Fortunately, a consumer advisor was recruited to the mental health service part way through the implementation and was able to provide advice and support; their contribution included advocacy for tangata whai ora engagement and design of the popular CME poster.

4.9 Ethical concerns

Ethics approval was granted by the University of Waikato Human Research Ethics Committee (HREC(Health)2021#97) (Appendix A: University of Waikato Ethics Committee approval). Te Whatu Ora Waikato's Research Office (RD021106) (RD022034) (Appendix C: Te Whatu Ora Waikato project registration approval phase one;Appendix D: Te Whatu Ora Waikato Project Registration Approval Phase 2 & 3) and Te Puna Oranga Māori Research Review Committee (Appendix B: Te Puna Oranga Māori Research Review Committee Endorsement) also provided approval for the research to be undertaken. Any arising ethical issues were discussed with supervisors on a monthly basis throughout this study. Key ethical concerns were patient acuity and causing emotional distress in either tangata whai ora or staff participants. These were addressed by gaining psychiatrist opinion for capacity to consent, voluntary participation and the ability for participants to withdraw at any time.

4.10 Methods summary

The methods of this study were made up of three-phases. Phase one designed the New Zealand Safewards model, phase two implemented two interventions at a time and phase three evaluated the adapted model. MMR data included: staff and tangata whai ora focus groups analysis; ward data; EssenCES; PCC; PCC fidelity checks; PRN audits; and Safewards fidelity checklists. Methods needed to be designed to support the inclusion of Māori; the counsel from kaitakawaenga, Māori clinical nurse specialist and their management were essential for this to occur. Methods needed to be adapted as the study was in progress due to the implications of COVID-19. Further details of the methods are described in the subsequent findings chapter.

Chapter 5: Findings

Stories give life to data, and data give authority to stories

Wendy Newman, 2017

5.1 Introduction

The findings chapter of this research thesis is presented in two parts. As this is a doctorate with publication, part one consists of the three publications generated from this research which are outlined below. All publications have an overview paragraph of each manuscript for context. Publications are presented as the accepted manuscripts. Part two consists of the quantitative findings that are not presented in publications. This unpublished work starts by outlining group characteristics. It then presents data collected with Safewards tools as part of the Safewards study, specifically: patient-staff conflict checklist; Essen Climate Evaluation Schema; and fidelity checklist. The service also collects routine data, which are a direct measure of how the service functions and is context for wider findings, and this study examines: incident reports; seclusion; restraint; and data on Releasing Time to Care. Lastly, a pro re nata medication audit is outlined that was collected via a tool created by the researchers.

Unpublished quantitative work is just as valuable to collect and discuss as the published findings. Published literature is not without limitations and unique insights can be gained from examining the quantitative findings of this specific study setting. In addition to examining literature and gathering perspectives from staff and tangata whai ora, numerical findings indicate any changes and patterns in rates of conflict and containment to further evaluate the level of impact Safewards implementation has made in the study setting. Quantitative data can provide tangible evidence of the effect of Safewards implementation and when considered alongside qualitative findings, can shape a more comprehensive evaluation. This mixed-method approach supports a complete understanding of the impact of Safewards implementation, considering both quantitative metrics and qualitative insights from those directly involved in the implementation process.

5.2 Part one: Publications

Study one: *Type*: Literature Review.

Title: An analysis of the barriers and enablers to implementing the Safewards model within inpatient mental health services.

Status: Published.

Reference: Knauf, S. A., O'Brien, A. J., & Kirkman, A. M. (2023). An analysis of the barriers and enablers to implementing the Safewards model within inpatient mental health services. International Journal of Mental Health Nursing, 32(6), 1525-1543. https://doi.org/10.1111/inm.13188

Appendix F: Co-authorship form article one

Study two: *Type*: Original article.

Title: Implementation and Adaptation of the Safewards Model in the New Zealand Context. Perspectives of Tangata Whai Ora and Staff.

Status: Published.

Reference: Knauf, S. A., O'Brien, A. J., & Kirkman, A. M. (2024). Implementation and Adaptation of the Safewards Model in the New Zealand Context. Perspectives of Tangata Whai Ora and Staff. Issues in Mental Health Nursing, 45(1), 37-54. https://doi.org/10.1080/01612840.2023.2270048

Appendix G: Co-authorship form article two

Study three: *Type*: Original article

Title: Implementing the Safewards Model in New Zealand. Insights from tangata whai ora and staff.

Authors: Sarah Knauf, Associate Professor Anthony O'Brien and Emeritus Professor Allison Kirkman.

Status: Under review.

Appendix H: Co-authorship form article three

5.2.1 Study one: An analysis of the barriers and enablers to implementing the Safewards model within inpatient mental health services.

Overview

This research thesis focuses on adapting and implementing the Safewards model for the New Zealand context. To better comprehend the implementation of Safewards, it is crucial to analyse the existing literature, especially the barriers and enablers to implementation. Such analysis is significant before designing a Safewards model that is suitable for New Zealand.

The impact of this study is its recommendations that help support successful Safewards implementation in future practice by learning from the experience of other studies. By examining the barriers and enablers of Safewards implementation internationally, it has relevance for future practice and highlights challenges that continue to be faced in the nursing profession.

Title: An analysis of the barriers and enablers to implementing the Safewards model within inpatient mental health services.

Authors: Sarah Knauf, Associate Professor Anthony O'Brien and Emeritus Professor Allison Kirkman. Appendix F: Co-authorship form article one.

Journal: International Journal of Mental Health Nursing.

Published as: Knauf, S. A., O'Brien, A. J., & Kirkman, A. M. (2023). An analysis of the barriers and enablers to implementing the Safewards model within inpatient mental health services. *International Journal of Mental Health Nursing, 32*(6), 1525-1543. https://doi.org/10.1111/inm.13188

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Authorship statement: All authors listed meet the authorship criteria according to the latest guidelines of the International Committee of Medical Journal Editors, and all authors agree with the manuscript. Author contribution: Sarah Knauf 70%; Anthony O'Brien 20%; and Allison Kirkman 10%.

Abstract

Mental health inpatient units can provide a sanctuary for people to recover from mental illness. To support a therapeutic environment, the safety and wellbeing of service users and staff need protection through reduced conflict and containment rates. The Safewards model identifies 10 interventions to prevent conflict and containment. This paper aims to present barriers and enablers to implementing Safewards within inpatient mental health units by analysing current literature on the Safewards model. A systematic search of 12 electronic databases was undertaken and, following the PRISMA flow chart, 22 primary studies were included in this analysis. The Joanna Brigg's Institute (JBI) was used for quality appraisal. Deductive content analysis was used to organise and interpret data and four categories were identified: (a) designing the Safewards interventions and implementation; (b) staff participation and perception of Safewards; (c) healthcare system influences on Safewards implementation; and (d) service user participation and perception of Safewards. To support successful Safewards implementation in future practice, this review recommends that Safewards implementation is enabled through: robust design of the Safewards interventions and implementation methods; staff participation and positive perception of the Safewards model; a resourced healthcare system that prioritises Safewards implementation; and service user awareness and participation in Safewards interventions. Interactionist perspectives may support the implementation of Safewards. This analysis is limited by research settings mostly being inpatient adult services and inadequate capturing of the service user voice. An ongoing review of barriers and enablers is important for supporting future Safewards implementation.
MeSH Keywords: Inpatient; nursing care; psychiatric nursing; risk management; safety.

Introduction

The purpose of inpatient mental health services is short-term assessment and treatment of mental illness that poses such a degree of risk to the person or others that the person cannot be cared for safely in the community (Cleary, 2004). Acute inpatient care is provided through a contained and continually staffed ward environment (Bowers et al., 2005). Bowers identifies that the reasons a person may be admitted into inpatient care are: risk of harm to themselves or others; suffering from symptoms of a severe mental illness; family or community need respite; or insufficient support and supervision available in the community. Bowers also described that the functions of an acute inpatient mental health unit are: safety; assessment; treatment; supporting self-care; assessment and treatment of physical health.

Peplau (1991) defines nursing as an interpersonal and therapeutic process that occurs when nurses engage in therapeutic relationships with service users. Peplau's formulation of nursing is reflected in studies of inpatient environments, where a good inpatient mental health unit functions with warm therapeutic relationships, respectful interactions, information or choice about treatment and formal/informal talk therapy (Cutcliffe et al., 2015). In addition to the important role staff play, the therapeutic environment is essential in a good inpatient mental health unit (Donald et al., 2015). Inpatient admission can provide a refuge for people with significant stressors (Duhig et al., 2017). Duhig describes that admission can also provide: food and shelter; human connection; a sense of belonging; and a feeling of being cared for.

Inpatient mental health units may be considered sanctuaries as they are environments for emotional and physical safety that allow service users the opportunity to recuperate and rebuild through the supportive care of others (Duhig et al., 2017; Kennedy et al., 2019). However, mental health units can experience episodes of conflict including: violence; suicide; self-harm; and absconding; as well as containment, including: PRN medication; special observations; and seclusion (Bowers, 2014). For the safety and wellbeing of both service users and staff, wards need to reduce rates of conflict and containment (Bowers, 2014).

Conflict in a mental health context describes incidents of physical or verbal aggression, self-harm, suicide attempt, absconding, substance misuse and medication refusal (Bowers, 2014). Containment is defined by Bowers as the different methods staff use to control conflict behaviours, including: administration of sedative medication; coerced intramuscular medication; increased level of observation; restraint and seclusion. Bowers identifies that these incidences have a reciprocating relationship, where conflict can lead to containment and containment can lead to conflict. The Safewards Model was created by Bowers (2014) to reduce rates of conflict and containment in acute mental health wards.

Background

The Safewards package of 10 simple interventions (table 1) to improve relationships between staff and service users has been shown to reduce rates of conflict and containment within acute inpatient mental health units (Bowers et al., 2015). The Safewards model summarises factors that impact conflict and containment rates, including: staff modifiers, when and how staff responds to service users and their environment; service user modifiers, how service users respond to one another; flashpoints, situations that signal possible conflict events; conflict, service user actions that could

threaten the safety of themselves or others; containment, staff prevention of conflict events (Bowers, 2014).

The evidence underpinning the Safewards model comes from a significant literature review by Bowers et al. (2014) that occurred between 2005-2012 on conflict and containment, including all empirical English language research from 1960 onwards, totalling 1181 papers. Research programmes into conflict and containment were implemented from 1996, including the large-scale City-128 study, and resulted in over 100 peer-reviewed publications (Bowers et al., 2014; Bowers et al., 2008). Bowers et al. (2015) implemented the Safewards model as part of a randomised controlled trial to test the efficacy of the interventions and reported a 15% reduction in the rate of conflict events and a 26.4% reduction in the rate of containment events.

Since the original RCT, there have been Safewards publications from around the world including the United Kingdom; Germany; New Zealand; Australia; Canada; Ireland; Finland; Poland; and Denmark. These varied cultures use different forms and rates of containment practices. Safewards has been implemented within a range of hospital settings including adult; forensic; intellectual disability; adolescent; and aged care. However, the literature remains mostly limited to inpatient adult services. Most adult services saw a reduction in rates of conflict and containment; improved staff attitude; or more therapeutic ward atmospheres. Not all forensic settings saw statistically significant reductions in conflict and containment. The literature on the Safewards model remains limited but has shown the interventions to be feasible and to positively impact restrictive practices. Current literature reports numerous barriers and enablers, but so far these have not been systematically researched.

Table 1: *Safewards interventions*

Safewards intervention	Definition
Clear Mutual Expectations	Collaboratively designed standards of behaviour for patients and staff that are publicly displayed.
Soft Words	Displayed statements on how to handle flashpoints; changed after several days.
Talk Down	A de-escalation model is used to prevent flashpoints and to improve staff skills.
Positive Words	At every nursing handover, something positive is said about each patient.
Bad News Mitigation	Assessment and identification of situations where bad news may be delivered and intervening to prevent a flashpoint.
Know Each Other	Shared staff information, according to a template, that is displayed publicly e.g. favourite movie and sport.
Mutual Help Meeting	A meeting for patients to build rapport with one another and identify how they may help each other.
Calm Down Methods	Sensory modulation tools for patients to utilise in times of distress.
Reassurance	Following up with patients after incidents on the ward to debrief and support them.
Discharge Meetings	Public display of positive messages left by other patients on the day of their discharge.

Aims

This paper aims to describe the barriers and enablers to implementing Safewards within inpatient mental health units to support current or future implementation. The questions that this analysis aims to answer are as follows:

1. What are the barriers to implementing Safewards within inpatient mental health units?
2. What are the enablers of implementing Safewards within inpatient mental health units?

Methods

Content analysis with a deductive method was selected for this study as the researcher already had some understanding of what literature existed and was beginning to form a hypothesis that could be tested (Woiceshyn & Daellenbach, 2018). Thematic and content analysis is used in research to find meaning, organise and interpret data, and bring these things findings into a narrative (Crowe et al., 2015).

Inclusion and exclusion criteria

As there is relatively limited literature published on the Safewards model, exclusion criteria were kept to a minimum. There were no geographic or mental health setting exclusions. Literature on Safewards began to be published from 2013; all other literature was published after this date. Literature that did not relate to Safewards barriers and enablers and was not available in full text or an English translation was excluded.

Search strategy

A systematic review of the databases CINAHL Complete, MEDLINE, APA PsycINFO, PubMed, Google Scholar, WorldCat, World of Science, nzresearch.org.nz, Trove, Cochrane library and ProQuest was undertaken, between July 2021-August 2022, to find all available literature relating to the phenomenon of interest, the Safewards model. Manual searches were also undertaken. The PRISMA model phases structured this review (Moher et al., 2009). The search strategy is outlined in Table 2.

Table 2: *Search strategy*

Database	**Boolean/Phrase**	**Results**	**Results refined**
CINAHL complete	safewards OR safewards model	34	34
MEDLINE	TS=safewards OR TS=safewards model	35	35
PA PsycINFO	Keywords: safewards OR Keywords: safewards model	22	22
PubMed	(safewards) OR (safewards model)	35	35
Google Scholar	“safewards model” "safewards"	630	English, excluding citations, 2013 onwards = 204
WorldCat	kw:safewards kw:”safewards model”	74	English = 38
World of Science Core Collection	TS=safewards OR TS=safewards model	77	English = 73
nzresearch.org.**nz**	safewards	0	0
Trove - National Library of Australia	safewards OR "safewards model"	19	Available online = 11
Cochrane library	safewards OR safewards model	5	5
ProQuest	noft(safewards) OR noft(safewards model)	20	20
Total		951	477

Study selection

Guided by the PRISMA flowchart all of the listed databases with the keywords safewards OR safewards model were searched. Using EndNote, 65 duplicates were removed by title, author and year. The reviewer then investigated each piece of literature based on title and abstract and removed any literature that did not meet the inclusion criteria. This excluded 267 references. Full-text downloading and screening were completed. 125 references that did not relate to Safewards barriers or enablers or were not the original primary studies, were excluded. 22 references were the outcome of this literature review and were each subjected to review against the PRISMA checklist (Moher et al., 2009).

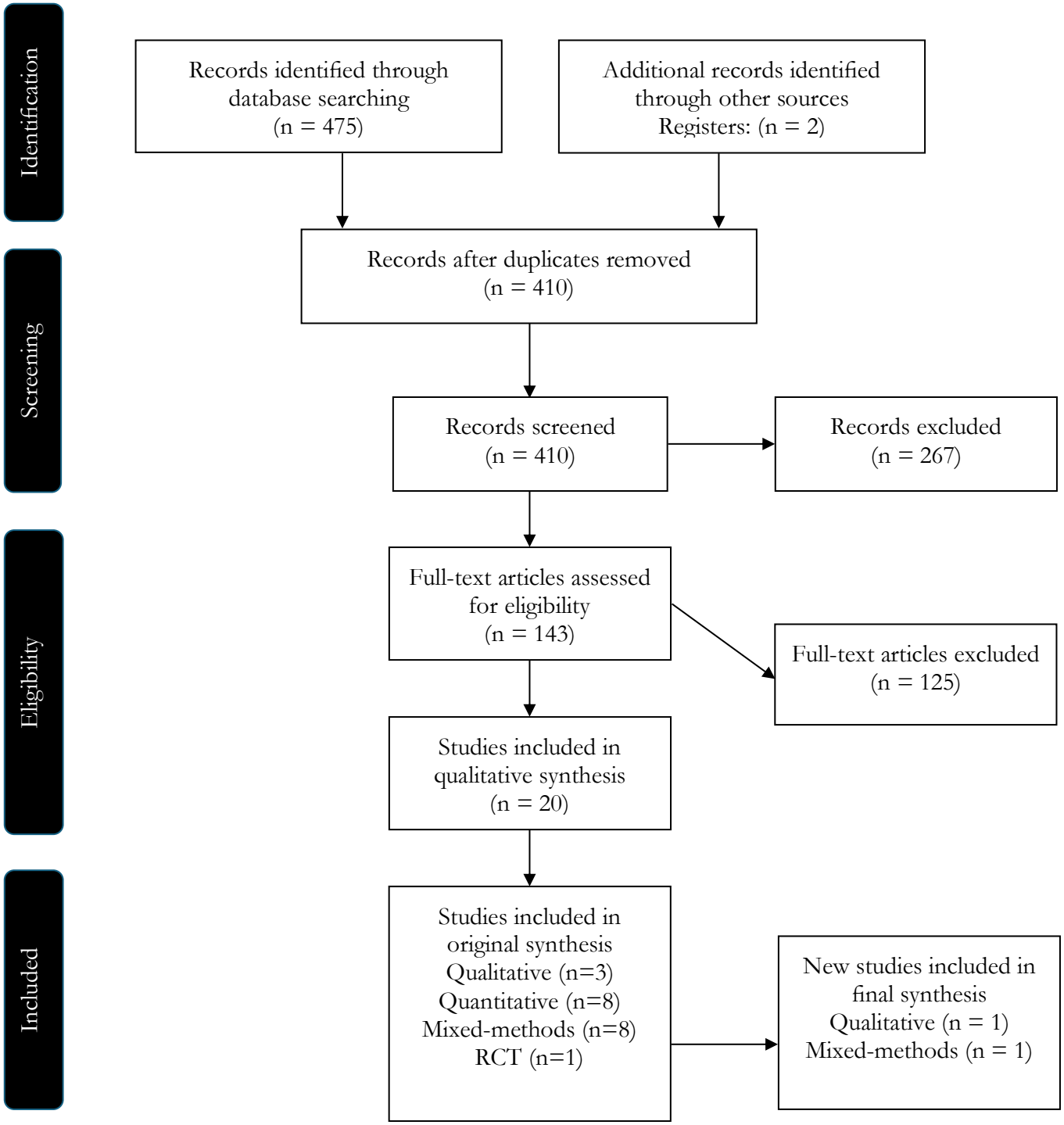

Figure 1: *PRISMA flowchart*

Data Analysis

The process of qualitative content analysis is made up of four steps: (a) identify units of meaning; (b) label equivalent units with a code; (c) group similar codes into a category; and (d) describe related categories with a theme (Kleinheksel et al., 2020). Following this process, the researcher immersed themselves in the data by repeatedly reading through transcripts to become familiar with the content. Full texts were imported into NVivo, where each article was reviewed for units of meaning and these were labelled with a code. Similar codes were then grouped into categories. Finally, themes were created to describe these groups of categories, these form the headings of the findings. The categories of this study are presented under the findings subheadings. The codes and categories were independently reviewed and discussed until agreed upon.

Quality assessment

All 22 references were assessed using the Joanna Briggs Institute (JBI) (2020) critical appraisal tools. JBI tools assist researchers in assessing trustworthy and relevant results of published papers. All papers were independently assessed by two researchers for quality, with any differences discussed until a final quality score was agreed upon. Quality scores are included in Table 3. No papers were excluded based on their quality assessment score.

Results

Article descriptions

Of the final 22 publications, four used qualitative research, eight used quantitative research, nine used mixed-methods research and one was a randomised controlled trial. Geographically, the research was set in the following places: Germany (n=2); United Kingdom (n=6); New Zealand (n=1); Australia (n=8); Canada (n=1); Ireland (n=1); Finland (n=2); Poland (n=1). Hospital types were: adult (n=10); forensic (n=5); intellectual disability (n=1); adolescent (n=2); adult, aged care and adolescent (n=4). Further information about included articles is displayed in Table 3.

Table 3: *Summary of included papers*

Author, country, setting, study design	Aim	Population, timeframe	Data collection	Main findings	JBI score
Baumgardt et al. (2020). Germany. Adult. Mixed-methods.	Evaluate the implementation of the Safewards Model in acute psychiatry.	Two wards. Staff quantitative survey pre and post-Safewards Model (n=53). Patient survey (n=40). 12 months.	Mechanical restraint, forced medication, limitation of freedom of movement, job satisfaction, fidelity, familiarity and implementation of interventions. Essen Climate Evaluation Schema (EssenCES).	Reduction of coercive measures as well as an improvement in ward atmosphere and job satisfaction.	7/9
Baumgardt et al. (2019). Germany. Adult. Quantitative.	Evaluate outcomes of the implementation of the Safewards model.	Two wards. 11 weeks pre and post-Safewards model.	Use of mechanical restraint, forced medication, limitation of freedom of movement, fidelity checklist.	Safewards interventions can reduce coercive measures.	8/9
Bowers et al. (2015). United Kingdom. Adult. RCT.	Evaluate the efficacy of Safewards to reduce conflict and containment.	31 wards (16 experimental and 15 controlled). Staff (n=564). 16 weeks.	Patient-staff Conflict Checklist (PCC), Attitude to Personality Disorder Questionnaire, Self-harm Antipathy scale, Ward Atmosphere Scale (WAS), SF-36v2, Fidelity checklist.	Reduced rate of conflict events by 15% and rate of containment events by 26.4%.	9/13
Cabral and Carthy (2017). United Kingdom. Forensic. Mixed-methods.	Provide a service evaluation of the Safewards implementation on six pilot wards, measuring its impact on the experience of safety and also gauging the staff's experience of implementation itself.	Six wards with staff (n=102) and servicer users (n=89). Eight months.	EssenCES. Safewards Implementation Audit Checklist. Developing recovery enhancing environments measure (DREEM) survey.	Safewards can reduce conflict and the need for restrictive interventions. Safewards can improve wards' social climate in forensic services. Organisational defences can hinder the introduction of change initiatives.	6/9
Davies et al. (2020). United Kingdom. Intellectual disability. Mixed-methods.	Evaluate the implementation of Safewards on an assessment and treatment unit (ATU) for people with an intellectual disability.	One unit. One month pre and post-Safewards model.	PCC and staff feedback.	Reductions in conflict and containment. Safewards generally seen as positive by staff.	8/9

Table 3 *(Continued)*

Table 3 *(Continued)*

Dawson (2020). New Zealand. Adult. Quantitative.	Measure the effectiveness and acceptability of staff of the Safewards Model.	Two units with 67 beds and 126 RN/HCAs. 12 months pre and post-Safewards model.	Seclusion, restraint, staff assaults and sedating PRN medication data. Fidelity checklist.	Safewards Model decreased seclusion events without impacting other containment measures.	8/9
Dickens et al. (2020). Sydney, Australia. Adult. Quantitative.	Measure changes in shift-level reports of conflict and containment associated with Safewards introduction, and measure any association with change in the violence prevention climate using a tool validated for use in the current study setting.	Eight wards. 24-week implementation.	PCC. Violence prevention climate (VPC). Fidelity checklist.	Reported conflict and containment incidents per shift fell by 23.0 and 12.0%. Violence prevention climate ratings did not change.	8/9
(Fletcher et al., 2021) Victoria, Australia. Adolescent, adult, aged, secure. Mixed-methods.	Understand implementation in complex health service environments to inform more effective implementation and understand variations across wards.	18 units. 12-week implementation.	Consolidated Framework for Implementation Research (CFIR). Readiness Checklist. Fidelity Checklist. Training and Implementation Diary.	Recommend: engagement of key staff including managers; making training a priority for all ward staff; adequate planning of the process of implementation; and creating an environment that prioritises and enables interventions to be undertaken by staff regularly.	7/8
Fletcher, Buchanan-Hagen, et al. (2019). Victoria, Australia. Adult. Mixed-methods.	To describe the impact of Safewards on consumer experiences of inpatient mental health services.	10 wards. 72 consumers. 9-12 months post-Safewards model.	Post-intervention service user survey.	Most participants were positive about Safewards, highlighting important improvements in their experiences of inpatient care since implementation.	7/8
Fletcher, Hamilton, et al. (2019). Victoria, Australia. Adolescent, adult, aged, secure. Mixed-methods.	Understand the impact of Safewards from the perspectives of the staff.	14 units. 103 staff. 12 months post-Safewards model.	Post-intervention staff survey.	Safewards contributes to a reduction in conflict events and is an acceptable practice change intervention.	7/9
Fletcher et al. (2020). Victoria, Australia.	Analyse two training methods (local and in-service) and subsequent implementation of Safewards.	18 units. Nursing and allied staff pre (n=275) and post-training	Pre and post-training survey & fidelity checklist.	Staff knowledge, confidence, and motivation increased significantly from pre- to post-training, with no difference between the two training methods and no difference in fidelity.	8/9

Table 3 *(Continued)*

Adolescent, adult, aged, secure. Quantitative.		(n=153) survey. Four months.			
Fletcher et al. (2017). Victoria, Australia. Adolescent, adult, aged, secure. Quantitative.	Compare seclusion rates between Safewards trial wards and other Victorian mental health wards (comparison wards), and investigate the impact Safewards has on the use of seclusion in trial wards.	13 wards and 31 comparison wards. 12-week Safewards trial and one-year follow-up.	Seclusion rates and fidelity checklist.	Seclusion rates were reduced by 36% in Safewards trial wards.	9/9
Higgins et al. (2018). Queensland, Australia. Adult. Qualitative.	Explore nursing staff perceptions of the factors impacting on their capacity to establish Safewards in acute adult inpatient wards.	Three wards. 15 staff. 12 months post-Safewards model.	Staff interviews.	Safewards provide an opportunity for a change in attitudes and the development of a more therapeutic ward environment.	9/10
Hottinen et al. (2020). Finland. Adolescent. Quantitative.	Evaluate the impact of the implementation process of the Safewards model on the social climate of adolescent psychiatric inpatient wards by using the Essen Climate Evaluation Schema questionnaire.	Six units. Pre-Safewards 42 inpatients and 134 staff. Post-Safewards 39 inpatients and 115 staff. 12 months apart.	EssenCES by staff and service users.	Inpatients experienced increased patient cohesion and therapeutic hold. Staff members experienced more safety.	7/9
James et al. (2017). United Kingdom. Adults. Qualitative.	Describe the different ways in which the intervention was implemented and explore the contextual factors moderating the quality of intervention delivery.	16 wards experimental wards and 15 comparisons. 24 weeks.	Participant observation and focus groups.	Observed modifications to the intervention which could enhance or dilute the intervention effects that could inform future implementation.	8/10
Kipping et al. (2019). Canada. Forensic. Mixed-methods.	Examine the effectiveness of implementing the Safewards model with an approach that embedded co-creation principles in the staff training. In response to legislation to address workplace violence.	Six units (125 beds). 259 staff. Two-year study period.	Champion training attendance, completion of online training, perceptions of co-creation collected from evaluation tool, and fidelity checklist.	The study supports the use of co-creation as an implementation strategy to improve fidelity.	8/9

Table 3 *(Continued)*

Lee et al. (2021). Ireland. Adult. Qualitative.	Explore mental health nurses' experience of the introduction and practice of three Safewards interventions; reassurance, soft words and discharge messages.	42-bed unit. 12 months applying the Safewards model. Three focus groups of registered nurses (n = 16) and managers (n = 5).	Focus groups.	Safewards enhanced communication, improved relationships with patients and promoted a shared commitment to safety through collaboration.	9/10
Lickiewicz et al. (2021). Poland. Male adult. Quantitative.	Translate Safewards into Polish and measure the effectiveness of the Safewards model in reducing mechanical restraints in a Polish mental hospital.	One unit, 50 beds. Eight-month Safewards application.	Mechanical restraint rates.	Mechanical restraint use dropped by 24%. The number of patients mechanically restrained dropped by 34%. Restraint duration remained at 2.8 days per episode.	8/9
Maguire et al. (2018). Victoria, Australia. Male forensic. Mixed-methods.	Evaluate the introduction of Safewards to a forensic mental health ward to determine suitability, and to explore if changes to conflict, containment, and ward atmosphere occurred.	One ward, 20 beds. Service users (n=14) and staff (n=12) participated. 12 months Safewards application.	Conflict and containment event rates. EssenCES. Fidelity checklist.	Patients and staff were accepting of the Safewards model and achieved high fidelity. There did not appear to be any difference in the already low rates of seclusion and restraint and there did appear to be a reduction in conflict events. There were positive changes identified in the ward atmosphere.	9/9
Palviainen et al. (2020). Finland. Forensic. Quantitative.	Describe the social climate and its development in bed wards of the HUS Psychiatry line of psychoses and forensic psychiatry as Safewards model implementation progressed.	Eight wards. 335 patients and staff. Two data collections six months apart after 12 months of Safewards implementation.	WAS	The social climate of the reviews supports the rehabilitation of patients and the experience of safety in psychiatric wards.	8/9
Price et al. (2016). United Kingdom. Forensic. Mixed-methods.	Evaluate the effect of Safewards in forensic mental health wards.	Three Safewards wards (29 patients) and three non-RCT (32 patients). 22-week study period.	PCC, fidelity checklists, informal individual and group staff feedback meetings.	No statistically significant benefits of reduced conflict or containment were observed in the intervention wards compared with the control wards.	9/9
Yates & Lathlean, (2022). United Kingdom. Adult. Qualitative.	Identify the factors influencing the success of ten Safewards interventions when implemented in an acute adolescent ward.	One ward. Two nurses and eight healthcare assistants. Four months post-implementation. 23-week study period.	Staff interviews.	Many of the factors influencing Safewards' success in adolescent mental health paralleled the evidence found in adult services. Some interventions were advantageous when implemented in an adolescent ward.	9/10

Categories

Four categories were identified in the findings of the reviewed studies: (a) designing the Safewards interventions and implementation; (b) staff participation and perception of Safewards; (c) healthcare system influences on Safewards implementation; and (d) service user participation and perception of Safewards. Two related to the stakeholders involved in Safewards implementation: staff and service users; and two related to design and resources. The findings of this literature review are presented under the headings of barriers and enablers, and the four categories form the subheadings.

Table 4: *Table of findings*

Categories	**Barriers**	**Enablers**
Designing the Safewards interventions and implementation	Adaptation Data Tools Implementation Training	Training Stakeholder engagement Adaptability Data
Staff participation and perception of Safewards	Attitude Engagement Champions	Engagement Attitude
Healthcare system influences on Safewards implementation	Staffing Acuity Resources Ward climate Leadership	Resources Leadership Preparation Ward Climate Staffing Policies
Service user participation and perception of Safewards	Engagement Involvement Language and intention	Engagement Values

Barriers

Designing the Safewards interventions and implementation

Adaptation

Adaptation of Safewards interventions to fit a particular context was seen within some studies (Dawson, 2020; James et al., 2017). While some staff adapted interventions to fit current practice, adaptions didn't always protect the spirit of the intervention (James et al., 2017). Dilution or negative adaptations of interventions were seen in James' study when staff did not fully understand the purpose of an intervention or its underpinning theory. In the only New Zealand study, staff felt the main barrier was the absence of cultural safety adaptation (Dawson, 2020).

Data

Several studies identified that because of other interventions occurring alongside Safewards, reduced rates of conflict and containment could have several contributors (Dickens et al., 2020). Dickens argues that design barriers include data that is collected without control wards, randomisation or blinding. Despite being a highly valued RCT design, there were still barriers to Bowers et al.'s (2015) study where there was a high level of missing data. Not all staff consented to Bower's study which increased this barrier. Staff declining to participate was also seen in Baumgardt et al. (2020) due to participant identification codes not being 100% anonymous, a barrier to pre-post data matching. Manual data was also a design barrier where incorrect data entry and calculation can affect results and must be supported by two independent people (Baumgardt et al., 2020).

Tools

Studies reported on the two recommended tools: (a) fidelity checklist and (b) patient-staff conflict checklist (PCC). Barriers to the Safewards fidelity checklist were identified in several studies (Baumgardt et al., 2020; Baumgardt et al., 2019; Bowers et al., 2015; Dickens et al., 2020). The most common barriers identified in these studies were that the tool only measures objective and visual evidence. This excludes the measurement of: (a) staff engagement and attitudes to Safewards; and (b) if interventions are occurring in daily routines and the degree of their implementation. The Safewards PCC was a tool identified as being a barrier to staff engagement. Due to demands on staff time within study settings, the PCC was omitted from some study designs or not completed by staff who viewed it as a burden (Fletcher et al., 2017; Price et al., 2016). Non-consenting nurses in charge did not feel obliged to complete the PCC at the end of their shift, resulting in incomplete data (Bowers et al., 2015).

Implementation

The implementation of Safewards was identified as a complex process (Fletcher et al., 2021). The implementation timeframe was a barrier in some studies where implementing all ten interventions at once and within a short time frame was overwhelming and a significant demand on staff time (Bowers et al., 2015; Price et al., 2016). Poorly planned, short or rushed implementation periods increased pressure on wards that were already struggling with understaffing and high staff turnover (Fletcher et al., 2021; Price et al., 2016). There was evidence that sometimes the implementation design was inadequate, leading to staff being unaware and unprepared for interventions (Lee et al., 2021; Price et al., 2016). After implementation, dwindling staff enthusiasm is a barrier that needs to be considered (Lee et al., 2021).

Training

Barriers within training were a common theme in Safewards studies. A barrier existed in the ability of wards to release staff to attend Safewards training (Fletcher et al., 2021). The nature of the settings, including staffing levels, shift work and budgets, was identified by senior management as making it impractical for all staff to be trained (Higgins et al., 2018; Yates & Lathlean, 2022). Train-the-trainer was a complementary or standalone education method but its effectiveness was questioned (Lee et al., 2021; Price et al., 2016). After implementation, it was a challenge to ensure that Safewards orientation for new staff occurred (Davies et al., 2020). The need to release staff for education, improve training and deliver better learning resources was identified as necessary to support staff understanding and buy-in (Dawson, 2020; Lee et al., 2021; Price et al., 2016; Yates & Lathlean, 2022).

Staff participation and perception of Safewards

Attitude

Staff attitude was a key theme in staff barriers to Safewards implementation. Staff resistance to Safewards was mentioned in several studies (Baumgardt et al., 2019; Cabral & Carthy, 2017; Fletcher et al., 2021; Higgins et al., 2018). Resistance in these studies could have been related to the staff's perceptions of Safewards as: questioning of status quo (Cabral & Carthy, 2017); interventions reflecting standard practice (Fletcher et al., 2021); perceived value or advantage it offered them; leadership staff's obstruction or ambivalence (Fletcher, Hamilton, et al., 2019); mixed or negative staff attitudes (Higgins et al., 2018; Lee et al., 2021); incompatibility with their roles and responsibilities (Fletcher, Hamilton, et al., 2019); lack of ownership (Fletcher, Hamilton, et al., 2019; James et al., 2017); difficulty engaging with interventions (Higgins et al., 2018); model too basic for senior nurses; sabotage (Cabral & Carthy, 2017); pessimism (Price et al., 2016); ineffective

in reducing conflict and containment (Higgins et al., 2018; Price et al., 2016); questioning staff knowledge and skills (Higgins et al., 2018; Lee et al., 2021); a time-limited intervention (Higgins et al., 2018); strong ward cultures (James et al., 2017); lack of confidence to try new interventions (James et al., 2017); the issue of power-sharing and perceived risks (James et al., 2017); current practice superior (James et al., 2017).

Engagement

Barriers to staff engagement affected successful Safewards implementation. Successful implementation is dependent on staff willingness to be involved (Fletcher, Buchanan-Hagen, et al., 2019). Baumgardt et al. (2019) redeployed non-consenting staff to support implementation and sustainability. There was evidence that interventions were implemented inadequately or sometimes not at all (Fletcher, Buchanan-Hagen, et al., 2019). Some staff were unaware of interventions or their application (Dawson, 2020). A deficit in staff's Safewards knowledge and skills was reported by Cabral and Carthy (2017). Champions perceived that staff had a limited understanding of Safewards because of unawareness and non-engagement with learning materials (Lee et al., 2021). Not having offered participants to sign-up for champion roles and collecting staff views were seen as a barrier to staff being informed and engaged (Fletcher et al., 2021; Lee et al., 2021). Staff highlighted that the language of Safewards further promoted non-engagement, including that nurses felt it was telling them how to talk to service users and was not clinical enough, rather for "toddlers" (Higgins et al., 2018, p. 117). A lack of support for Safewards was seen in the literature and is at risk of increasing if not supported by staff and management (Lee et al., 2021).

Champions

Intervention champions were sometimes used inconsistently or not at all (Price et al., 2016). When champions were identified, delayed engagement with them was a barrier (Fletcher et al., 2021). Despite their role in disseminating information, champions did not always discuss Safewards regularly with staff (Lee et al., 2021). Rather than recruiting voluntary champions, Higgins et al. (2018) selected their champions based on their "aptitude and motivation" (p. 118) but the effectiveness of this was questioned due to their perceived lack of seniority. To overcome this barrier, it was suggested that nurses in charge of shifts should take on more responsibility to support implementation. The champions in Higgin's study left most of the implementation to nurse educators. There were difficulties identified with having the role of both manager and Safewards champion as there was hesitation from participants to engage with champions as they felt that due to their responsibilities, they wouldn't have time to engage with staff about Safewards (Lee et al., 2021).

Healthcare system influences on Safewards implementation

Staffing

Staff turnover was identified as a barrier to Safewards implementation, this resulted in changes in leadership and staff participants (Baumgardt et al., 2020; Baumgardt et al., 2019; Fletcher et al., 2017; Higgins et al., 2018; Lickiewicz et al., 2021). As well as turnover, lack of staff time for Safewards interventions was seen in the literature and was contributed to by ward acuity, staff shortages and limited professional experience (Baumgardt et al., 2020; Baumgardt et al., 2019; Davies et al., 2020; Dawson, 2020; Fletcher et al., 2021; Fletcher et al., 2017; Lee et al., 2021; Palviainen et al., 2020; Yates & Lathlean, 2022). Time was also a barrier to the ability of staff to attend Safewards training (Fletcher et al., 2021; Higgins et al., 2018; Lee et al., 2021).

Acuity

High ward acuity was seen in research as a barrier to Safewards implementation. This limited the available time staff had to attend Safewards education and implement interventions (Fletcher et al., 2021). Ward busyness or short staffing affected the consistency of interventions, with some being forgotten about in an acute environment (Davies et al., 2020; Yates & Lathlean, 2022). The more acute the ward, the higher rates of staff shortages, service user acuity and incidences (James et al., 2017). Trying to manage this high workload whilst simultaneously applying Safewards interventions in daily practice was a challenge (Yates & Lathlean, 2022). Yates and Lathlean also identified the additional effort required to work alongside non-regular staff as a result of staff shortages and turnover.

Resources

Inadequate support and resources were identified by staff as a barrier to Safewards implementation (Dawson, 2020). It was not always clear what resources would be required, including: time; rooms; money; and equipment (Baumgardt et al., 2019). Some wards had not sourced the required materials before Safewards was implemented (Fletcher et al., 2021). When materials were prepared wards then faced the challenge of finding staff time to ensure the items remained stocked and undamaged (Davies et al., 2020). Resource availability limited study designs, affecting the ability to have an observational-based trial and interviewing staff (Bowers et al., 2015; Dawson, 2020). Organisations having the resources available to effectively educate staff on Safewards would support implementation (Dawson, 2020).

Ward climate

As well as the inherent challenges with implementing change in the practice of mental health nurses, the implementation climate can be a barrier (Fletcher et al., 2021; Higgins et al., 2018).

Ward environment is a determinant of the quality of implementation (James et al., 2017). Ward environments can impact Safewards implementation no matter the significant effort put into staff training (Higgins et al., 2018). A ward with instability affected implementation, including: acuity; incidents; staffing turnover and numbers; unregular staff; management changes or absences; or other major initiatives (James et al., 2017). Dynamics within teams can also affect individual staff responses to Safewards interventions where interventions not aligning with values and current practice can lead to low implementation efforts (Fletcher et al., 2021; James et al., 2017).

Leadership

Changes or absences within leadership during implementation were seen as a significant barrier to implementation, resulting in reduced leadership and role modelling that affected staff support and therefore staff ability and willingness to implement Safewards (Fletcher et al., 2017; James et al., 2017; Lickiewicz et al., 2021). Lack of leadership support was also felt by staff when a communication deficit was perceived between senior and junior staff (Higgins et al., 2018). Higgins recommends more support from management is required for the successful implementation of the Safewards model.

Service user participation and perception of Safewards

Engagement

Some service users found it difficult to engage with Safewards which affected their level of participation (Davies et al., 2020). Service users weren't always able to: understand the topic; have the confidence to engage; feel safe enough to engage meaningfully; or know what to say (Davies et al., 2020; Fletcher, Buchanan-Hagen, et al., 2019; Price et al., 2016). Their mental health sometimes affected their ability to participate (Davies et al., 2020; Hottinen et al., 2020). Those who were well enough may have been more likely to participate and have had a positive experience with Safewards, possibly skewing results (Fletcher, Buchanan-Hagen, et al., 2019). It is possible that non-engaging service users had a negative perception of their treatment and their view of the ward atmosphere may have been more negative (Palviainen et al., 2020). Palviainen et al. (2020) was not able to determine if service user non-engagement was related to mental health or refusal. High acuity and turnover of service users were identified as a barrier to implementation (Baumgardt et al., 2020; Higgins et al., 2018; Lee et al., 2021). Price et al. (2016) felt that service users should have been more involved in the implementation process.

Involvement

Service users were more inclined to give qualitative comments than complete quantitative questions, limiting collected data (Fletcher, Buchanan-Hagen, et al., 2019). Not all services in

Fletcher, Buchanan-Hagen, et al's study granted ethics for service user recruitment which prevents their recruitment. Staff feedback was that the Safewards booklet given to service users on admission was uninformative and may have contributed to their belief that service users were unaware of Safewards implementation (Lee et al., 2021). The limitation of failing to include service users in implementation processes may explain their non-engagement (Price et al., 2016). Service user participants identified how the design of some interventions required the sharing of personal information that could breach service users' rights to privacy and confidentiality (Fletcher, Buchanan-Hagen, et al., 2019; Price et al., 2016).

Language and intention

There were negative service user experiences of Safewards in Fletcher, Buchanan-Hagen, et al.'s (2019) study. They found that: not all of the interventions were suitable and respectful of service users; Safewards was described by some as unhelpful; the language of Safewards was felt to be condescending; Calm Down Methods was viewed as a children's concept; and participants didn't always see a positive outcome from Mutual Help Meetings. In Price et al. (2016), Mutual Expectations that weren't developed alongside service users appeared more like ward rules, not in keeping with the intention of this intervention.

Enablers

Designing the Safewards interventions and implementation

Training

Planning and engaging in training, along with sufficient resources and support, enabled the implementation process (Dawson, 2020; Fletcher et al., 2021). Regardless of methods (training days or in-service), training showed a positive effect on staff knowledge and ability to implement Safewards, providing an important foundation for successful implementation (Fletcher et al., 2020). Fletcher et al. (2020) found that taking a team approach and using interactive group training creates shared motivation and supports the transference from education into practice and increases fidelity. To reach shift-working participants, Fletcher et al. (2020) provided structured training that had flexible delivery and supported more staff to attend. Mandatory training and focusing on the underpinning theory of Safewards were recommended to support implementation (Lee et al., 2021). Staff in Fletcher, Hamilton, et al.'s (2019) study reported that Safewards is not only clear but straightforward to understand and implement.

Stakeholder engagement

Including key stakeholder engagement in the design process is an enabler of Safewards implementation (Fletcher et al., 2021). Co-creation, where staff and service users are included in

the design and implementation process, was identified by Kipping et al. (2019) to support Safewards implementation. Engagement with these stakeholders promoted discussion in Kipping et al.'s (2019) research to a better understanding of the impact of Safewards implementation. Kipping et al. (2019) summarised that engaging staff through co-creation enhanced staff acceptance and adherence to Safewards. Good adherence to Safewards seems crucial and the fidelity checklist is a reliable tool for evaluating the quality and fidelity of eight interventions (Baumgardt et al., 2020; Baumgardt et al., 2019). Extended fidelity monitoring in one study was attributed to their implementation success (Fletcher et al., 2017).

Adaptability

A strength of Safewards is its ability to be adapted to fit ward settings and culture (Baumgardt et al., 2019; Bowers et al., 2015; Davies et al., 2020; Fletcher et al., 2021; Hottinen et al., 2020; Kipping et al., 2019). The ability to adapt interventions is recognised and Bowers (2015) describes how new interventions can be created based on the underlying Safewards model. Adaptions must not alter the core purpose of the intervention or model (Baumgardt et al., 2019; Bowers et al., 2015). The language was seen to change to better suit the setting (Davies et al., 2020). Implementation processes were another adaptable feature of Safewards, studies showed: implementation flexibility (Dickens et al., 2020); timelines that supported intervention understanding and shaping to setting needs (Baumgardt et al., 2019; Davies et al., 2020); and freedom to implement Safewards in the best way for the setting (Kipping et al., 2019). A longer or staggered implementation that included more staff in the process and provided regular information, and discussions with, staff were recommended for effective implementation (Bowers et al., 2015; Fletcher et al., 2017; Lee et al., 2021).

Data

To give insight into effective and sustainable interventions there needs to be a regular evaluation of coercion data, including frequency and duration (Baumgardt et al., 2019). Relevant and quality data can often be sourced from routine measures (Dickens et al., 2020). For data collection during implementation, manual data entry can be affected by human error (Baumgardt et al., 2020). Paying close attention to manual data entry or replacing it with electronic forms can prevent human error was recommended by Baumgardt et al. (2019). The dissemination of response rates from regular data collection can inform managers of feedback and suggestions for staff to increase response rates (Dickens et al., 2020).

Staff participation and perception of Safewards

Engagement

Staff positivity supported implementation (Dawson, 2020). Staff engagement was a significant enabler of successful Safewards implementation (Higgins et al., 2018; Kipping et al., 2019). Several study settings were given the choice to opt-in to Safewards (Baumgardt et al., 2019; Davies et al., 2020; Dickens et al., 2020; Fletcher et al., 2020; Fletcher et al., 2017). Non-consenting staff were free to not participate (Bowers et al., 2015) or were redeployed out of participating wards to support internal implementation and integration (Baumgardt et al., 2019). Staff collaborated during the planning of training and implementation (Fletcher et al., 2021). Designating champions for each intervention contributed to successful implementation (Price et al., 2016). Engaging with these key stakeholders, champions, as well as leaders, made a significant impact (Fletcher et al., 2021), and dedicating time to these discussions was useful (Davies et al., 2020). Champions and managers reflecting on the implementation progress support necessary changes (Fletcher et al., 2021). Strong leadership engagement is vital for successful implementation (James et al., 2017); they support champion roles and demonstrate to staff that Safewards is valued (Fletcher et al., 2021). Role modelling by leaders can be a significant enabler to support staff engagement and Safewards implementation (Davies et al., 2020; Higgins et al., 2018). Successful Safewards implementation requires a whole team approach (Yates & Lathlean, 2022).

Attitude

While also a barrier, staff attitude was an enabler of Safewards implementation (Dawson, 2020). Fletcher et al. (2021) found that staff on high-implementing wards had a positive attitude towards Safewards and saw value in its implementation. Lee et al. (2021) recommended that champions should be selected based on a range of attributes, including their attitude. Champions on high implementing wards showed commitment and drive for the success of their intervention (Fletcher et al., 2021). Self-efficacy was an enabling trait for implementation and in medium-high implementing wards, staff took responsibility for intervention implementation (Fletcher et al., 2021). Staff embracing Safewards helped embed it into practice and staff were more likely to embrace interventions and adopt the model when they could see positive outcomes from it (Davies et al., 2020; James et al., 2017). While staff perception of the ward atmosphere and their job satisfaction is linked to conflict and containment, it also indicated implementation success (Baumgardt et al., 2020).

Healthcare system influences on Safewards implementation

Resources

Resources being available and accessible are enablers of Safewards implementation (Baumgardt et al., 2019; Dawson, 2020; Fletcher et al., 2021). These resources include access to training, knowledge and information (Fletcher et al., 2021). While Safewards is free and easy to learn (Lickiewicz et al., 2021), a financial commitment to providing resources is required, including: training; printing materials; covering frontline staff for training attendance; and releasing manager's time to promote and support Safewards (Kipping et al., 2019; Price et al., 2016). Fletcher et al. (2020) highlighted the positive impact of extensive investment in training.

Leadership

Leadership engagement, including from senior staff and at an organisational level, was commonly reported as an enabler of implementation (Dawson, 2020; Fletcher et al., 2021) and it must be a collaborative effort (Kipping et al., 2019). Commitment from leaders must be demonstrated consistently, and when the nurse in charge was supportive of Safewards, engagement with the interventions was encouraged and observed during that shift (Higgins et al., 2018). Staff feedback identified that leaders' role modelling interventions would support staff to understand the project teams' expectations (Price et al., 2016). Staff were enabled to attend Safewards training when hospital executives supported training and provided staff cover (Maguire et al., 2018). Significant investment from the Victorian Government of Australia in Fletcher et al.'s (2020) study showed staff that Safewards was valued and that implementation was supported from the top.

Preparation

As many essential parts of the implementation process must be considered, Baumgardt et al. (2019) utilised the Safewards preparation checklist to support this process. Similarly, Fletcher et al. (2021) applied a readiness checklist that evaluated: (a) training; (b) champions; and (c) preparation. The readiness checklist showed that on medium-high implementing wards there had been proactive engagement on the wards and Safewards implementation was discussed at team meetings before training started. The effort to train all staff before implementation was identified as one of the reasons for success in Fletcher et al.'s (2017) study. Training leaders and managers was a strategy used to overcome implementation barriers in Price et al.'s (2016) study. When training is facilitated and seen to be valued by all, it supports: a positive learning climate; enables access to resources and information; and supports staff to feel involved in the implementation process (Fletcher et al., 2021).

Ward climate

Ward climate is one indicator of the success of Safewards implementation (Baumgardt et al., 2020). A positive implementation climate is related to a ward's readiness for Safewards implementation (Fletcher et al., 2021). Fletcher et al. (2021) found that a climate where staff were able to see the compatibility of Safewards with how they already practice and care for service users made Safewards more of a priority. They also argued that when training was provided and valued by the team it supported a positive learning climate. This was further supported by their finding that high-implementing wards had climates where staff knowledge was valued and supported staff to feel safe to give feedback. Following readiness for implementation and staff training, establishing a community of practice was seen as a factor for successful implementation (Kipping et al., 2019). The link that ward staff have to groups outside the organisation was another enabler of implementing Safewards (Fletcher et al., 2021).

Staffing

Several staffing factors positively influence the implementation process, including stable and experienced staff (Baumgardt et al., 2019). From a research point of view, stable staffing is also valued for its continuity (Baumgardt et al., 2020). Adequate staffing and low turnover were found to support a sustained reduction of coercive practices (Baumgardt et al., 2019). Safewards implementation was supported by providing staff and champions with dedicated and protected time to develop and apply interventions (Davies et al., 2020; Kipping et al., 2019). It is also important to prioritise that staff have sufficient time to build therapeutic relationships with service users in their daily practice (Palviainen et al., 2020).

Policies

A stringent policy on managing conflict and confinement was identified as an enabler of Safewards implementation (Baumgardt et al., 2019). External policy and incentives were a construct also reported as an implementation enabler by some Safewards leads in Fletcher et al. (2021). To maximize the effectiveness of Safewards, Yates and Lathlean (2022) encourage adapting procedures and where able, integrate Safewards interventions into existing processes (Price et al., 2016).

Service user participation and perception of Safewards

Engagement

Several studies identified the importance of service users being engaged in the implementation of Safewards (Fletcher, Buchanan-Hagen, et al., 2019; Maguire et al., 2018; Price et al., 2016; Yates & Lathlean, 2022). Maguire et al. (2018) highlighted that this collaborative engagement may be critical

to enhance Safewards implementation. Service users were more likely to remember the interventions that they were directly involved with (Fletcher, Buchanan-Hagen, et al., 2019). Staff participants recommended that managers facilitate Safewards groups with service users to support their knowledge and awareness of Safewards and for them to provide informed feedback on Safewards (Lee et al., 2021). Promotion of service engagement supported interventions to be implemented consistently each day (Yates & Lathlean, 2022). Staff in Yates and Lathlean's study felt that involving service users helped make interventions a success and sustain the Safewards model. Positive feedback from service users reassured their peers and motivated the staff team (Davies et al., 2020), encouraging implementation (James et al., 2017).

Values

Several enabling values were identified in studies by service users. Mutual respect was highly valued in Fletcher, Buchanan-Hagen, et al. (2019) and they also found that there was a sense of belonging for those who participated in Know Each Other, reducing social isolation. Staff felt that Discharges Messages helped reduce the stigma for service users being admitted and provide hope for recovery (Fletcher, Buchanan-Hagen, et al., 2019; Lee et al., 2021). Mutual Help Meetings supported service users to feel heard and prioritised (Davies et al., 2020; Fletcher, Buchanan-Hagen, et al., 2019). A sense of community was felt from an increase in service users' participation and connection (Fletcher, Buchanan-Hagen, et al., 2019). Service users in Fletcher, Buchanan-Hagen, et al.'s (2019) study appreciated knowing what was expected of them; being given options and education to self-soothe; and having input in the ward. Service users also reported that overall, the environment in Fletcher, Buchanan-Hagen, et al.'s (2019) study felt calmer with Safewards which led to them feeling a sense of safety.

Discussion

This is the first article to present barriers and enablers to implementing Safewards within inpatient mental health units by analysing current literature on the Safewards model. So far, there is no theoretical framework for organisational change for Safewards. In this discussion the main findings are summarised in table five, managing resistance to change is discussed, Safewards is compared to Six Core Strategies, approaches to organisational change are suggested and the relevance of this paper in practice is outlined.

Findings

Table 5: *Overview of recommendations*

Category	Overview of recommendations for implementation
The robust design of the Safewards interventions and implementation methods	Adapt language and interventions whilst protecting the spirit of the intervention. Make cultural safety adaptations. Match data pre and post. Perform RCT as able. Reduce the probability of missing data. Careful planning of the implementation period. Support staff awareness, preparation and enthusiasm for Safewards. Support staff to attend training. Orientate new staff to Safewards. Provide sufficient resources. Engage key stakeholders. Co-create Safewards. Support good adherence to the model. Distribute data to staff.
Staff participation and positive perception of the Safewards model	Increase staff awareness and engagement with Safewards. Develop staff Safewards knowledge and skills. Collaborate with staff during planning, training and implementation. Grow staff support for Safewards. Support for implementation by managers and nurses in charge. Allocate champions for all interventions. Engaging champions with staff regularly. Demonstrate strong leadership and remodelling. Approach from a whole team perspective. Express positive staff attitude towards Safewards. Embracing and embedding Safewards by staff.
A resourced healthcare system that prioritises Safewards implementation	Reduce staff shortages and turnover. Release staff for training, champion roles and interventions. Provide staff with adequate support and resources. Provide stable and experienced staff. Maintain stable management. Grow strong leadership and supportive management. Provide staff access to training, knowledge and information. Invest in Safewards, including training costs. Engaging Safewards leadership demonstrated. Engage with stakeholders during preparation, training and implementation. Utilise an implementation checklist. Develop a positive learning and implementation climate. Establish a community of practicing. Prioritise staff time to build therapeutic relationships. Develop a stringent policy on managing conflict and confinement. Adapt existing procedures and integrate Safewards.
Service user awareness and participation in Safewards interventions	Support service users to be engaged in the implementation process. Collect qualitative feedback from service users. Ensure service users are aware and informed of Safewards. Protect service users' privacy and confidentiality during interventions. Collaborate with service users to develop and adapt interventions. Facilitate Safewards groups with service users. Share service user feedback with staff.

Managing resistance

Resistance was identified as an inhibiting factor in this review and has also been noted in other initiatives seeking to implement change in mental health care, including: restraint reduction (Curran, 2007) and seclusion elimination (Gerace & Muir-Cochrane, 2019). In their analysis, Higgins (2018) found that staff resistance to Safewards was related to staff perception of: mixed or negative staff attitudes; difficulty engaging with interventions; model too basic for senior nurses; model ineffective in reducing conflict and containment; questioning staff knowledge and skills; and a time-limited intervention. The 10 Safewards interventions are intentionally designed to be easy to implement and are consistent with what is already seen as good practice, where effective units function with therapeutic relationships; respectful interactions; treatment information or choice; and talk therapy (Cutcliffe et al., 2015). Yet, there are challenges to making even minor changes to mental health nursing practice (Higgins et al., 2018), and even successful improvements struggle to be sustained or replicated (Breckenridge et al., 2019). Framing Safewards as supporting good practice rather than emphasising change may help to overcome staff attitudes and resistance to change. This may be achieved through motivational theory where role models can influence motivation and goals by showing the value of the goal (Morgenroth et al., 2015). This analysis has identified that role models include management, champions and senior staff. When nurses have a purpose and their values align with work, the work is more meaningful and motivating (Moody & Pesut, 2006). Moody and Pesut described that when supported, motivation can spread between individuals and create a cultural shift. Resistance to improvement can be overcome with research evidence or service user feedback (Moody & Pesut, 2006). This was seen in this analysis where positive feedback from service users motivated the staff team (Davies et al., 2020). Showing evidence that change is effective is also motivating and this can be achieved by sharing data (Moody & Pesut, 2006). Baumgardt et al. (2019) gave insight into effective and sustainable Safewards interventions through regular evaluation of coercive data. Through trust, leadership and conveying motivations for improvement, groups can share a goal (Moody & Pesut, 2006). If the shared goal for Safewards is a safer ward community then existing nursing values should align with this, role models would be able to show its value and motivation is likely to spread.

Six Core Strategies in the New Zealand context

Other initiatives aimed at changing practice in inpatient settings include restraint and seclusion reduction. To support safe and least restrictive practices, New Zealand aims to contribute to its goal of zero seclusion by reducing seclusion rates in adult mental health inpatient units in

participating localities to 5 percent or below by December 2023 (Health Quality & Safety Commission New Zealand, 2022). The six core strategies present evidence-based approaches that effectively reduce incidents of seclusion and restraint and are used in the United Kingdom, Canada, Australia and Finland, and were adapted to the New Zealand context initially in 2013 and then refreshed in 2020 (Health Quality & Safety Commission New Zealand, 2022). Not dissimilar to Safewards, guidelines for planning, implementation and evaluation of the Six Core Strategies within services are provided online by (Te Pou, 2020), including checklists and online resources. One of Dawson's (2020) recommendations for implementing the Safewards model in New Zealand is to embed Safewards within the Six Core Strategies that already exist within services. The Six Core Strategies from Te Pou (2020) have direct comparisons with Safewards, with each strategy reflected in the findings of this analysis. These comparisons are demonstrated in table five.

Table 6: *Six Core Strategies and Safewards enablers comparison*

Six Core Strategies	Safewards enablers
Leadership towards organisational change, which emphasises the important role leaders and managers have in promoting least restrictive practice initiatives.	Strong leadership engagement to support champion roles and demonstrate to staff that Safewards is valued. Role-modelling by leaders to support staff engagement and implementation.
Full inclusion of lived experience, to ensure participation and partnership of people with lived experience in service design, delivery and quality improvement.	Collaborative engagement with service users may be critical to enhance implementation. Involving service users helped make interventions a success and sustain the Safewards model.
Using data to inform practice, this promotes evidence-informed practice to improve outcomes.	To give insight into effective and sustainable interventions there needs to be a regular evaluation of coercive data, including frequency and duration.
Workforce development, the necessity for all staff to have the skills, knowledge, values and attuites to respond effectively to distress.	Mandatory training is recommended. Training showed a positive effect on staff knowledge and ability to implement Safewards.
Use of seclusion and restraint reduction tools, outlines utilising therapeutic relationships and least restrictive interventions, including sensory modulation and cultural healing to support people.	Safewards interventions outline tools to reduce flashpoints and the need for restrictive practices, including sensory modulation, and encourages therapeutic engagement.
Debriefing techniques, making positive changes through reflection and analysis of restrictive events for future learning and prevention.	Reassurance, Mutual Help Meetings and Bad News Mitigation are all opportunities for reflection and learning for future prevention of restrictive practices.

Organisational change

Inpatient mental health units can be a place of refuge (Duhig et al., 2017) but contradictorily they can also be places of conflict and containment (Bowers, 2014). For the safety and wellbeing of everyone in these environments, it is important to reduce rates of conflict and containment (Bowers, 2014). The Safewards model has been shown in the literature to reduce rates of conflict and containment within acute inpatient mental health units (Baumgardt et al., 2020; Baumgardt et al., 2019; Bowers et al., 2015; Dawson, 2020; Dickens et al., 2020; Fletcher, Hamilton, et al., 2019; Fletcher et al., 2017; Lickiewicz et al., 2021). While the Safewards model has been described as incorporating 10 simple interventions in Bowers et al. (2015), this paper, and the findings and recommendations of other studies, show the complex process of implementing the model in inpatient mental health settings. There is a need to consider change management and managing resistance in this setting for successful implementation.

Interactionist perspectives may help us to understand how to support change among mental health nurses. These perspectives provide an opportunity to see different aspects from an individual or organisation level; explore behaviours and the factors contributing to them; and find a solution (Ferrell, 2010). Interactionist perspectives recognise the influence of group interactions and highlight the potential for meanings to be defined through group interaction (Barker et al., 2015). Safewards education sessions and ward meetings are examples of group interactions and opportunities that encourage the development of shared understandings of the situation by engaged staff, champions, leaders and management.

Management and leaders are complementary roles and contribute to organisational change (Al-Haddad & Kotnour, 2015). Al-Haddad and Kotnour explained that change leaders understand the group's perception of change, support change readiness and ensure change acceptance. They motivate individual responsibility and participation in the change (Al-Haddad & Kotnour, 2015). Transformational leadership supports and sustains change through a process that motivates others through ideas and values and inspires followers (Burns, 1978). When a leader is a role model for staff, resistance to change is likely to reduce (Wang et al., 2001). As organisational change occurs over some time, change must be well planned, given a timeframe and factors affecting change are addressed by leaders (Al-Haddad & Kotnour, 2015); reflecting the findings of this paper.

Limitations

There are limitations of this analysis that need to be considered when interpreting the results of this paper. Safewards literature remains limited and it is possible that some Safewards studies were not included in the search results. Some studies were excluded if they did not meet the inclusion criteria, which included papers and literature that did not relate to Safewards barriers and enablers and were not available in full text or an English translation. These excluded resources may have identified further barriers and enablers to Safewards implementation. Research settings remain mostly limited to inpatient adult services. There is limited inclusion of the service user voice in the published studies. While adaptations are recommended for different settings (Maguire et al., 2022), cultures (Dawson, 2020) and are supported by service users (Kennedy et al., 2019), publications on adaptations are limited.

Conclusion

The Safewards package of 10 interventions was developed from a significant literature review and has been shown to reduce rates of conflict and containment within acute inpatient mental health units. It does this by summarising factors that impact conflict and containment rates and equips staff and service users with modifiers to prevent flashpoints. Bowers et al. (2015) implemented the Safewards model as part of an RCT. Since the original RCT, there have been Safewards publications from around the world in a variety of cultures. While the literature on the Safewards model remains limited, it has shown the interventions to be feasible and to positively impact on least restrictive practice. Current literature reports numerous barriers and enablers but so far these have not been systematically researched.

This paper summarises the barriers and enablers to implementing Safewards within inpatient mental health units from the current literature on the Safewards model. Four categories emerged from the content analysis: (a) Designing the Safewards interventions and implementation; (b) Staff participation and perception of Safewards; (c) Healthcare system influences on Safewards implementation; and (d) Service user participation and perception of Safewards. To support successful Safewards implementation in future practice, this review recommends that Safewards implementation is enabled through: robust design of the Safewards interventions and implementation methods; staff participation and positive perception of the Safewards model; a resourced healthcare system that prioritises Safewards implementation; and service user awareness and participation in Safewards interventions.

Relevance for practice

The ongoing review of the barriers and enablers of Safewards implementation internationally is important for future studies to learn from the recommendations of other studies. Some challenges continue to be faced in the nursing profession, including: staffing levels; experience; turnover; and releasing time to care and attend training. Nursing time must be sufficient to prioritise therapeutic engagement and recovery-oriented care.

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5.2.2 Study two: Implementation and Adaptation of the Safewards Model in the New Zealand Context. Perspectives of Tangata Whai Ora and Staff.

Overview

This research thesis aims to adapt and implement the Safewards model for the New Zealand context. To achieve this goal, it is crucial to analyse the perspectives of key stakeholders on the implementation and adaptation of the model. This analysis is necessary before designing and implementing a Safewards model that is suitable for New Zealand.

The impact of this study is that it begins to bridge some gaps in literature, notably the absence of New Zealand published literature, lack of service user voice and limited studies detailing specific adaptations to the Safewards model. It has clear relevance for practice as that it outlines key themes and considerations that could inform the design of a New Zealand Safewards model, while also indicating that adaption processes could be successful in other settings and cultures.

Title: Implementation and adaptation of the Safewards Model in the New Zealand context. Perspectives of tāngata whai ora and staff.

Authors: Sarah Knauf, Associate Professor Anthony O'Brien and Emeritus Professor Allison Kirkman. Appendix G: Co-authorship form article two.

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Abstract

The safety of service users and staff is paramount in cultivating a therapeutic environment within inpatient mental health units. The Safewards model, originating in the United Kingdom, aims to reduce conflict and containment rates through 10 interventions. This study used participatory action research to explore the perspective of tāngata whai ora and staff regarding the adaptation of the Safewards model to the unique New Zealand context. Such adaptation is critical due to significant health outcome disparities between Māori and non-Māori populations and the disproportionate representation of Māori within mental health services. In adhering to the principles of Te Tiriti o Waitangi, cultural adaptation becomes an imperative obligation. The study utilised qualitative content analysis and thematic analysis, drawing data from focus groups of staff (n=15) and tāngata whai ora (n=3). This study describes a New Zealand Safewards model, which must include Te Ao Māori, align with current practices, adapt Safewards interventions and gain acceptance. Organisational change management is pivotal in the integration of this model into nursing practice. The outcomes of this study hold the potential to contribute to the formulation and implementation of a New Zealand Safewards model, while also bearing relevance for the international adaptation of Safewards to culturally diverse countries and healthcare systems.

Glossary

Term	Definition
Aroha	Love
Aroha mai	Apologies, give compassion
Awhi	Hug, embrace, surround or cherish
Kaitakawaenga	Mediator, arbitrator
Kapa haka	Haka group, Māori cultural group, Māori performing group
Karakia	Recite ritual chants, say grace, pray, recite a prayer, chant
Māori	Indigenous New Zealander, an indigenous person of Aotearoa/New Zealand
Mau rākau	Traditional Māori martial art based on traditional weapons
Pepepha	How you introduce yourself, identifying who you are, where you're from and where you belong
Tāngata whai ora	Person in search of wellbeing. Service user is used in the global context
Te Ao Māori	The Māori world, respect and acknowledgement of Māori customs and protocols
Te reo Māori	Māori language
Te Tiriti o Waitangi	The Treaty of Waitangi, New Zealand's founding document, meant to be a partnership between Māori and the British Crown
Tikanga	Correct procedure, custom
Waiata	Sing, song, chant
Whakamoemiti	Morning meeting to give praise and express thanks
Whakawhanaungatanga	Process of establishing relationships, relating well to others.
Whaanau	Extended family, family group, sometimes used to include friends who may not have any kinship ties

Introduction

Inpatient mental health services play a crucial role in offering short-term assessment and treatment to individuals with severe mental illnesses who pose a significant risk to themselves or others, necessitating a level of care not feasible in the community (Thomson et al., 2019). These services operate within well-supervised, secure ward settings, as outlined by Bowers et al. (2005), addressing diverse admission reasons, including self-harm or harm to others, severe mental illness symptoms, the need for respite and limited community support (Bowers et al., 2005). Such units are integral for ensuring safety, conducting assessments, providing treatment, promoting self-care and addressing physical health concerns (Bowers et al., 2005).

Central to nursing practice within this context is the establishment of therapeutic relationships with service users (Wright, 2021). This principle is evident in studies of inpatient environments where the quality of care hinges on fostering warm therapeutic relationships, respectful interactions, offering treatment choices and facilitating formal or informal therapeutic conversations (Cutcliffe et al., 2015). Beyond the staff's role, the therapeutic environment's influence on an inpatient mental health unit's success is paramount (Donald et al., 2015). Inpatient admission can offer a sanctuary to individuals dealing with significant stressors, providing the essentials of life, human connection, a sense of belonging and an experience of care (Duhig et al., 2017; Kennedy et al., 2019)

These sanctuaries are not immune to conflict episodes, encompassing violence, self-harm, suicide attempts, absconding, substance misuse and medication refusal (Bowers, 2014). Containment, as delineated by Bowers (2014) encompasses the various strategies employed by staff to manage conflict behaviours, including sedative medication, coerced intramuscular medication, heightened observation levels, restraint and seclusion. This dynamic between conflict and containment, where one can precipitate the other, underscores the challenges faced in these settings (Bowers, 2014). In response to these challenges, Bowers (2014) conceived the Safewards Model, aimed at diminishing conflict and containment rates in acute mental health wards, to ensure the safety and wellbeing of both service users and staff (Bowers, 2014).

The Safewards Model encompasses ten interventions (Table 1) designed to strengthen the rapport between staff and service users in inpatient units. Interventions encompass sensory modulation, positive language and communal ward meetings (Bowers et al., 2015; Safewards, n.d.). The model considers various factors influencing conflict and containment rates, including staff modifiers (staff

interactions with service users and their environment), service user modifiers (interactions among service users), flashpoints (potential conflict situations), conflict (service user actions jeopardising safety) and containment (staff actions to prevent conflict) (Bowers, 2014). It derives support from a comprehensive literature review conducted by Bowers et al. (2014) spanning 2005 to 2012, underpinning its evidence-based approach.

Background

Bowers et al. (2014) conducted a comprehensive literature review that encompassed all English language research on conflict and containment from 1960 onwards, involving a total of 1181 papers. Notably, this review laid the foundation for subsequent research initiatives on conflict and containment, with a particular focus on mental health settings. The year 1996 marked the inception of research programs dedicated to this field, including the extensive City-128 study, which generated over 100 peer-reviewed publications (Bowers et al., 2014; Bowers et al., 2008). A pivotal milestone occurred in 2015 when Bowers et al. (2014) conducted a randomised controlled trial (RCT) to evaluate the effectiveness of the Safewards model as an intervention. The results were compelling, demonstrating a 15% reduction in the rate of conflict events and a 26.4% reduction in the rate of containment events (Bowers et al., 2015).

Following the success of the RCT, Safewards publications began to emerge worldwide, with countries such as the United Kingdom, Germany, New Zealand, Australia, Canada, Ireland, Finland, Poland and Denmark actively contributing to the body of work. These countries, each with unique mental health containment practices, embraced the Safewards model, implementing it across diverse hospital settings, including adult, forensic, intellectual disability, adolescent, emergency departments and aged care units. The outcomes indicate that most adult services demonstrated improvements, including reduced conflict and containment rates, improved staff attitudes or the creation of a more therapeutic ward environment (Baumgardt et al., 2020; Baumgardt et al., 2019; Bowers et al., 2015; Dawson, 2020; Dickens et al., 2020; Fletcher, Buchanan-Hagen, et al., 2019; Fletcher, Hamilton, et al., 2019; Fletcher et al., 2017; Higgins et al., 2018; Lee et al., 2021; Lickiewicz et al., 2021; Stensgaard et al., 2018). However, it is essential to note that while numerous studies have centred on inpatient adult services, Safewards' application in forensic settings did not consistently yield significant reductions in conflict and containment incidents (Price et al., 2016).

Despite demonstrating the feasibility and positive impacts on restrictive practices, the literature on Safewards remains limited. Only a handful of studies have ventured into exploring the perspectives of service users, highlighting the need for a more comprehensive understanding of its implementation (Baumgardt et al., 2020; Cabral & Carthy, 2017; Fletcher, Buchanan-Hagen, et al., 2019; Hottinen et al., 2020; James et al., 2017; Maguire et al., 2018; Palviainen et al., 2020). Particularly, there is a significant gap in research focusing on cultural adaptations of Safewards for specific service settings or populations.

For successful Safewards implementation in New Zealand, adaptation to align with the country's unique service and social context is imperative. This adaptation is particularly crucial considering the longstanding disparities in both physical and mental health outcomes between Māori and non-Māori populations (Russell, 2018).In response to these disparities, New Zealand has implemented various initiatives aimed at improving the health of Māori. These initiatives include the establishment of Māori health-care providers, cultural competence training for healthcare professionals, community-led programs, a focus on health literacy and the Whānau Ora initiative (Hobbs et al., 2019).

However, it is acknowledged that beyond these interventions, New Zealand must address historical, cultural and systemic issues that perpetuate inequalities faced by Māori. Centuries of colonisation and systemic racism have led to deep-rooted inequality within the country (Reid et al., 2017; Scott, 2014; Te Rōpū o Whakamana i te Tiriti o Waitangi, 2019). The New Zealand mental health and addiction system fails to provide equitable support for Māori, resulting in higher rates of application of the Mental Health Act including community and inpatient treatment orders (Patterson et al., 2018). Māori individuals are also more likely to experience seclusion and for extended periods (New Zealand Mental Health and Wellbeing Commission, 2022). While Māori make up 17% of New Zealand's population, a staggering 48% of people subjected to seclusion in 2020 were Māori (New Zealand Mental Health and Wellbeing Commission, 2022).

Recognising the need for culturally safe services for Māori, the New Zealand Mental Health and Wellbeing Commission (2022) underscores the importance of cultural, spiritual and physical safety. Consequently, any international model of care, such as Safewards, must be thoughtfully adapted before implementation in New Zealand to accommodate Māori cultural perspectives and address these stark inequities. Models of health and wellbeing rooted in culture offer invaluable insights into cultural values, concepts, practices and processes (Wilson et al., 2021). Utilising these insights,

culturally centred models of care can be developed, with the potential to address these inequities (Wilson et al., 2021).

This paper aims to inform the design of a New Zealand Safewards model by incorporating feedback from inpatient staff and tāngata whai ora. As the lead researcher is engaged in everyday practice in the study setting, the human connection required in the PAR methodology will support the collection of feedback and problem solving (Keahey, 2021). The findings of this study will serve as a crucial contribution to the development of a New Zealand Safewards model tailored for implementation within the unique New Zealand context. Additionally, the insights gained from this research hold relevance internationally, offering guidance for adapting the Safewards model to diverse cultural contexts and healthcare systems. While this research will explore some useful areas of cultural adaptation for New Zealand, the basic architecture of Safewards will remain. Adaptations provide nuance rather than a radical change of the overall Safewards model.

The research questions that this study seeks to answer are:
1. What are the perceptions of inpatient staff and tāngata whai ora regarding the Safewards model?
2. What adaptations are necessary for the Safewards model to effectively align with the New Zealand context?

Methods

To address the objectives of this study, we adopted a participatory action research (PAR) methodology. PAR is a qualitative methodology that entails collaborative engagement with participants to foster exploration and development, as opposed to mere observation from an external standpoint (Bradbury, 2015). This participatory approach aims to foster a stronger and more meaningful bond between care providers, service users and researchers (Dewing et al., 2021). PAR aligns seamlessly with the underlying theoretical framework of our study, which is rooted in the person-centred nursing framework (Ryan, 2022). Furthermore, given the researcher's current employment in the study setting, we incorporate action research characteristics, wherein researchers examine practices within their own institutions (Cohen et al., 2018).

Qualitative research methods are valuable in exploring individuals' experiences in mental health (Crowe et al., 2015). To address our research objectives, this study employed qualitative focus group discussions involving a sample of inpatient mental health professionals and tāngata whai ora. The study encompassed three tāngata whai ora participants and 15 staff members participating

in a total of four focus groups (see Table 2). The research team developed a structured interview guide (see Table 5) to facilitate these discussions, which typically lasted between 40 to 60 minutes. All focus group sessions were audio-recorded and subsequently transcribed for analysis.

To create a safe and culturally sensitive space for tāngata whai ora participants, the tāngata whai ora focus group was hosted by a kaitakawaenga. Tāngata whai ora participants were deemed eligible if they met the following criteria: they were over 18 years of age, had been admitted to the ward setting within the last six months and were proficient in English communication. Recruitment efforts were initiated through ward posters, with interested participants expressing their intent to participate, followed by recruitment by kaitakawaenga. Subsequently, the agreement to proceed with tāngata whai ora participants was sought from the consultant psychiatrist to ensure they possessed the capacity to provide informed consent. Whānau members were also encouraged to attend, either for support or to provide their insights. It is important to note that some participants were excluded due to acute symptomatology affecting their capacity to consent. The inclusion of Māori participants are essential due to their overrepresentation in this mental health service (Russell, 2018). Consent forms were administered and signed before the commencement of the focus group sessions and were collected by the hosting kaitakawaenga.

Two focus groups were conducted with clinical staff, while one focus group was held with managers. Staff members were invited via email by the ward administrator, who supplied a participant information sheet. Eligibility criteria for staff participation included current employment in the study setting. Invitations were extended to members of the multidisciplinary team, including psychiatrists, registrars, house officers and social workers. Consent forms were collected by associate charge nurse managers before the start of staff focus group sessions. As consumer advisors were not employed in the setting during this period, the researcher facilitated the staff focus groups.

In terms of data analysis, both thematic and content analysis techniques were employed to extract meaning, organise data and construct a coherent narrative (Crowe et al., 2015). The key difference between content analysis and thematic analysis is that content analysis explores data using a predetermined framework while thematic analysis develops codes and categories from the data and further explores the categories to create themes (Crowe et al., 2015). By using a two-phase approach involving both content and thematic analysis, we aimed to comprehensively examine and interpret the data gathered in this study.

In phase I, a qualitative content analysis was employed to systematically explore responses to predefined questions related to the 10 Safewards interventions. This analysis followed a deductive approach, as it was informed by a pre-existing framework, specifically the 10 Safewards interventions. Krippendorf's (2004) six steps of content analysis were followed, encompassing unitising text, sampling units, coding units, data reduction, drawing inferences and narrating findings.

Thematic analysis was utilised in phase II, following a data-driven, inductive approach to identify codes, categories and themes from raw data extracted from the focus group discussions (Clarke & Braun, 2017). This process adhered to the six phases outlined by Braun and Clarke (2006), including familiarisation with the data, generating initial codes in NVivo, identifying themes, reviewing and refining themes and ultimately reporting the findings. Categories and themes were independently reviewed and discussed until a consensus was reached.

Ethics

Ethical approval for the study was obtained from The University of Waikato Human Research Ethics Committee (HREC(Health)2021#97), the Waikato DHB (District Health Board) Research Office (RD021106) and the Waikato DHB Māori Research Review Committee.

Results

Firstly, the separate narratives of both staff and tāngata whai ora related to the 10 Safewards interventions are summarised, with illustrative participant quotes. The results are based on the 10 interventions, with an additional discussion included for responses to the overall Safewards model. Participant quotes from tāngata whai ora are shorter and more general, as tāngata whai ora preferred to discuss how they wanted staff to behave towards them rather than follow the set question format. Secondly, the themes that emerged from the thematic analysis across the Safewards interventions are presented. The themes are presented in Table 4 and are organised under the three themes that emerged from the analysis: (a) creating a New Zealand Safewards model; (b) implementing a New Zealand Safewards model; and (c) overall aspects of the New Zealand Safewards model.

Phase I: Perception of Safewards

Staff perceptions

Clear Mutual Expectations

Staff recommended that a statement of Clear Mutual Expectations be displayed as five points or less, reducing the words and being displayed at multiple locations to ensure people have access to it. Keeping the statement of expectations current was seen as important to staff, who considered that it needs to be adaptable and reviewed regularly. One participant stated: *"With things like this, you want to embed it"*. Recommendations for embedding the expectations included raising them in morning meetings, including them in an admission welcome pack, reinforcing expectations during admission and ensuring everyone is aware of the expectations. Clear Mutual Expectations may be incorporated into their individual care plans, one staff member said: "*I think this is a very good start for those individualised plans we make as well for some of our tangata whai ora, you know that have difficulty with their boundaries"*. It was viewed as important that kaitakawaenga be involved in statements of Clear Mutual Expectations.

Soft Words

Staff felt that a Soft Words poster should be creatively displayed to draw attention to it, including emphasising the space and changing it weekly; one staff participant described: "*If you change things, if you rearrange things then it's noticeable"*. The poster was recommended to be included as part of morning meetings. Displays in staff areas were suggested to be in the staff office, including prompts around computer screens. However, some staff felt that the staff office was too busy and a suggestion for the staff lunchroom was also made. In contrast, some staff felt that the display only needed to be in staff areas. A staff participant said: *"Because depending on their state of mind…it depends on whether it's gonna be positive or just something else to talk about. Or argue about"*. Others disagreed, stating that tāngata whai ora should be able to see the poster too. This would support the intention that Soft Words are demonstrated by the staff and reciprocated by tāngata whai ora. Participants recommended encouraging the involvement of coordinators and staff from other areas in this ward language.

Talk Down Tips

Talk Down Tips was recommended for inclusion in the staff orientation package. A poster conveniently displayed for all staff, tāngata whai ora and whānau to read was suggested. The display could include the staff office and the ward's health and safety display board. For the display, using the same font and a Safewards logo was felt to help link all the displays together. Changing the name to de-escalation or emotional control was felt to be better suited. A staff participant said: "*I*

call it de-escalation, yeah because that's what you're trying to do de-escalate". Not arguing and demonstrating patience were two important practices identified for this intervention.

Positive Words

Positive Words were felt to be a verbal intervention, not one that needed documenting in clinical notes. One staff participant identified that it was a team strategy, whereby staff can: *"Prompt people to do it [Soft Words] more"*. Other participants thought it would enable them to appreciate when staff implement this intervention and work with people not implementing it. If Positive Words are identified for specific tāngata whai ora and are relevant to future care, staff could document it.

Bad News Mitigation

The Bad News Mitigation poster was felt to be a good step chart for staff who do not know it. One participant said: *"I mean, it's just putting it into language about what we do"*. A staff participant felt it was positive that everyone was on the same page for this intervention, explaining: *"You're prepared…you're thinking ahead potentially what may happen"*. Another agreed, saying: "*We've got things in place already and we'll just go with it"*. One staff participant felt that this intervention needed to be made: *"A culture, something that's embedded"*. It was recommended that Bad News Mitigation be incorporated into safety huddles[3]. Bad News Mitigation was also felt to feed well into Clear Mutual Expectations. The other staff feedback was centred around important values to highlight in this poster: do not give false hope; manage the environment; have a plan; protect co-client exposure; think ahead and be prepared; negotiate; give control; and that the de-escalator should not have been the escalator.

Know Each Other

This intervention was recommended by staff to be a wall display, as it was felt that a booklet would not be picked up. A booklet on staff was felt to be a strange concept. Know Each Other was felt to be a more beneficial display than an existing mural or a mandatory display of ward audits. There were concerns raised about a wall display: it takes time to create and maintain; it takes up ward space; it could be defaced; and it may cause paranoia. The positive features of a wall display were that it could be a ward activity and form a whole piece of artwork and it is good for whānau to see it. One staff participant suggested: *"I think it's a good idea. I think [activities facilitator] can do it as one of his activities."* A different display for staff and tāngata whai ora, something short and simple with a display behind a protective screen was suggested. Staff highlighted the importance of music for tāngata whai ora and connecting through favourite bands. The need to include staff from the relief

[3] Short meetings held at the start of each shift to discuss any potential safety risks in the healthcare environment; involve multiple disciplines and follow a three-point agenda (NSW Government, 2017).

staffing bureau was highlighted. Some staff were apprehensive about including a photo of themselves but felt an alternative image could represent them. One staff participant felt that this could be a verbal intervention rather than a display and could be incorporated at the morning meeting:

> *So is that something that's probably better to do then, like a meeting with the clients in the morning kind of setting. When you just do that together because the people change all the time, as opposed to having a folder…it's too high turnover.*

Mutual Help Meeting

A staff participant suggested that Mutual Help Meetings could be: "*An activity on the ward mornings"*, occurring morning or afternoon Monday-Friday. Staff and tāngata whai ora would need to know when it was hosted, as part of a general ward timetable. The intervention may be a role for an activity facilitator, but it is also everyone's responsibility for it to occur. Managers could delegate a host in the morning handover and all staff need to join and share things. It could be hosted with whakamoemiti, involving kaitakawaenga. One participant described: "*If you didn't give it some delegation no one would do it"*. It could occur every morning after breakfast in a dining room, arranged in a circle. Clear Mutual Expectations could be set within this meeting. It was important to note that a similar meeting was unsuccessful in the past and would need learning from.

Calm Down Methods

Staff suggested renaming this intervention to sensory modulation, calming supports, relaxation methods or distraction therapy. One participant said: "*If someone told me to calm down, I'd feel insulted"*. They wanted sensory items accessible, for example by including them in a welcome pack on admission, providing packs to keep in the low stimulus area (LSA), storing sensory items in the office and providing a photo menu so that tāngata whai ora knew the contents of the box. Staff felt that they needed education on sensory modulation and thought instructions could be made available in the tāngata whai ora menu. It was put forward that these items could be organised into designated boxes, such as music, exercise, or cultural kits. Learning from history, staff were aware that they would need to take responsibility to stay on top of the stock. A staff participant reflected that: "*Because I, every three months I buy new sensory stuff…but it'll be gone by the end of the month"*. This comment suggests the need for: a healthy budget; a sign-out book; storing under CCTV in staff areas; and performing daily checks on stock and maintenance needs

Reassurance

Staff preferred the term debriefing for this intervention. A staff participant explained: "*Because reassurance is what you do all the time…they're talking about actual conversation and debriefing after incidents"*.

They felt it could be integrated well with Soft Words and their existing practice of DASA (Dynamic Appraisal of Situational Aggression) (Ogloff & Daffern, 2006). Staff believed that this intervention should be documented, as formal documentation means that it will be followed through. Documentation could also detail any strategies that were identified as helpful for people to cope and could be used by other staff in the future. One staff participant said: "*Because you want it as part of strategies to prevent".*

Discharge Messages

From their experience, staff highlighted that tāngata whai ora "*Love*" activities like this intervention. Staff saw Discharge Messages as being a ward activity that could be scheduled on the activity timetable. Staff identified that there would need to be education on the purpose of the intervention for tāngata whai ora and regular monitoring of messages to ensure they fit this purpose. The display was thought to be beneficial by one staff member if it was: *"Somewhere where it's, everyone can see it. Like, where our tangata whai ora sit out".* Defacing of the display was identified as a barrier, but if it were a regular activity staff felt positive that it could be redone if damaged. One staff participant clarified that: "*I mean that [destruction] happens from time to time you can't sort of foresee it or predict it really so yeah as you say just redo it".*

Safewards model

Reflecting on the Safewards model overall, staff recommended more family engagement. One staff member specified: *"More whānau involvement, especially in the admissions".* On admission, a Safewards summary handout for tāngata whai ora was suggested. Staff felt that publishing these in English was better due to the low rate of fluency in te reo Māori amongst tāngata whai ora. Visual displays around the ward were proposed by a staff participant to *"Remind people"* about Safewards. The repeated advice was that the model is embedded into routine practice and a cultural change supported. The Safewards model needs to be flexible and change as required. Involving coordinators and the relief staffing bureau would be important to communicate intentions to all staff. One staff participant acknowledged the importance of capturing all staff "*That come and go on our ward".* Finally, staff highlighted that interactions with tāngata whai ora are de-escalating and should be encouraged.

Tāngata whai ora perceptions

Clear Mutual Expectations

Tāngata whai ora had several recommendations for mutually expected behaviours including: acting with integrity; apologising; forgiving; respecting; smiling; and walking away from triggering situations. From staff, tāngata whai ora expected to be: acknowledged, given time and create *"An*

individual personal plan". Tāngata whai ora prioritised sleep, access to music and access to mobile phones. Tāngata whai ora recommended the establishment of a daily routine and the encouragement of everyone to deal with rubbish and general ward tidiness.

Soft Words

Soft Words was described by tāngata whai ora as: *"A two-way thing"*. where aroha, compassion and kindness are portrayed to one another. Music was again identified as a therapeutic intervention by tāngata whai ora.

Talk Down Tips

Tāngata whai ora felt that there were too many words on the Talk Down Tips poster. They felt that focusing on the three central points (delimit, clarify, resolve) could be used to simplify the poster. They recommended that the poster be displayed in communal areas for everyone to see. They want staff to: listen; explain the reason for saying no; keep their word; and get someone else to meet their needs if one staff member cannot. Overall, they felt that staff should not need reminding of these behaviours. One participant expressed: "*You know what I think instead of all this? Just listen. If they ask for [something], if you can, I think you should. But if you can't, you need to tell them why you can't"*.

Positive Words

One tāngata whai ora felt that Positive Words show that staff care and can identify their improvement, saying: "*That's nice to know. At the end of the day, they do still feel that emotion for everyone. And that they can say he was a bit of a humbug at the start of the day. But at the end of the day pulled his head in. That people do care"*.

Bad News Mitigation

To support Bad News Mitigation, tāngata whai ora advocated that a third-party support person, either someone neutral or in charge, was called in to oversee this intervention. One participant explained: *"It's always good to have someone backup, back you up or there to sight, to see what the person is going to do as a witness. It's always good to have that person, have someone their equal, to know what the real story is, that the patient doesn't get accused"*.

Know Each Other

To facilitate tāngata whai ora knowing staff, they recommended everyone wear name badges. They also proposed that: "*Everyone comes to whakamoemiti and not just us or one person, everyone comes. Everyone involves themselves"*.

Mutual Help Meeting

Tāngata whai ora brainstormed several agenda items for a Mutual Help Meeting, including singing the National anthem and raising a flag. They felt that incorporating Te Ao Māori into this meeting was particularly important. Tāngata whai ora thought that this meeting was a good opportunity for everyone to learn that the ward's goal is a safe ward and for everyone to know that the ward's focus is to aroha and awhi one another. A participant said that: staff "*Can help us help each other*".

Calm Down Methods

Tāngata whai ora listed several interventions that may help people in times of distress. In terms of ward activities, they believed it was important that everyone attends them for people to be kept busy. Creating a ward routine was suggested to give some responsibility back to tāngata whai ora. A tāngata whai ora suggested: a *"Designated day for cleaning"*. Regarding technology, tāngata whai ora wanted access to mobile phones, the internet and PlayStation. Te Ao Māori based activities tāngata whai ora would enjoy included harakeke and mau rākau activities. Other sensory items or activities suggested were: music; treats and sweets; Rubik Cubes; Jenga; enjoying nature; and fidget spinners. Cigarette smoking was identified as calming for tāngata whai ora. A participant described: *"It calms everyone down but then when they ain't got a smoke they uncalm"*.

Reassurance

Tāngata whai ora feedback on Reassurance was that it felt nice for staff *"To come to you",* it was reassuring for them to *"Know that they're there"*.

Discharge Messages

Little tāngata whai ora feedback was provided on Discharge Messages aside from a comparison by a participant to a *"Family tree…and it stands on a foundation"*.

Safewards model

In general feedback on the model, tāngata whai ora wanted everyone to be *"Like-minded"*. They felt that everyone should know the ward's mission "*Statement*". They identified aspects of the Safewards model which could include Te Ao Māori but felt that, beyond having greetings in different languages for inclusiveness, Safewards handouts and displays should be kept in English.

Phase II: Themes across interventions

Creating a New Zealand Safewards model

Several themes (Table 4) were developed from thematic analysis and refer to the creation of a model of care, with participants making suggestions on key values to incorporate, characteristics of a safe ward and how the model is shown to staff, tāngata whai ora and whānau.

Identify key values

Staff and tāngata whai ora identified what values were important to reflect in a New Zealand Safewards model. Mutual respect between staff and tāngata whai ora was mentioned in focus groups when discussing Clear Mutual Expectations and Soft Words interventions. Described as a "*Two-way street*" and "*Seeing eye-to-eye*" for staff and tāngata whai ora to "*Demonstrate*" and "*Reciprocate*" respect as a "*Mutual understanding*".

Because it's not only how we talk to our tāngata whai ora, but how we talk about people between ourselves and with other clinicians and I think language and how we communicate is quite important. Staff

Kindness was suggested as being a key value within soft word posters. This intervention was summarised by tāngata whai ora as "*Just show a bit of aroha and compassion to each other*". "*Just kindness, it's just being kind*". A ward motto was suggested by tāngata whai ora so that people "*Know what we're all about, our main focus*". "*The motto might be aroha…our main focus is to awhi or aroha mai*".

Have the kaupapa so everyone knows that safer wards means manaakitanga or whakawhanaungatanga…have your statement. Tāngata whai ora

To avoid conflict, staff "*Being patient*" was a value raised in focus groups. This was closely linked to staff "*Having time to listen*" to tāngata whai ora. Instead of an in-depth Talk Down poster, one tāngata whai ora felt the entire poster could be replaced with "*Just listen*". One tāngata whai ora described their experience with some staff as that they "*Try to police…they try to be like authoritative, like a policing regime*" and that "*Sometimes the staff need to back down a little bit*". Some engagement was described as "*Sarcastic*" and others were perceived as threatening, for example when one staff member asked, "*Oh, do I need my duress*[4]?".

When considering Bad News Mitigation, the importance of being prepared was highlighted. Staff felt that by "*Thinking about what may potentially happen*" they could "*Be prepared*" and "*Manage the environment*". Staff believed that by not giving tāngata whai ora false hope, they were helping to mitigate bad news. "*Negotiating, giving them that sort of control*" was also identified as a helpful Bad News Mitigation tool. Tāngata whai ora identified that sometimes conflict can happen on the ward and forgiveness is a powerful value. "*Forgive and forget*" and "*Not hold a grudge*" if people make mistakes. Rather, "*Just say sorry*", "*Move on and makeup, even shake hands and say I'm sorry*". This suggestion links to the recommendation from service users in Kennedy et al. (2019) for staff to include an apology as part of a debrief intervention.

[4] Small electronic devices worn on staff members that can be activated to call for help in the case of an emergency (Tunstall, 2022).

You're sort of just being cautious about what may happen, it may not happen and that's great. But if it does, you're in an area that's not going to have other patients see what's happening. Staff

Te Ao Māori values were raised in tāngata whai ora focus groups when discussing Know Each Other. Singing during whakamoemiti is a "*Place to express yourself fully*" and give "*Energy*". It is a place where "*You can feel you can connect with people that are carrying it [tikanga] on*". Participation links to these values, where tāngata whai ora felt that there should be a "*Rule that everyone must participate no matter if they just sit there and stare at the wall…every little step you take is progress to get to a new place*". Connecting with Te Ao Māori values, the process of welcoming tāngata whai ora and their whānau onto the ward was identified as being necessary for a New Zealand Safewards model with "*More whānau involvement, especially in the admissions*" and "*Welcome packs*" recommended by staff.

…it's [tikanga Māori] something we don't want to lose that we shouldn't ever lose, or you know? Tāngata whai ora

Support a safe environment

When discussing Bad News Mitigation in focus groups, environment management was considered by staff to be a key component of planning the delivery of bad news to tāngata whai ora. Environment management included ensuring "*There are less people [tāngata whai ora] around*" to protect privacy or if bad news was being delivered, considering the need to "*Take people [staff]"* to meetings or have "*Other people [staff] outside*" the room. The staff also considered that the place in which tāngata whai ora are given bad news is important to plan, including moving the person "*Into maybe the courtyard first before we deliver that*" or another private area. Bad News Mitigation aligned with an existing ward practice, staff safety huddles, where conflict and containment reduction are planned.

We're getting prepared for it, you know, even just having the space for everyone to slow down to check what's happening over there. Like bringing [tāngata whai ora] over, clearing a room out where he'll be okay, because he's likely to challenge everyone or disrupt that space…just sitting back and watching him and not communicating with each other was, having to kind of arrange that within that space. Staff

The tāngata whai ora focus group provided recommendations for Safewards that focussed on increasing staff engagement with them. Soft Words initiated feedback from tāngata whai ora about the process of saying no to requests. They felt that "*Doing notes*" was often a response to why the answer no was given. It was identified as important to tāngata whai ora that if staff cannot meet requests, then staff "*Need to tell them why you can't*" and "*Don't beat around the bush, just get to the point*".

It could be, I am unable at this time to, you know, or maybe not now. No is a quick word. Everyone is used to saying no. Tāngata whai ora

The environment needed for Mutual Help Meetings was discussed in a staff focus group, where a "*Delegated area*" and a more formal seating area are set up "*To make it more of a clinical space so that people feel like they're actually doing part of their recovery*". A "*Circle*" was recommended as tables in the dining room area "*Allow barriers*" but a circle setting might invite more people in and "*Make it more of a thing*". An environment where staff are role-modelling participation was recommended.

And I think it's good when staff join in, you know, even if it's voluntary, just to show that you know, they're all there together…it's supportive for everybody if they join in even if they're just standing there. Staff

An environment integrated with sensory modulation was discussed in focus groups when reflecting on Calm Down Methods. A sensory pack that is provided to tāngata whai ora on admission was suggested by staff. Tāngata whai ora and staff both identified music as an effective calming tool. Other tools mentioned were massage chairs, connection with nature, MP3 players, fidget spinners, Jenga, flax weaving, PlayStation, playing sports and access to the internet and cell phones.

I think every patient should have, just if you're in LSA you should have like a pack…here's a stress ball, here's some smellies, here's is a thing, have that. Because a lot of these things, no one knows how to use them. So, you might as well just give it to people and let them kind of experience it. Staff

Bit of music in the background always makes me feel good. Tāngata whai ora

When discussing Mutual Help Meetings keeping busy and having a purpose were identified by both staff and tāngata whai ora to reduce conflict. An example was cleaning, where staff felt that sometimes cleaning helps as a "*De-stressor for them [tāngata whai ora]*". Tāngata whai ora spoke about

"*If there's rubbish…pick it up*" and "*Play your part*". In contrast to keeping busy with activity, tāngata whai ora fed back that they "*Haven't had an activity*" since they had been in the hospital.

Yeah, and I think it's, it's more than just mutual help because people really want to feel helpful as well. You know, they really like to contribute at times to their environment and vacuuming floor and some of our tāngata whai ora really like to help. Staff

Risk management was identified as a key component of a New Zealand Safewards model as "*Safety is our main issue*" in the study setting. "*Being prepared*" and "*Planning for the worst*" was recommended by staff to manage risk. In terms of Bad News Mitigation, one staff member recommended that "*The person in doing the mitigating shouldn't be the person who's also been the escalating path*". There was also a consideration for the delivery of Calm Down Methods in a safe mode as "*It depends on their risk*". One staff member was concerned tāngata whai ora "*Might use it as weapons*" and other staff described that tools provided can be individualised and informed by a risk assessment. A staff member felt that there may be some risk of paranoia in Know Each Other "*If their information is out there*" for others to see. A staff member described how a similar Mutual Help Meeting used to occur but was stopped due to acuity as people were not sharing the time, talking over one another and it became "*Two parties aggravated and both of them leave and you get nowhere*". There was also a risk identified that vulnerable participants would overshare in these meetings and it was highlighted that "*Sometimes it can't happen safely*".

I think the primary issue for health and safety on this ward is violence, isn't it and aggression and assault? Staff

Adapt Safewards communication

Communal walls display of Safewards interventions, including Mutual Expectations and Discharge Messages, were recommended by staff to be displayed "*Everywhere*" and "*Where everyone can see it*". Communal displays mean "*People would look*" and can "*Refer back to it*". But there was also a need identified to "*Protect it from being pulled apart*" as "*Some people when they're unwell destruct stuff*".

This is all stuff we've; we've tried a few times…but the problem with like even putting anything on the walls is that it's got a two-week shelf life. Staff

They [tāngata whai ora] should know as well what staff are trying to achieve, I mean, staff know what they're trying to achieve but not always do the whānau know. Staff

There were recommendations from staff to remove clinical audit information, including seclusion hours, off the walls and replace it with Safewards interventions. Safewards displays were suggested by staff to have a consistent appearance in terms of "*Font*" and "*Logo*" so "*It's obvious that this is part of the Safewards program*". Know Each Other booklet divided staff opinion, with not everyone agreeing on a booklet format being successful. Staff recommended a wall display and several others thought that it should be a verbal exercise in morning meetings as it would "*Stimulate conversation in a group*" and people could "*Share experiences*". To support the awareness of wall displays, staff felt that engagement with tāngata whai ora needed to include checking if they had been informed of the Mutual Expectations so that they could be reinforced or tāngata whai ora could give feedback on whether staff are meeting the expectations as well.

To support verbal engagement, a key suggestion was that staff prioritise and attend a morning meeting so that you can go through "*That whakawhanaungatanga at the end. So, you know who [staff] is on [duty]. Can even have a korero [talk] about who is your nurse is for the day*". The suggestion that "*Everyone comes*" to a Mutual Help Meeting was identified to "*Break the barriers to the walls…let your guard down*". They felt that this group engagement would be effective in "*Supporting the patients and supporting the staff too*". Similarly, with Reassurance, it is comforting for tāngata whai ora to "*Know that you're [staff] there"* and "*It's good to know that people care*". Staff agreed, acknowledging that it is supportive for all staff to attend to show that "*They're all there together*".

…when you're building a therapeutic relationship…you give a little something… and that's when you build that relationship, and it's a verbal thing. Staff

Some interventions were felt best to be displayed in staff-only areas, including Soft Words and Talk Down Tips. The staff room was fed back as a convenient area where staff would casually look at information over lunch but some staff disagreed and felt this was an area that would get lost and people wouldn't read it there. "*Changing*", "*Rearranging*" and "*Emphasising*" communal displays were felt to be more likely to grab people's attention. Handover periods referring to Soft Words each week to highlight it was suggested. Safewards information, particularly language, also needed to be shared with visitors, out-of-hours staff and coordinators.

We're getting such a broad range of cultural staff coming through, it's good to have that expression [Talk Down Tips] there available for all staff. Staff

Most staff agreed that few interventions require clinical documentation but information such as any Reassurance provided and required follow-up needed documenting to "*Be formal and followed through*". Bad News Mitigation success may also benefit from documentation so that other staff are aware of effective "*Strategies to prevent*" conflict and containment.

Implementing a New Zealand Safewards model

The remaining subthemes were based on the recommendations of participants for the implementation of a New Zealand Safewards model to create change and embed interventions into daily practice.

Create a change environment

Creating a change in practice was seen as dependent on staff time. Staff described that it is "*Just a matter of whether we can do it sometimes*". It was seen as important by staff that a Safewards model would not "*Make a lot of work for people*" for it to be implemented successfully. Reflective on these recommendations, previous changes in practice were identified to have "*Started and then we get too busy and then we lose everything*". Safewards Know Each Other displays were recommended to be as minimally "*Labour intensive*" as possible for staff fidelity to the intervention. The importance of staff attendance at Mutual Help Meetings was acknowledged by all staff focus groups but the theme of "*If they're [staff] available*" was repeated. Tāngata whai ora identified the need for staff to have "*Time to listen*" to them. Staff being "*Busy*" and having "*To do paperwork*" was described as tāngata whai ora as negatively affecting nursing care.

That just depends on the staffing, and who's going to be designated that to do and if the staff are all able to meet at that time and do it. Staff

You need to change a lot. Tāngata whai ora

Connecting change with what was already occurring in practice was seen as important by staff. Staff felt that "*A lot of it [Safewards] is what we already know*" and "*We do a lot of it anyway*". When introduced to Safewards, staff felt "*That's what we do, it's not reinventing the wheel*". The staff viewed the model as "*Just putting it into language about what we do*". Staff felt positive that the Safewards model was putting current practice "*Down so it becomes a model*" "*So they become more routine*". The current, but irregular practice of safety huddles, was identified by staff as connecting well to Safewards interventions, particularly Bad News Mitigation, where staff come together and "*Look at how they're managing that day before it gets out of hand*". Effective coping strategies were suggested to be documented in the existing DASA plans in clinical notes to prevent aggression. Mutual Help Meetings were linked with the existing ward meeting, where staff would be "*Facilitating this in that space*". Mutual expectations were felt to be already occurring in practice through fixed ward rules

as "*Part of keeping people safe in the environment*". However, these are staff rules for tāngata whai ora, not mutual expectations. Feedback from the staff was that Safewards interventions were reflective of practices that "*Used to be*" or practices previously attempted. Creating change to successfully implement Safewards was therefore not just about connecting with current practices but also learning from why similar practice changes have been unsuccessful in the past "*Because we're very good at losing stuff*".

You haven't introduced anything new right? You're just refocusing. Staff.

Creating change can be dependent on staff attitudes. During staff focus groups there was positive feedback about the Safewards model. "*There's some good stuff*" on the Mutual Expectations poster. These expectations were suggested to be a "*Very good start of those individualised plans we make*". Finishing handovers with something positive was seen as "*Really important. That's what we don't have enough of here*". Know Each Other was thought to be a "*Good idea*" and helps "*To know who's who*". Tāngata whai ora agreed with this, identifying that they could "*Vibe*" with staff about similar interests. Discharge Messages were liked aesthetically, as it "*Looks quite nice on the wall*" and "*Looks cool*". Staff felt that from experience, tāngata whai ora will enjoy writing and seeing Discharge Messages, "*The patients will love it*" and "*People like to give messages…people that would really like to say something*". Talk Down Tips was praised for being a "*Very quick tip thing*" for staff. The structured Mutual Help Meetings were thought to likely "*Stimulate conversation in a group*". Tāngata whai ora felt these meetings were "*Supporting the patients and supporting the staff too*". Interventions were recognised as linking well to one another. It was anticipated that the model's positive language and emphasis on least restrictive practices would assist in decreasing the pre-emptive planning of seclusion use upon admission before the tāngata whai ora has even arrived. The Safewards model was commended for being "*Flexible*" and "*Fairly straightforward*", "*It's very exciting*".

Yeah, you [staff] can help us help each other. Tāngata whai ora

Negative staff attitudes towards Safewards could be a barrier to implementing the model. Staff often did not like some of the language used in the United Kingdom Safewards model. Staff were reluctant to share a photograph of themselves for Know Each Other due to "*Personal*" reasons or hating "*Photos taken*" of them. Other staff described a booklet on staff as "*Weird*". One staff member reflected that "*Staff just go absolutely crazy*" when you talk about their personal information. Know Each Other for tāngata whai ora was thought to be "*Helpful for some clients and then for others, that would be quite demeaning and belittling because it would be like, preschool therapy*". Not all staff agreed that Soft Words should be displayed in communal areas as the displayed messages may be something to "*Argue about*" "*Every time you step on a toe*". Talk Down Tips was felt to be a poster

that "*You're either going to do it or you're not. You can either plan for that and go through that or you'd just absolutely ignore it*".

The people that probably need to take these [interventions] on board are going to struggle or are going to dislike it. Staff

This [Talk Down Tips] is not something that they [staff] should need reminding of. Tāngata whai ora

Manage organisational change

Delegating staff roles was identified by staff as creating a positive influence on implementing change to ensure Safewards interventions were applied. Several staff identified that an activities facilitator could host several interventions, including Mutual Help Meetings and Discharge Messages, as part of their weekly ward activity schedule. The morning shift, with additional staff and multidisciplinary team members, was felt to be a shift more conducive to hosting a Mutual Help Meeting with staff and tāngata whai ora. This intervention was felt to be more likely to occur if a staff member was delegated each day to host it. Staff "*Voicing*" and making others aware of Mutual Help Meetings and reminding each other of Safewards interventions was seen as beneficial in encouraging other staff to attend and support intervention fidelity. Involving kaitakawaenga in implementing Safewards was likely to support change and Safewards' success.

If you didn't give it some delegation no one would do it. Staff

Regular review and evaluation of interventions were seen as a priority by staff. Staff saw the need to "*Monitor*" Discharge Messages to keep them consistent with the purpose of the intervention. Having a "*Process of checking*" the stock and condition of resources for Calm Down Methods daily was identified as a necessary step to not only identify what has gone missing but to "*Do something about it*". Mutual Expectations were described by staff as needing to be "*Fluid, it should be all the time*". Reviewing these expectations was important to ensure "*You make it current*". The Safewards model was seen as needing to be "*Flexible*". Regular reviews and Safewards' ability to be altered allow the model to have "*Any adjustments you need to make*".

I think it's got to be sort of open to changes its sort of open book. What doesn't work you might have to change that until you get it right. Staff

Embedding the Safewards model into daily practice was seen as an effective way to promote organisational change because "*Unless you change that culture, then it just goes back*". Embedding Safewards in daily practice would ensure that "*Everyone is on the same page*". To support the embedding of Safewards into the ward routine, providing structure was identified by staff and tāngata whai ora as beneficial for the ward. Knowing when Mutual Help Meetings were occurring and delegating an area for them to occur was believed to support staff and tāngata whai ora

attendance. Encouraging everyone to attend and contribute to these meetings is about "*Changing the culture on the ward*". Developing a Safewards model was viewed by staff as positive so these practices "*Become more routine*". Beyond the ward, it was also important to staff "*How you share that [Safewards] to other people that come and go on our ward*".

I think with things like this, you want to embed it. Staff

Overall aspects of a New Zealand Safewards model

Additional themes were developed from thematic analysis across the interventions and refer to incorporating Te Ao Māori, staff hesitancy, consistencies with existing practice, suggested adaptations and overall acceptance of the model.

Incorporation of aspects of Te Ao Māori to support implementation

The need to incorporate Te Ao Māori, tikanga and te reo Māori into Safewards implementation soon became apparent in focus groups, particularly with tāngata whai ora. Concepts that were raised, either directly or indirectly, by staff and tāngata whai ora are described in Table 3. Kaitakawaenga who participated in focus groups suggested several key aspects that would support Safewards implementation. They recommended increased participation of whānau, especially on admission. Kaitakawaenga also felt that communal Safewards displays were important for staff, tāngata whai ora and their whānau to see the Safewards kaupapa. Kaitakawaenga emphasised the importance of staff participation, encouraging all staff to attend whakamoemiti so that tāngata whai ora knew who was on, could korero with their nurse and go through whakawhanaungatanga with everyone. Getting to know each other verbally was recognised as important. Traditional practices of mau rākau and waiata were identified as ways to connect and uphold Te Ao Māori.

Hesitancy to embrace Safewards interventions

Staff expressed concerns about adopting Safewards interventions. Some staff had negative perceptions of certain displays and handouts, such as Know Each Other, Soft Words and Mutual Expectations. They felt that there was not enough wall space and that the content was too wordy, which could make it difficult for unwell tāngata whai ora to concentrate on them. Know Each Other booklets were considered by some staff to be not worth creating, as they would not be read. Some staff were uncomfortable with the idea of having their profile in a book and declined to include a photo of themselves. Sharing personal information made them feel uneasy and some tāngata whai ora might become paranoid. Staff preferred to get to know tāngata whai ora on a one-on-one basis and believed that some interventions could be demeaning. They also argued against some verbal disclosures, citing experiences of vulnerable tāngata whai ora oversharing at communal meetings and poor attendance rates by staff and tāngata whai ora. Staff availability was

also a factor, as they did not want to take on additional work. Some felt that the displays were unnecessary and that the information was common knowledge. Soft Words and Talk Down Tips were deemed more appropriate for staff-only displays as the information could potentially trigger arguments. Communal displays were also contested as some patients could become destructive. The idea of delegation to roles such as kaitakawaenga and activity facilitators was discussed rather than ward staff taking ownership of the interventions.

Consistencies with existing practice

Staff and tāngata whai ora noted some consistencies between the Safewards model and the current practices on the ward. They acknowledged that the model is a way of putting their practice into words. The Safewards displays, such as Talk Down Tips, were viewed as helpful reminders for staff to follow best practices. The intervention of Clear Mutual Expectations was viewed as already being implemented as part of keeping people safe on the ward. However, some mentioned posters are not displayed and staff incorrectly assumed that ward rules were still displayed in each bedroom. Aspects of Know Each Other were described as already being practiced during irregular morning meetings where attending staff introduced themselves to tāngata whai ora. Staff names are also written on a whiteboard to help patients identify who is working with them. Staff knew that communal meetings were meant to be held in the mornings, but they had stopped doing them. There were some interventions that staff were implementing, but not consistently or completely. Reassurance was seen as something that staff did on an ongoing basis and the Safewards intervention aimed to encourage actual conversations and debriefing after incidents. The post-seclusion debriefs were consistent with the Reassurance intervention. Bad News Mitigation was consistent with the safety huddles that the ward was trying to implement to prevent problematic behaviour.

Suggested adaptations of Safewards interventions

Various adaptations to Safewards interventions were suggested by staff and tāngata whai ora. It was acknowledged that Safewards must remain open to change until the model is finalised. Clear Mutual Expectations were viewed as flexible and should be subject to change as needed. Talk Down Tips was suggested to include a step chart for those who struggle with this intervention. Tāngata whai ora expressed that the Talk Down Tips poster contained too many words and recommended simpler language. Delegation of a responsible staff was deemed necessary for Mutual Help Meetings to occur. A daily timetable was identified as helpful so tāngata whai ora could keep track of the day's events. Staff suggested a welcome package containing Clear Mutual Expectations, but it was recognised that due to their mental state tāngata whai ora may not absorb

information upon admission. Instead, these expectations should be continually discussed throughout admission and during morning meetings. To prevent displays, including Soft Words, from going unnoticed by staff, rearranging, emphasising and discussing them in handovers was suggested. Replacing booklets and displays, Know Each Other could be a more informal discussion during morning meetings where everyone participates. The language and purpose of Safewards should be shared with community staff and coordinators, including the prevention of seclusion on admission that managers are striving to eliminate.

Overall acceptance of Safewards as a potentially useful model

Overall, the Safewards model received positive feedback from the staff. The Safewards model was found to be liked, helpful and a good idea. Having a model of practice was felt to support continuity of care but whether it was going to be sustainable was questioned. The importance of embedding the model into ward culture was emphasised to prevent a return to old practices. The staff recommended communal groups with verbal engagement and acknowledged the need to manage different acuities within these groups. As the role involves working with a diverse range of temporary bureau staff and staff from diverse cultures, the Talk Down Tips included in this model was seen as a useful resource for them. Overall, tāngata whai ora appreciate being involved and informed and the Safewards model interventions support this.

Discussion

This article is the first analysis of how the Safewards model could be adapted and implemented to suit the specific needs of the New Zealand context. In this discussion, the crucial aspects of cultural adaptation and organisational change management are examined, both of which are instrumental in ensuring the successful integration of Safewards into New Zealand's mental health care system.

New Zealand cultural adaptations

New Zealand's health and disability system is committed to honouring the principles of Te Tiriti o Waitangi, a cornerstone document that underscores the nation's dedication to fostering long, healthy and independent lives for all its citizens (Ministry of Health, 2020). A pivotal aspect of this commitment is the acknowledgment that the health aspirations and equity of Māori are integral to fulfilling these obligations. Given the stark disparities in both physical and mental health outcomes between Māori and non-Māori populations (Russell, 2018), adapting the Safewards model to the unique New Zealand context becomes imperative.

In the era of globalisation, as countries become increasingly culturally diverse, healthcare systems bear a fundamental responsibility to adjust their practices to resonate with diverse populations and

cultures (Benet-Martínez & Hong, 2014; Rathod & Kingdon, 2014). Internationally, mental health outcomes for minority groups are poorer than for Caucasian people (Rathod et al., 2018). This has led to decades-long calls for mental health services to embrace greater cultural competence (Bhui & Sashidharan, 2003). A comprehensive literature review by Rathod et al. (2018) explored interventions for mental health disorders that have been culturally adapted. The findings revealed that, while some interventions lacked detailed information about the adaptation process, most adjustments encompassed alterations in language, contextualisation, conceptualisation, family dynamics, communication, content, adherence to cultural norms and practices, delivery methods, therapeutic alliances and treatment goals.

The literature provides an array of cultural adaptations for mental health services. For instance, in the United States, San Francisco General Hospital offers mental health wards tailored to specific ethnicities, such as East Asian Americans, African Americans and Hispanic Americans (Bhui & Sashidharan, 2003; Gordon, 2005). This approach allows service users to receive care from familiar faces, observe their traditional holidays, converse in their native language and have their cultural customs respected (Gordon, 2005). Recent research also highlights the efficacy of adapting digital mental health interventions to align with specific cultures in addressing mental health issues. For instance, Sit et al. (2020) successfully tailored a digital mental health intervention to resonate with young Chinese adults by adjusting the text and illustrations to align with their demographic. Similarly, Mathieson et al. (2012) found that adapting cognitive-behavioural therapy-based interventions for Māori tāngata whai ora was not challenging, with the inclusion of Māori designs, relevant scenarios and a focus on nurturing relationships and spirituality being pivotal. In a scoping review, Vincze et al. (2021) observed that visual adaptations were most employed in culturally adapted nutrition interventions for Indigenous people, followed by involving service users, such as incorporating participant stories. However, the study also noted that few adaptations involve service users at a deeper level, where they can oversee or deliver the intervention within their communities.

An essential adaptation proposed in this study involves integrating the Māori language and cultural concepts into the Safewards model. This aligns with Dawson's (2020) findings, emphasising that Safewards implementation in New Zealand necessitates cultural adaptation, including cultural safety and responsiveness. While English remains the most widely spoken language in New Zealand, te reo Māori gained official language status in 1987, followed by New Zealand Sign Language in 2006 (de Bres, 2015). The New Zealand government's Māori language strategy, Maihi

Karauna, aims to promote the use of te reo in over 200 ministries and agencies, including healthcare, under the supervision of the Māori Language Commission (Te Kāwanatanga o Aotearoa, 2019). The overarching objective of Maihi Karauna is to make the use of te reo a commonplace and accepted element of national identity (Te Kāwanatanga o Aotearoa, 2019).

This paper draws on numerous te reo terms and tikanga practices (Table 3), many of which, along with associated adaptations, may be taken for granted by both staff and tāngata whai ora. Recognising and prioritising the incorporation of te reo into their practice is crucial for both Māori and non-Māori staff. This practice serves various purposes: demonstrating respect; forging robust therapeutic relationships; conveying ideas when other languages fall short; engaging in culturally appropriate sensory modulation, including waiata, karakia, or kapa haka; fostering a strong sense of cultural identity; and diminishing the use of restrictive practices, including seclusion (Moore, 2021). To reduce seclusion rates among Māori, Moore (2021) recommends: (a) integrating Māori culture and practices into mental health care; (b) involving Māori staff in the care of Māori service users; and (c) enhancing staff knowledge of Māori practices and culture.

A noteworthy finding from this study is that both staff and tāngata whai ora place a higher value on verbal communication than on booklets, handouts and displays. Some staff prefer to establish personal connections with tāngata whai ora and share their own experiences rather than relying solely on a physical 'Know Each Other' booklet. Tāngata whai ora expressed that staff documentation hindered engagement, while they were eager for staff to connect through activities such as sports, harakeke and mau rākau. Harakeke has been incorporated into sensory modulation practice in mental healthcare, providing a safe space for talk therapy (Kirkwood, 2015). Mau rākau has been employed in forensic settings to empower and deter re-offending through indigenous practices (Tyson, 2018). Whakamoemiti, an existing yet inconsistently practiced approach, was highlighted by both staff and tāngata whai ora in this study. Whakamoemiti can facilitate a connection between staff and tāngata whai ora while also integrating Māori culture, incorporating karakia, pepepha, whakawhanaungatanga and waiata as the day begins. In addition to connections formed in the unit, the inclusion of whānau was raised by staff participants in this study and reflects the recommendations of Patterson et al.'s (2018) inquiry into mental health and addictions: (a) support whānau to be active participants in the care of their family members; and (b) support the wellbeing of whānau.

Organisational change management

In the field of mental health nursing, the resistance of nurses towards change represents a substantial obstacle to the successful implementation of new practices (DuBose & Mayo, 2020). Even the slightest adjustments to established mental health nursing practices can pose considerable challenges and sustaining or replicating successful improvements can prove to be an arduous task (Breckenridge et al., 2019; Higgins et al., 2018). This reluctance is observable across various aspects of mental health care, encompassing initiatives such as Safewards and even routine procedures like intramuscular injections. Despite the identification of best practices, nurses often hesitate to prioritise the ventrogluteal site for injections due to unfounded concerns about the anatomical location and needle stick injuries (Arslan & Özden, 2018; Wynaden et al., 2006). Similarly, despite the World Health Organization (2019) identifying the elimination of seclusion and restraint practices as a priority in mental health care, staff hesitancy remains a significant impediment to achieving this objective (Gerace & Muir-Cochrane, 2019). Factors such as fear, lack of alternative safety methods, staff experience, staff-service user relationships and physical environments all contribute to staff reluctance to eliminate seclusion practices (Muir-Cochrane et al., 2018; Muir-Cochrane et al., 2015). Leaders must anticipate that some resistance will exist, even in environments that prioritise transformational leadership (DuBose & Mayo, 2020).

Noteworthy instances of resistance encountered in this study included concerns related to displays and handouts, such as issues concerning display space, destructibility and verbosity. Some staff members questioned the utility of creating Know Each Other booklets, believing they would go unread. Additionally, a few staff members were uncomfortable with the idea of including their profiles in the booklet and declined to provide their photos. Some staff members also expressed reservations about verbal disclosures during meetings, citing concerns about tāngata whai ora oversharing and low attendance rates. Others were opposed to communal visual displays, like Soft Words and Talk Down Tips posters, out of concerns that they could lead to arguments or be easily damaged. Staff availability also played a role, as some team members were reluctant to take on additional responsibilities and preferred to delegate them to their colleagues.

Implementing and sustaining change requires a style of leadership that inspires and motivates individuals through ideas and values, known as transformational leadership (Burns, 2010). When leaders lead by example, it reduces resistance to change among staff (Wang et al., 2001). To smoothly implement organisational change, it is essential to plan meticulously, establish timelines, and address potential factors that may impede change (Al-Haddad & Kotnour, 2015). While the

Safewards model is described as "*Fairly straightforward"* by a staff participant, change management remains vital to overcome staff hesitancy and facilitate necessary adaptations. Even minor adjustments to nursing practice in mental health units can pose considerable challenges (Higgins et al., 2018). The Safewards interventions are designed to align with existing best practices and do not introduce entirely new concepts or skills to staff. For instance, the Know Each Other intervention aligns with the practice of building therapeutic relationships, which is foundational in mental health nursing (Chambers, 2017). However, staff members may feel uncertain about appropriate self-disclosure and establishing boundaries (Warrender, 2020). Know Each Other can serve as a valuable tool to educate and model appropriate boundaries. To mitigate staff resistance, Safewards should be presented as a supportive framework for enhancing existing best practices rather than as a disruptive change, which may enhance its acceptance. To overcome the barriers to Safewards implementation, Knauf et al. (2023) recommend a robust design for Safewards interventions and implementation methods. This should be accompanied by staff participation and a positive perception of the Safewards model, as well as a healthcare system that prioritises Safewards implementation (Knauf et al., 2023). Additionally, service users should be made aware of Safewards interventions and encouraged to participate in them (Knauf et al., 2023)

Change can be supported through motivational theory, with role models influencing motivation and goals (Morgenroth et al., 2015). Nurses are more motivated to make meaningful improvements when they feel a sense of purpose and alignment of their values with their work (Moody & Pesut, 2006). Sharing research evidence, soliciting service user feedback and presenting data can also be effective in motivating staff teams (Moody & Pesut, 2006). Regularly evaluating data on coercion can help sustain Safewards interventions (Baumgardt et al., 2019). By fostering trust, exemplary leadership and a shared goal of creating a safer ward community, motivation can grow among staff, leading to a positive cultural shift (Moody & Pesut, 2006). While there were both positive and sceptical views of Safewards expressed by staff, this dual perspective can be approached akin to rolling with resistance and harnessing positive approaches to change, as observed in substance use treatment (University of Missouri, n.d.; Westra & Norouzian, 2018).

The National Collaborative for Restorative Initiatives in Health (2023) envisions organisational change towards a restorative health system in New Zealand, emphasising the Te Ao Māori perspective of hohou te rongo, or peace-making. Restorative principles are founded on the value of preserving human dignity (Health Quality & Safety Commission New Zealand, 2023). Restorative practices aim to promote wellbeing, rebuild relationships and re-establish trust through

respectful communication, collaboration and consensus following harm (Health Quality & Safety Commission New Zealand, 2023). A restorative approach focuses on four essential questions: (a) what happened; (b) how were people affected; (c) what needs and obligations exist; and (d) how can any harm be repaired (Health Quality & Safety Commission New Zealand, 2023). Applying restorative practices can enhance the learning process from experiences of harm, resulting in better care for service users, their families and staff (Health Quality & Safety Commission New Zealand, 2023). In reflection of this paper, restorative foundations align with Te Ao Māori, Te Tiriti o Waitangi obligations, trauma-informed care, the welcoming of people, the practice of apologising, debriefing and harm prevention (Te Ngāpara Centre for Restorative Practice, 2022).

Limitations

The existing Safewards literature predominantly centres on adult inpatient services, offering limited guidance for adaptations tailored to different settings and diverse cultural contexts. Consequently, publications discussing these adaptations are rare and tend to be concentrated within specific niches like forensic and acute adolescent services. Although this study aims to capture the perspectives of tāngata whai ora, their contribution was constrained, as they steered away from the predefined focus group questions, opting instead to delve into their preferred qualities in healthcare staff. There is a notable opportunity for future international research endeavours to: collaboratively develop a Safewards model through co-design processes; assess the acceptability of Safewards language within various cultural settings; and investigate the practical implementation of the Safewards model across different healthcare contexts.

Moreover, within the New Zealand context, there exists significant potential for Māori researchers to co-design and implement a kaupapa Māori Safewards model. An illustrative example of such an approach is embodied by Poutama Ora, a primary resource for Māori individuals navigating mild to moderate mental distress or addiction challenges (Henare, 2021). This service adopts a culturally safe and inclusive framework, providing a culturally rich array of activities that incorporate mythological traditions and the use of waka (traditional Māori canoes) to explore and understand individuals' experiences (Henare, 2021). Such research and initiatives hold the promise of enriching the Safewards model by infusing it with cultural sensitivity and relevance, advancing mental health care practices within diverse and culturally distinct communities.

Conclusion

The Safewards Model, originating in the United Kingdom through Bowers' (2014) work, was devised to address issues of conflict and containment within inpatient mental health wards.

However, adopting this model within the New Zealand context necessitates adaptation to advance health equity for Māori and honour the commitments in Te Tiriti o Waitangi. The existing Safewards literature remains limited, with an absence of studies detailing specific adaptations grounded in different settings or for diverse populations. This notable gap underscores the need for further exploration and innovation in this crucial area.

This paper contributes to bridging this gap by shedding light on the perspectives of inpatient staff and tāngata whai ora, offering a glimpse into their perceptions of the Safewards model and the adaptations required to make it more attuned to the unique New Zealand context. Through content analysis and thematic exploration, this study has started to outline key themes and considerations that could inform the design of a New Zealand Safewards model.

These themes encompass the conceptualisation of a New Zealand Safewards model, entailing the identification of key values, the fostering of a safe environment and the necessary adaptations to Safewards communication. Moreover, they delve into the practicalities of implementing such a model, emphasising the creation of an environment conducive to change and effective organisational change management.

Incorporating Te Ao Māori, weaving consistencies with prevailing practices, suggesting nuanced adaptations of Safewards interventions, and, notably, demonstrating an overall willingness to embrace Safewards as a potentially valuable model, are key findings that underscore the potential for enriching mental health care practices in New Zealand. Crucially, addressing staff hesitancy to change is pivotal for successful adaptation and implementation within the New Zealand context. This can be achieved through the careful application of organisational change management principles, including transformational leadership and motivational theory.

As we look to the future, further research and collaborative efforts must continue to refine and adapt the Safewards Model to better serve the diverse needs and aspirations of New Zealand's mental health community, thus ensuring that the principles of equity and cultural sensitivity embodied in Te Tiriti o Waitangi are upheld in every aspect of mental health care delivery.

Relevance for practice

Maintaining the relevance and efficacy of the Safewards model hinges upon a requirement to broaden its existing body of literature. Adapting Safewards interventions to suit the rich tapestry

of diverse cultures, countries and settings assumes critical significance, as it underpins the model's accessibility and applicability across a spectrum of mental health environments worldwide. Confronting the inevitable resistance to change frequently encountered in real-world practice necessitates a concerted effort in applying organisational change models. Finally, we must underscore the importance of not merely considering but actively incorporating the perspectives of service users throughout the entire lifecycle of the development and implementation of mental health interventions. In doing so, we acknowledge not only the inherent value but also the compelling necessity of integrating their unique insights and lived experiences into the very fabric of mental health care design.

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Tables

Table 1: *Safewards interventions*

Safewards intervention	Definition
Clear Mutual Expectations	Collaboratively designed standards of behaviour for patients and staff that are publicly displayed.
Soft Words	Displayed statements on how to handle flashpoints; changed after several days.
Talk Down	A de-escalation model is used to prevent flashpoints and to improve staff skills.
Positive Words	At every nursing handover, something positive is said about each patient.
Bad News Mitigation	Assessment and identification of situations where bad news may be delivered and intervening to prevent a flashpoint.
Know Each Other	Shared staff information, according to a template, which is displayed publicly e.g., favourite movie and sport.
Mutual Help Meeting	A meeting for patients to build rapport with one another and identify how they may help each other.
Calm Down Methods	Sensory modulation tools for patients to utilise in times of distress.
Reassurance	Following up with patients after incidents on the ward to debrief and support them.
Discharge Messages	Public display of positive messages left by other patients on the day of their discharge.

Adapted from www.safewards.net

Table 2: *Focus group demographic*

Variable	Frequency	Percentage
Focus groups (n)		
Tāngata whai ora	1	25%
Staff	3	75%
Participants (n)		
Tāngata whai ora	3	16%
Staff	15	83%
Current role (staff)		
Registered nurse	4	26%
Enrolled nurse	2	13%
Mental health assistant	1	6%
Kaitakawaenga	2	13%
Management	5	33%
Activities facilitator	1	6%
Gender		
Male	8	44%
Female	10	55%
Age		
20-30	4	22%
31-40	4	22%
41-50	5	27%
51-60	5	27%
Years of experience (staff)		
0-5	7	46%
6-10	5	33%
11+	3	20%
Ethnicity		
New Zealand European	8	44%
Māori	8	44%
Cook Island Māori	1	5%
Chinese	1	5%

Table 3: *Te Ao Māori concepts raised in focus groups*

Te Ao Māori concept	Definition (Te Aka, 2023)	Focus group examples
Whānau	Extended family.	Involve family, especially on admission. Come together. Participate.
Pono	Be true, honest, genuine.	Stay true to your beliefs. Explain why you can't meet requests.
Aroha	Love, care, compassion.	Help each other. Listen. Be patient. Be kind. Reassure.
Kai	Food, meal, to eat.	Connecting through food. Nourishing the body.
Puoro	Sing, music, instruments.	Using waiata to express yourself. Access to music to shift mood.
Taiao	Environment, nature, world.	Connect with nature. Flax weaving. Mau rākau (traditional martial art).
Whare	House, building, dwelling.	A place to rest. Keep the environment clean. Contribute to your environment. Routine.
Kaupapa	Policy, plan, purpose.	A common understanding. Communicate ward purpose. Structure.
Whakaute	Respect, tend to, care for.	Talking to, and about, tāngata whai ora and staff with respect.
Mana	Prestige, influence, power.	Negotiate. Return some control. Connects with utu.
Kanohi ki te kanohi	Face-to-face, in person.	Building relationships one-on-one. Building relationships verbally.
Manaakitanga	Hospitality, kindness, generosity.	Make sure everyone feels welcome. Introduce yourself. Provide a welcome pack.
Utu	Balance and harmony in relationships.	Forgive and forget. Everyone is equal. See eye to eye. Connects with mana.
Whakawhanaungatanga	Establish relationships, relate well to others.	Share things about yourself. Everyone attends meetings. Let your guard down.
Awhi	Surround, embrace, cherish.	Help tāngata whai ora help each other. Support staff and tāngata whai ora.

Table 4: *Overview of themes*

A New Zealand Safewards model	
Theme 1:	**Creating a New Zealand Safewards model**
Categories:	Identify key values.
	Support a safe Environment.
	Adapt Safewards communication.
Theme 2:	**Implementing a New Zealand Safewards model**
Categories:	Create a change environment.
	Manage organisational change.
Theme 3:	**Overall aspects of a New Zealand Safewards model**
Categories:	Incorporation of aspects of Te Ao Māori to support implementation.
	Hesitancy to embrace Safewards interventions.
	Consistencies with existing practice.
	Suggested adaptations of Safewards interventions.
	Overall acceptance of Safewards as a potentially useful model.

Table 5: *Focus group questions*

Focus group questions
What does a New Zealand Safewards model require?
What changes need to be made to the language?
What are the challenges of implementing each of these interventions?
How effective do you think the implementation of a New Zealand Safewards model will be?
Is there anything else you would like to say or add?

5.2.3 Study three: Applying the Safewards Model in New Zealand. Insights from tangata whai ora and staff.

Overview

This research thesis aims to evaluate the application of a New Zealand Safewards model. To achieve this, it is necessary to collect and analyse the perceptions of tangata whai ora and staff. Such analysis is essential to evaluate the suitability of the model for the New Zealand context. The impact of this study are the practical strategies to support success in future Safewards implementation. It shows that adaptation to different contexts, including culturally, is achievable. It further bridges a gap in literature as current publications mostly neglect service user voices. This paper is currently under review with consideration for feedback provided by a journal.

Title: Applying the Safewards Model in New Zealand. Insights from tangata whai ora and staff.

Authors: Sarah Knauf, Associate Professor Anthony O'Brien and Emeritus Professor Allison Kirkman. Author contribution: Sarah Knauf 70%; Anthony O'Brien 20%; and Allison Kirkman 10%. Appendix H: Co-authorship form article three.

Abstract

Reducing conflict and containment rates within inpatient mental health units is crucial for the safety and well-being of service users and staff. The Safewards model proposes 10 interventions to address this challenge. This study aimed to explore the perceptions of staff and service users regarding the implementation of an adapted Safewards model in New Zealand. The feedback from four focus groups with a total of 17 participants provides practical strategies for future Safewards implementation. The data from these focus groups were analysed and two themes emerged: barriers and enablers to implementation. This paper recommends promoting Safewards implementation by: considering ward dynamics, such as length of stay and acuity; cultural adaptation tailored to the population and including cultural leaders; employing effective change management, particularly through co-design and role modelling; and designing a staged implementation that assesses the optimal order for interventions and sits alongside the Six Core Strategies used in an existing seclusion reduction initiative. To enhance the existing literature, future studies should contribute to understanding Safewards implementation from the perspectives of both service users and staff.

MeSH Keywords: Inpatient; nursing care; psychiatric nursing; risk management; safety.

Introduction

Mental health units can experience episodes of conflict, including violence, suicide, self-harm and absconding, as well as containment measures such as PRN (as-needed) medication, special observations, restraint and seclusion (Bowers, 2014). In response to these challenges, the Safewards model (Table 1) was developed in the United Kingdom by Bowers (2014), with the aim of reducing incidents of conflict and containment in inpatient mental health services. The evidence underpinning the Safewards model comes from a significant literature review that occurred between 2005-2012 on conflict and containment, including all empirical English language research from 1960 onwards, totalling 1181 papers (Bowers et al., 2014). Literature shows that the majority of adult services studied experienced improvements, such as reduced conflict and containment rates, improved staff attitudes or the creation of a more therapeutic ward environment (Baumgardt et al., 2020; Baumgardt et al., 2019; Bowers et al., 2015; Dawson, 2020; Dickens et al., 2020; Fletcher, Buchanan-Hagen, et al., 2019; Fletcher, Hamilton, et al., 2019; Fletcher et al., 2017; Higgins et al., 2018; Lee et al., 2021; Lickiewicz et al., 2021; Stensgaard et al., 2018).

Background

Several Safewards studies outlined lessons for future practice (Baumgardt et al., 2019; Cox et al., 2016; Fletcher et al., 2021; Higgins et al., 2018; Lickiewicz et al., 2021; Price et al., 2016). In addition to these studies, online resources guide implementation, particularly: Safewards (n.d.-c), Safewards (n.d.-b); Victoria State Government (2023); and an online community (Safewards, n.d.-a). Findings from Knauf et al.'s (2023) systematic literature search show discrepancies between implementation methods, of significance: implementation time frames; staff education methods; staged or packaged implementation; and order of implementation.

Pertinent to this study are Dawson's (2020) recommendations for implementing the Safewards model in New Zealand: (a) Embed Safewards within the existing Six Core Strategies; (b) Collaborate with ward staff to adapt the model to the New Zealand context; (c) Alter the language; (d) Māori[5] led programme of work to adapt the Safewards model; (e) Feedback from tangata whai ora[6] and whānau [7] at all levels of implementation; and (f) Engage staff, provide appropriate training. Māori are 16.5% of the New Zealand population (Environmental Health Intelligence New Zealand, 2020). Health outcomes for Māori are disproportionately worse than the overall population and Māori experience higher rates of coercive practices including compulsory treatment, restraint and seclusion (Patterson et al., 2018). To meet the obligations of the Crown under Te Tiriti o Waitangi[8] this inequity needs addressing (Patterson et al., 2018). Australian Safewards research has produced several publications but neglect to consider Aboriginal health inequity. Compared to the overall Australian population, Aboriginal and Torres Strait Islander people experience higher rates of mental illness, almost twice as high suicide rates and three times as high rates of hospitalisation (Australian Institute of Health and Welfare, 2023). This paper builds on previous reports on barriers and enablers to Safewards implementation (Knauf et al., 2023) and adaptations of the Safewards model (Knauf et al., 2024) in the unique New Zealand context.

This paper aimed to explore the perceptions of staff and tangata whai ora on implementing an adapted Safewards model in the New Zealand context to provide practical strategies for future Safewards implementation.

[5] Indigenous person of New Zealand.
[6] Person seeking wellness. Used in New Zealand context; service user used in international context.
[7] Family or extended family group.
[8] Treaty of Waitangi.

Methods

The study setting was Te Whatu Ora Waikato. Of the Te Whatu Ora Waikato population, 23% is Māori, higher than the national average of 16% (Waikato District Health Board, n.d.). In October 2023, the mean length of stay (LOS) in the study setting was 6.7 days (Te Whatu Ora Waikato, 2023b). The average age was 37 years old (Te Whatu Ora Waikato, 2023a). In December 2023, six adult tangata whai ora spent 228 hours in seclusion (Te Whatu Ora Waikato, 2023b). The average length of a seclusion episode for an adult tangata whai ora of Māori descent was 34.51 hours and 11.19 hours for non-Māori (Te Whatu Ora Waikato, 2023b). Māori are over-represented in both adult and forensic mental health service seclusion use and are more likely to spend longer in seclusion (Te Whatu Ora Waikato, 2023b). Health Quality & Safety Commission New Zealand (2022) has had a Zero Seclusion project in place since 2019. Te Pou (2020) is a national workforce development organisation that supports facilities to meet this goal and recommends implementation of the Six Core Strategies. The Six Core Strategies are evidence-informed approaches effective in reducing seclusion and restraint events (Te Pou, 2020b): (a) Leadership towards organisational change; (b) Full inclusion of lived experience; (c) Using data to inform practice; (d) Workforce development; (e) Use of seclusion and restraint reduction tools; and (f) Debriefing techniques.

Staff education sessions were held pre-implementation on the Safewards model and interventions, with orientation booklets distributed to all staff. Safewards was introduced using a staged implementation, with two interventions introduced each month. Interventions were introduced, again, by the researcher at monthly staff meetings and further reinforced in monthly Safewards newsletters. Cultural adaptations are descried in Knauf et al. (2024). Implementation was supported by the researcher, a registered nurse employed in the study setting, through participatory action research methods (Cornish et al., 2023). Fidelity to the interventions were measured through the Safewards (n.d.-f) fidelity checklist. Repeating methods and focus group schedule of a previous phase of this study, (Knauf et al., 2024), this qualitative research employed four focus group discussions involving a group of inpatient mental health professionals and tangata whai ora (Table 3). To support a culturally safe environment, the tangata whai ora focus group was facilitated by a kaitakawaenga[9]. Two focus groups were conducted with clinical staff and one with managers. The

[9] Provide cultural support, part of multidisciplinary teams, identify and address ways to improve service delivery to Māori.

researchers prepared a structured interview guide and sessions lasted between 40 to 60 minutes. Audio recordings were transcribed for subsequent analysis.

Data analysis involved a thematic approach using a data-driven inductive method to identify codes, categories and themes from the raw focus group data (Clarke & Braun, 2017). Following Braun and Clarke's (2006) six-phase thematic analysis framework, the lead researcher generated initial codes in NVivo, identified themes, reviewed and refined them and finally, defined and named the themes before reporting the findings. The coding and categorisation process was collaborative with all the authors and continued until a consensus was reached.

Results

Results of the thematic analysis were organised under two themes: (a) barriers, with the subthemes level of application, ward dynamics and communal material management; and (b) enablers, with the subthemes endorsement of interventions, design and implementation and cultural adaptation (Table 4).

Barriers

Level of application

Staff transcripts revealed a superficial understanding and potential misuse of Safewards interventions. Some staff sought clarification, while others grappled with comprehension of tangata whai ora needs. Positive Words (PW) prompts were viewed positively but with a disconnect in staff understanding. Know Each Other (KEO) (Appendix V: Know Each Other form) booklet misuse led to concealment due to concerns about predatory behaviour.

> *It [KEO booklet] was just found in like, people's rooms with substances on it…and in their bag to like, to take home…I think for us, with the acuity on the ward there was just some people that took advantage of it and kind of took it a direction that we didn't see coming.* Management.

Staff preferred verbal interventions over KEO booklets; "I know that when you sit and talk with them a lot of those things you talk about". Often, the KEO booklet was not available in communal areas and it is unlikely that these engagements followed on from use of the KEO booklet. Views on Reassurance (Re) frequency varied, highlighting implementation challenges. Forgiveness was emphasised by one tangata whai ora as being a part of Re, "If staff and I have a disagreement, they forgive me for what I did to them".

Safewards interventions were said by staff to have "Started off well" but some staff members

reported a risk of Safewards interventions going "By the wayside" and being neglected. "Obviously it's part of change and change is always hard for some people". They noted change was particularly difficult when only a few individuals were actively driving the process. The underutilisation of champions highlighted persistent difficulties in change implementation.

Some people take to it, some people don't even know what it is. But it's usually the ones that have been here for a long time and they're just over it anyways, over their job. The newer ones, they're more observant and utilise the [Safewards] info. Manager

Ward dynamics

The frequency of Mutual Help Meetings (MHM) varied, influenced by ward acuity, described by a staff member as "…such a different place on two different days", with challenges in staff engagement. By contrast, another staff participant said that MHM was a nice experience for attendees.

Because it's nice, because you gather the patients. And they have a little bit fun, you know, like asking questions. What's the news? What's your favourite thing? You know, it brightens the mood in the ward somehow. Staff

Ward dynamics impacted the effectiveness of interventions, especially in the Low Stimulus Area[10] (LSA), "It's just a totally different environment". With Re, "The patient may be in seclusion and may not be in a position to totally understand at that stage". Challenges in implementing Calm Down Methods (CDM) were noted due to ward dynamics. In the low stimulus area the use of CDM was severely limited mostly due to staff concern of safety or damage, with the main intervention being the use of music. Ward dynamics affected the frequency and effectiveness of Discharge Messages (DM), with time constraints during busy mornings being a contributing factor. Despite challenges, DM was seen as beneficial in less acute environments. Staff identified potential adaptations for the LSA, suggesting verbal interactions instead of communal displays or handouts and acknowledging the need for flexibility based on acuity. Although "Really valuable", the frequent absence of kaitakawaenga posed challenges for Powhiri Process (PP) implementation; "I think we adapted this to maybe how we, how we operate and the resources that we have at the time". Two managers reflected that the ward is lucky to have staff from Māori and Pacifica backgrounds to support the PP the in absence of kaitakawaenga.

Communal material management

Talk Down (TD) poster content was considered excessive. A tangata whai ora suggested that the TD poster should convey a simple message, such as "Be quiet," or "Time and space" to prevent

[10] A quiet, calm and private space to provide to de-escalate or care for tangata whai ora.

escalation. Limiting CME to five points was effective and "For most patients, this was the one that they most, kind of ask about". Staff recommended placing the Safewards logo prominently on the maramataka[11] poster for clearer association to the Safewards intervention. Concerns were raised about the hygiene and durability of sensory modulation equipment, with a need for post-use sanitisation, re-stocking and more robust alternatives. Concerns about potential misuse of sensory items and missing materials were noted. Staff acknowledged that sensory modulation materials often went missing, but most viewed this positively, interpreting it as a sign that the interventions were being used and found helpful.

Enablers

Endorsement of interventions

Role modelling and leadership were found to be crucial in supporting Safewards interventions. ACNMs (Associate Charge Nurse Manager) played a pivotal role in timely implementation and staff unity, especially in interventions like Re and BNM. Staff emphasised the need for leadership at higher levels, citing opportunities like handovers to instil Safewards principles. Managers stressed the importance of leadership at both unit and upper management levels. One manager took personal responsibility for MHM, stating, "I did it because I knew it won't be done if I didn't do it". PW also heavily relied on leadership and role modelling for success. Tangata whai ora actively contributed to interventions like DM and KEO, showcasing their input into the Safewards model.

Tangata whai ora gave positive endorsements for Safewards interventions during focus groups. CME was praised by tangata whai ora as "Excellent," and staff saw tangata whai ora "Saying the words on their fingers, like "Pono[12]"". A tangata whai ora described, "For some people, this is their home and for some people, this is their home away from home". A staff member compared CME to marae[13] protocols "Basically, the same thing as the whakawhanaungatanga[14] too, the give and take. Like being on a marae. Tangata whai ora also drove other interventions, such as MHM and CDM. Managers reflected that, uniquely, Safewards "Was something that they [tangata whai ora] had input into".

It [MHM] was great. Love it. Everyone loved it because it made, I think they think that they have a voice. Or they could give suggestions. It was great was a good way to interact. It was a nice way for the doctors to walk on and see them engaging in a sort of safe space yeah, I like Mutual Help Meetings. Management

[11] Māori lunar calendar.
[12] Truth.
[13] Open area in front of a Māori meeting house.
[14] Process of establishing relationships.

Tangata whai ora engaged with sensory items, contributed to DM and filled in KEO forms. Tangata whai ora involvement extended to CDM, where they enjoyed art supplies. TD is supported by tangata whai ora, who sometimes helped; "When something's happening usually, they'll see it and they'll help you out and things like that and leave them alone". Tangata whai ora expressed enthusiasm for the PP, finding it relaxing despite their dislike of hospital.

Safewards was seen to empower staff, providing a sense of confidence and a unified approach to challenges. The implementation of PW at handovers was acknowledged as a successful cultural shift, promoting positive communication and reframing discussions about tangata whai ora; "It's just looking at things maybe from a different angle, like maybe a higher level of understanding". This increased people's "Understanding for maybe what they've gone through or why they are the way they are". Safewards interventions were seen as transformative, contributing to a positive "Cultural change" within the ward. "It's given people skills on how to do things differently". Staff members endorsed Safewards based on its observed effectiveness, stating it is a valuable tool that has the potential to reduce seclusion if principles are adhered to; "Great principles that everyone should abide by".

It [Safewards] makes you feel empowered too, like if you're able to have those safety huddles. Yeah, you know, you can call them, you feel like, actually no, I can do this if I'm worried. Feel more confident because you know that all your team are on the same page. Yeah, on what's happening. Staff

Design & Implementation

Implementing the Safewards model was identified as "The big challenge" by a staff member but gained support when aligned with existing practices. Staff noted the consistency of Safewards with expected practice. A staff member explained that "They [interventions] may be new, but it's now like common practice".

Just like what happened the other time, you know, when I got hit, when I got assaulted. There was a straightaway debrief, you know and most of the time that there's a critical situation. The bosses are, especially the ACNMs[15], are gathering us, you know, for a debrief and what went wrong, what should we do to manage the situation and how can we avoid it? So, in that case, you know, we're learning about dealing with other situations in the future. Staff

Re linked in with the seclusion debrief practice that was already occurring in practice, likely making this intervention more accepted. The merging of BNM into safety huddles, which were

[15] Associate charge nurse manager

inconsistently occurring but something that the ward wanted to prioritise, resulted in BNM becoming a natural part of daily practice for the ward, something "We do all the time. It's just become our practice". One staff member thought the CME "Just encompasses all the traits that we must have to work good, or effectively, with tangata whai ora and each other". Regarding SW, a staff member said, "I think the thing that's mostly talked about is just be honest and genuine". One tangata whai ora said that CME is "How it should be in here. It shouldn't be full of violence". CME was seen to be consistent with what staff often talked about with one another.

Concerns about negative effects prompted suggested solutions. In MHM, a set routine was recommended to address timing and hosting issues. Suggestions to control materials in the low stimulus area were aimed at mitigating acuity barriers. Renaming "Discharge messages" to "Messages of Hope" was proposed to better align with the intervention's purpose. Another suggestion was simplifying KEO and advocating for verbal interactions to address concerns about communal materials. When asked, tangata whai ora agreed that KEO could be achieved verbally, without the need for booklets or wall displays. Challenges in implementing interventions are acknowledged, highlighting the need for consistency and thorough education.

Education sessions at the start of the implementation period did not occur as designed because "Of the nature of the beast" that is an acute mental health unit. Because of several barriers, "It was probably a little scratch the surface thing…you intended to have full days [education] and it didn't happen". Multimedia tools played a crucial role in Safewards orientation. Staff members described that they utilised pamphlets, design focus groups and summary posters to grasp the principles.

I found these [summary posters] really helpful for like new staff. You'd say "Hey, this is something we do on our ward, have a look at it". "These are some ways we can…" Management

In terms of achieving tangata whai ora engagement, there was recognition of the importance of explaining the Safewards model to enhance understanding and contribute to a safer environment, "The more we explain it to them [tangata whai ora], the more that they'll understand what is actually going to happen on this ward. Keeping it safe". Despite the intended role of champions in supporting education and implementation, the absence of observed champions was noted, a manager summarised that there are "No champions, we're the champions". Champions were recruited at the beginning of Safewards implementation, but their engagement and visibility waned during the study period.

Cultural adaptation

Cultural adaptations enriched Safewards. The integral role of kaitakawaenga was recognised, especially in welcoming and de-escalating tangata whai ora during admission; "All the afternoon staff said it made new people on the ward feel so much better without the, the agitation". Cultural practices such as whakawhanaungatanga, the use of kai[16], waiata[17], poi[18] and maramataka enhanced Safewards interventions. Staff and tangata whai ora appreciated these adaptations, fostering increased cultural awareness and contributing to a holistic and uniquely effective approach.

Sometimes it [PP] worked really well, we had people's family come in with them during the admission process, they would be there until they may be settled, like you know were kind of settled down, or when the doctor was reviewing them, they spent time in the admission area with the kaitakawaenga and their family and it just kind of helped maybe accept a little bit more coming into hospital. Manager

Going and introducing yourself, asking if they [admission] want anything to eat or drink, giving them a little bit more time maybe, than "Hey, come with me" off to the ward right away. I don't think that really ever helps. Manager

In the study setting, the merging of MHM and pre-existing, albeit inconsistent, whakamoemiti[19] naturally occurred. This integration meant that waiata became an integral part of MHM, with one tangata whai ora showing its importance by stating, "Really important. Speak our opinion, sing some waiata". Poi was utilised as a physical PW prompt during handovers, encouraging staff to incorporate positive remarks about each tangata whai ora then pass the poi onto the next staff member. The incorporation of maramataka, such as "Mahuru[20]", sat adjacent SW posters. This adaptation provided a unique avenue for one staff member to "Use it as a different way of learning a bit more about Māori culture".

[16] Food, meal, to eat.
[17] To sing, song.
[18] Light ball on a string twirled rhythmically to waiata.
[19] Wards' morning meeting.
[20] Fourth month in the Māori lunar calendar.

Discussion

This is the first paper to explore the perceptions of staff and tangata whai ora on implementing an adapted Safewards model in the New Zealand context. The barriers and enablers of Safewards model implementation resulted from a thematic analysis of focus group data. In this discussion the significance of ward dynamics, cultural adaptation, change management, implementation design and limitations are explored.

Ward dynamics

Since its publication, the Safewards model has been implemented in settings that can experience longer lengths of stay, including forensic mental health units (Cabral & Carthy, 2017; Kipping et al., 2019; Maguire et al., 2018; Palviainen et al., 2020; Price et al., 2016). Notably, Safewards Secure was developed for forensic mental health services (Maguire et al., 2022). Although the literature is clear that the original Safewards is modelled on acute adult inpatient mental health wards, it is unclear if the model is based on a typical length of stay. This study found that short length of stay was seen as a barrier to implementation by staff. This was particularly evident in the LSA, where feedback suggested that interventions such as SW, KEO and DM were not conducive to this acute and high turnover environment.

These findings reflect the results of Evlat et al.'s (2021) systematic review of the implementation of psychological therapies in acute mental health inpatient settings. According to Evlat et al. (2021), mental health units for inpatient care are characterised by short stays, comprehensive treatment planning and a high level of risk. Inpatient psychological therapies are often unavailable so medication-based treatment is the most common intervention due to ward dynamics, including staff training, busy schedules and acute presentations (Evlat et al., 2021; Wood & Alsawy, 2016). In addition to training multi-disciplinary professionals, receiving leadership support and prioritising the therapeutic relationship, Evlat et al. (2021) indicated the importance of adapting psychological interventions to the nature of acute inpatient mental health settings. Similar to psychological interventions, all Safewards interventions are interpersonal, making Evlat et al.'s (2021) study especially pertinent.

Within focus groups, staff suggested adaptations for how Safewards interventions could be adapted for short-stay settings. For example, the "Discharge Messages" intervention was renamed "Messages of Hope" to better suit an environment with high turnover. This way, tangata whai ora, their whanau or staff members could leave a positive message at any point during the admission. Staff feedback also showed a preference for verbal engagement, as part of KEO and

whakawhanaungatanga at the start of MHM. This adaptation could help overcome the barriers of displaying and maintaining KEO posters and booklets in an environment where staff time is limited, tangata whai ora engagement is variable and there is a risk of damage to displays.

Cultural adaptation

Tailoring adaptations to the population can help support the implementation of interventions but may add complexity and should still retain the essence of the original Safewards model. The Safewards model was adapted to the New Zealand context in culturally appropriate ways (Knauf, 2024). These included incorporating concepts such as: manaaki[21], 11th intervention PP; kaitakawaenga; whakamoemiti merging with MHM; whakawhanaungatanga as part of KEO; waiata as part of MHM; poi as a physical prompt in PW; maramataka alongside SW; and involving whānau. These adaptations allowed the model to remain true to the original Safewards interventions, as well as to align with existing practices. The results of this study showed the importance of establishing buy-in from cultural leaders in advance of Safewards implementation.
In an evaluation of a culturally adapted model, Day et al. (2021) conducted a study to evaluate the effectiveness of a Mental Health First Aid Program for Aboriginal and Torres Strait Islander communities. This study found it was crucial to have instructors with lived experience of mental health concerns within these communities to provide relevant and effective training (Day et al., 2021). Participants also emphasised that the course was not a mere translation of language from existing materials but a crafted adaptation of the content to reflect the cultural and mental health issues in these communities (Day et al., 2021). The findings of Day et al's (2021) study support the idea that training materials could be adapted to fit the needs of a diverse range of settings. Day et al.'s (2021) findings are congruent with the feedback from this paper, where staff in multiple focus groups highlighted the significant role kaitakawaenga hold within the study setting, supporting tangata whai ora, whānau and staff. While the adapted Safewards model was never intended as a kaupapa Māori[22] framework, Māori language translations have been incorporated in the Safewards materials. At a deeper level beyond translation, Safewards implementation was supported with tikanga[23] Māori. Māori concepts from the New Zealand Safewards model (Table 2) are summarised in Knauf et al. (2024).

Change management

The Safewards interventions have been intentionally designed to be simple to implement and align with established best practices (Knauf et al., 2024). Interventions are adaptations of generally

[21] To support, take care of.
[22] An avenue for Māori to enact health care within a Māori worldview (Rolleston et al. 2020).
[23] Correct procedure, custom.

accepted practices of mental health nursing. However, even a model as "Fairly straightforward" as Safewards may encounter resistance to change in mental health nursing (Knauf et al., 2024, p. 10). This is because even minor modifications to existing mental health nursing practices can pose challenges and sustaining or replicating successful improvements can be a difficult task (Breckenridge et al., 2019; Higgins et al., 2018). This study identified critical factors for successful implementation: staff engagement; resource funding; clinical leadership buy-in; and establishing a community of practice.

Co-design provides key stakeholders, including staff, individuals with lived experience and carers, with the opportunity to actively shape change (Whāraurau, n.d.). This is accomplished through the collaborative sharing of expert perspectives to generate meaningful improvements (Whāraurau, n.d.). Co-design is becoming a primary framework for directing the creation and introduction of new services, including acute mental health inpatient units (Tindall et al., 2021). Kipping et al. (2019) support co-creation implementation to improve Safewards fidelity. Co-design was used to develop the New Zealand Safewards model, where focus groups collected staff and tangata whai ora perspectives to adapt the model and plan implementation (Knauf et al., 2024). This resulted in certain Safewards interventions complementing the study setting's ongoing priorities. The alignment of Safewards interventions with established priorities or practices contributed to a sense of continuity for staff. Leveraging this familiarity during change management could be done strategically.

Implementation design

With varying methods of Safewards implementation reported in the literature, such as a package of 10 interventions or staging implementation, there is no evaluation of the order of implementation in the literature. The Safewards handbook from Victoria State Government (2016a) asks readers to consider what intervention to implement first and the rationale. Victoria State Government (2016a) suggest starting with interventions that make a big impact immediately, such as KEO's engagement with staff and service users and its visual appeal. Their order of implementation in the one-day workshop was designed to flow effectively, alternating between straightforward and more complex interventions (Victoria State Government, 2016b). Price et al. (2016) stated that TD, SW and Re were the most adhered-to interventions, suggesting they may be useful to implement sooner.

From the findings of focus groups, this paper recommends a staged implementation and starting with what is already occurring or is most consistent with current practice (Table 5). This study had

a positive response to BNM, which seemed to resonate with staff, suggesting this may be a good lead intervention. PW had strong support for the communal display which was reflected in the way staff were seen to communicate. This paper recommends that interventions with physical components, such as reading posters, maintaining displays or completing forms occur later when staff can see the value of Safewards and are more prepared to change their practice. Given staff's reservations on KEO, this intervention is recommended to be implemented last and only with staff at first. Forms are suggested to be limited to just favourite music, movies and without photographs. If feedback from stakeholders is not considered, and implementation not adapted to the setting, this could lead to fragmented application of interventions and reduced commitment by staff to the Safewards model.

Following the recommendation of Dawson (2020), once the order of interventions is established, implementation could be supported alongside the Six Core Strategies (Te Pou, 2020). The Safewards model and the Six Core Strategies have direct comparisons (Knauf et al., 2023). Leadership is interwoven throughout the Six Core Strategies, reflecting the need for leadership during Safewards implementation from management, nursing leaders and cultural leaders.

Limitations

Several limitations need to be considered. The study's focus on a single acute adult inpatient mental health unit may not fully capture the diverse experiences in other settings. Also, the recruitment of a higher number of tangata whai ora would have been ideal for the study's objectives. Engagement of staff and changes in personnel were further limitations. The perspectives of more multidisciplinary team members could have enriched data and there was a change in charge nurse manager at the outset of implementation. The resignation of the kaitakawaenga before the focus groups were conducted may have affected the continuity of the study. Despite the identified significance of the kaitakawaenga, multiple demands on this role meant that there was a notable challenge in their capacity to engage throughout the study.

Conclusion

This paper identifies practical strategies for Safewards implementation based on the experiences of staff and tangata whai ora. One key finding that sets this study apart is the attempt to improve efficacy of staging Safewards interventions by starting with the most familiar intervention first. This approach stands in contrast to previous research that has introduced all ten interventions simultaneously. This research demonstrates that beginning with familiar interventions may

facilitate smoother implementation and foster a sense of reassurance and cooperation among staff and tangata whai ora.

The findings establish the significance of adaptation to the local context, particularly culturally. This paper emphasises the need for tailoring Safewards interventions to align with the unique cultural context of the study setting. Additionally, the findings highlight the importance of considering the length of stay of inpatient settings. Length of stay is a critical factor that warrants inclusion in future research to provide a comprehensive understanding of Safewards implementation.

This research shows the importance of integration and alignment of the Safewards model with existing strategies, particularly the Six Core Strategies. A well-planned integration with established frameworks enhances the sustainability and effectiveness of Safewards interventions. By directly aligning with ongoing initiatives, Safewards becomes a cohesive part of the broader mental health care strategy, reinforcing its impact and creating a unified approach to least restrictive care.

Recommendations

To advance the Safewards model, future studies should add to the limited body of literature on the adaptation and implementation of the Safewards model to different cultural contexts. New Zealand implementation studies should consider the recommendations of this paper and those of Dawson (2020). Future international studies may consider designing and evaluating adaptations tailored to varying length of stay within mental health settings. There is an opportunity for research to explore the most effective order of introducing interventions. Notably, the limited representation of service user voices in previous publications underscores an important gap that needs addressing.

Relevance for clinical practice

The established benefits of Safewards in reducing incidents of conflict and containment can be more easily achieved by staging the ten interventions, and by attending to staff feedback throughout the process of implementation. Leaders' recognition of difficulties experienced by staff in changing practices can be mitigated by careful implementation strategies.

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Tables

Table 1: *Brief summary of United Kingdom Safewards interventions*

Safewards intervention	In-text Abbreviation	Definition
Clear Mutual Expectations	CME	Collaboratively designed standards of behaviour for patients and staff that are publicly displayed.
Soft Words	SW	Displayed statements on how to manage flashpoints; changed after several days.
Talk Down	TD	A de-escalation model is used to prevent flashpoints and to improve staff skills.
Positive Words	PW	At every nursing handover, something positive is said about each patient.
Bad News Mitigation	BNM	Assessment and identification of situations where bad news may be delivered and intervening to prevent a flashpoint.
Know Each Other	KEO	Shared staff information, according to a template, which is displayed publicly e.g., favourite movie and sport.
Mutual Help Meeting	MHM	A meeting for patients to build rapport with one another and identify how they may help each other.
Calm Down Methods	CDM	Sensory modulation tools for patients to utilise in times of distress.
Reassurance	Re	Following up with patients after incidents on the ward to debrief and support them.
Discharge Messages	DM	Public display of positive messages left by other patients on the day of their discharge.

Adapted from www.safewards.net

Table 2: *New Zealand Safewards model*

Safewards intervention	Intervention description	Adaptation or implementation
Tikanga Hourua Mutual Expectations	Tangata whai ora and staff agree on behaviour that is expected when on the inpatient unit.	Limited to five.
Whakawhanaungatanga Know Each Other	Staff give information about themselves that they are happy to share (e.g., favourite TV show, hobbies, pets). Tangata whai ora are also encouraged to share these.	Staff booklet. Tangata whai ora wall display.
Kupu Ngaawari Soft Words	Visual clues for staff about sensitive and respectful communication.	A second poster that aligns with the Māori lunar calendar.
Mauri tau De-escalation	Staff use their communication skills to help tangata whai ora calm down when they are upset, agitated or distressed.	Language aligned to what is already in practice. The poster included considerations for working with Māori.
Kaitiakitanga Bad News Mitigation	Make sure that staff are aware when tangata whai ora have or may receive bad news and make sure they are offered support and a quiet place to express their feelings.	Embed safety huddles into practice.
Rongo Pou Tokomanawa Sensory Modulation	A box of items that tangata whai ora can use to feel calmer and more relaxed.	Language aligned to what is already in practice.
Whakaahuru Debrief	Reassurance about incidents with tangata whai ora in a group or one-on-one.	Language aligned to what is already in practice.
Kupu Whakamana Positive Words	Staff focus on client strengths using positive words during clinical handover.	Used poi as a physical prompt that could be handed to the next nurse. SBAR+P structure.
Kupu manawa ora Messages of Hope	A display of positive and helpful messages written by tangata whai ora or their carers	The name changed as a message could be left at any stage of stay and by anyone.
Awhi mai, awhi atu Mutual Help Meetings	Regular meetings on the unit where tangata whai ora and staff are encouraged to identify ways of helping each other and participating in whakawhanaungatanga.	Morning meeting, combined with whakamoemiti. Included waiata.
Te Kawa Powhiri Process	The process to welcome tangata whai ora and whānau into adult acute Inpatient wards at admission.	To support the ward's focus on welcoming people.

Adapted from the Safewards model www.safewards.net

Table 3: *Focus group demographic*

Variable	Frequency	Percentage
Focus groups (n)		
Tāngata whai ora	1	25%
Staff	3	75%
Participants (n)		
Tāngata whai ora	4	23%
Staff	13	76%
Current role (staff)		
Registered nurse	5	29%
Mental health assistant	4	23%
Kaitakawaenga	1	6%
Management	3	18%
Gender		
Male	8	47%
Female	9	53%
Age		
20-30	3	18%
31-40	4	23%
41-50	5	29%
51-60	5	29%
Years of experience (staff)		
0-5	6	35%
6-10	3	18%
11+	4	23%
Ethnicity		
New Zealand European	5	29%
Māori	8	47%
Samoan	2	12%
Cook Island Māori	1	6%
Filipino	1	6%

Table 4: *Summary of thematic analysis*

Perceptions of tangata whai ora and staff

Barriers

Level of application

- Neglect/disuse of intervention.
- Informally: problematic, it will lead to reduced commitment but there needs to be a balance between routine/requested and voluntary participation.
- Applicability/utility is variable, dependent on acuity.

Ward dynamics

- Acuity & length of stay: but interventions can be modified or adapted
- Staff time to care
- Time factor affected MHM, KEO, DM

Communal material management

- Communal display barriers
- Sensory modulation stock and care

Enablers

Endorsement of interventions

- Role-modelling & leadership
- Evidence of tangata whai ora driving interventions (i.e., DM)

Design & implementation

- Consistent with current (or expected) practice (i.e., Re)
- Orientation and education
- Co-design

Cultural Adaptations

- Whakawhanaungatanga (KEO), poi (PW), mahuru (SW), tikanga, whaanau, manaaki, waiata
- 11th intervention: Powhiri process
- Kaitakawaenga

Table 5: *Recommended order of staged implementation*

Level of difficulty	**Recommended implementation order**
Moderate	Bad News Mitigation
	Positive Words
	Powhiri (Welcoming) Process
	Reassurance
	Soft Words
	Clear Mutual Expectations
Challenging	Talk Down
	Calm Down Methods
	Mutual Help Meeting
Difficult	Discharge Messages
	Know Each Other

5.3 Part two: Evaluative findings

Evaluative findings take the form of quantitative data collected as part of the Safewards data and includes routinely collected DHB data. Given the presence of overlapping quality improvement initiatives, such as RTC and seclusion reduction efforts, these factors may act as confounding variables and are relevant to consider in the analysis. Quantitative research analyses numerical data to uncover patterns and relationships and authenticate measurements used in answering research questions (Kotronoulas et al., 2023). This part of the findings chapter presents the quantitative findings from phase two and three of this evaluative study. Firstly, it will describe the characteristics of the study setting during the study period through tangata whai ora Group characteristics. It will then discuss data collected from Safewards tools, the Safewards PCC and EssenCES. Most data compare across three time periods of Safewards implementation: (a) pre-implementation; (b) implementation; and (c) post-implementation. It may also compare across: time (months); settings (open side and LSA); or people (staff and tangata whai ora). Finally, it will analyse Te Whatu Ora data: Datix incident reporting; restraint; seclusion; Releasing Time to Care; and PRN audit. These findings aim to see how data changes across the implementation period to see what effect the Safewards model has on rates of conflict and containment.

5.3.1 Group characteristics

Table 7 show the Group characteristics of tangata whai ora during pre-implementation, implementation and post-implementation periods.

Table 7: *Group characteristics, at study time points*

Group characteristic	Pre-implementation 11/04/2022-11/07/2022	Implementation 23/11/2022-26/02/2023	Post-implementation 11/07/2023-11/10/2023
Total admissions	166	189	150
Mean length of stay	7.3	6.7	6.7
Max length of stay	113.1	71.3	45.7
Min length of stay	0.5	0	0
Mean age	34	37	37
Male	105	103	74
Female	63	86	76
Māori	109	121	88
New Zealand European/Pakeha	43	46	45
Other European	4	11	1
Indian	2	0	9
Tongan	2	2	1
Fijian	1	1	1
Middle Eastern	1	2	0
Not Stated	1	1	1
Cook Island Māori	0	0	2
Niuean	1	1	0
Other Pacific Peoples	1	1	0
Other Asian	0	2	0
African	1	0	0
Latin/Hispanic	0	1	0
Southeast Asian	0	0	1
Chinese	0	0	1
Paranoid schizophrenia	25	33	11
Not characterised yet	0	0	50
Schizophrenia, unspecified	21	12	14
Bipolar affective disorder, current episode manic with psychotic symptoms	11	20	13
Schizoaffective disorder, unspecified	13	15	9
Mental and behavioural disorders due to use of cannabinoids, psychotic disorder	15	0	14
Schizoaffective disorder, manic type	12	13	0
Unspecified nonorganic psychosis	10	12	0
Mental and behavioural disorders due to use of other stimulants, including caffeine, psychotic disorder, methylamphetamine	0	14	0
Bipolar affective disorder, current episode manic without psychotic symptoms	0	0	5

Comparing the three phases show that the implementation period had the highest turnover, with 189 admission events. The average admission length across the three periods was 6.9 days. The

maximum length of stay rates show that, despite the setting being designed for short term assessment and treatment, the maximum length of stay was 113.1 days in the pre-implementation period. Tangata whai ora are most likely to be 36 years old Māori men with paranoid schizophrenia.

5.3.2 Patient-staff conflict checklist

The PCC was collected to measure changes in rates of conflict and containment across the implementation period. A checklist was completed by a nurse on both the open side and the LSA (low stimulus area) at the end of every eight-hour shift. The key measures are: (a) conflict; (b) containment; (c) serious conflict; and (d) highly coercive. These are compared against the three study phases: (a) pre-implementation 04/04/2022-10/07/2022; (b) implementation 11/07/2022-11/07/2023; and (c) post-implementation 12/07/2023-17/10/2023.

Response Frequencies

The response frequencies collected during the study are crucial in comparing the results across the collection period. A combined total of 1775 PCC surveys were collected between 04/04/2022 and 17/10/2023 from both ward settings. Data were exported from SPSS on 29/11/2023 for analysis.

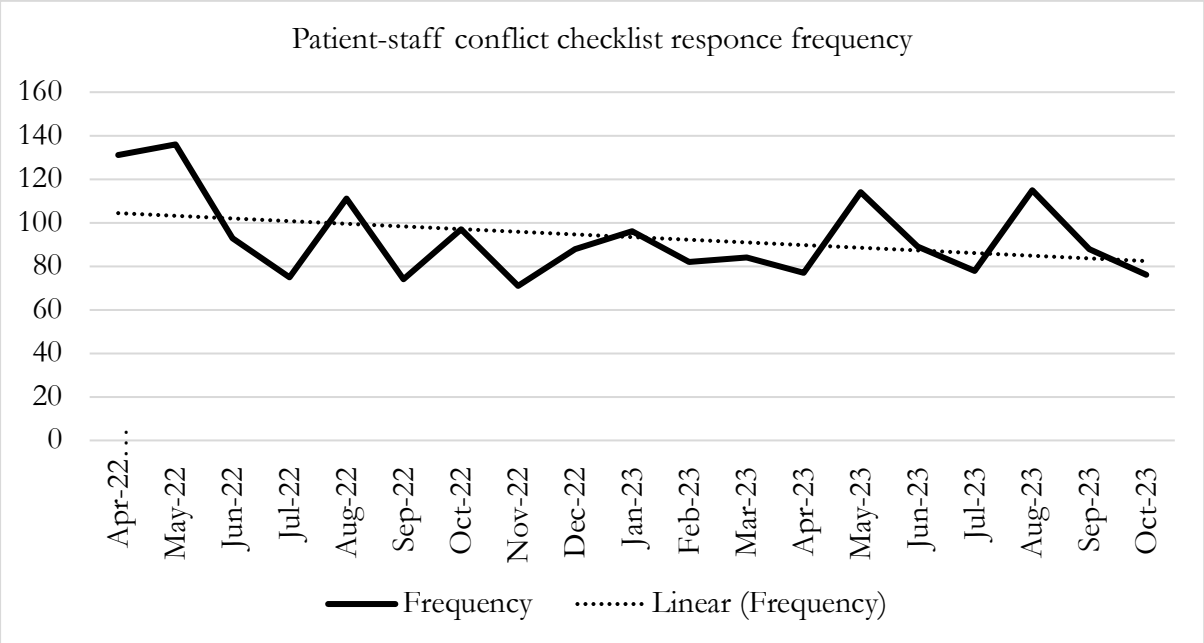

Figure 5: *PCC response frequency*

The frequency rates across the two settings, the open side (N=867) and the LSA (n=908), were almost evenly split. Frequency rates across the three shifts were also relatively evenly split across the collection period: morning shift completing 685; afternoon shift 601; and night shift 489.

Figure **5** shows that PCC response frequency fluctuated across implementation. The range was 71-136 with the trendline ultimately showing an overall gradual decline in PCC responses as the study period progressed.

Means descriptions

Table 8 compares the mean of the three study phases of pre-implementation, implementation and post-implementation against the conflict, containment, serious conflict and highly coercive PCC questions.

Table 8: *PCC means summary*

Means report (Patient-staff conflict checklist)					
3 study phases		**Conflict Q5 to Q10**	**Containment Q11 1-9**	**Serious conflict Q5_3**	**Highly coercive Q11_8, Q11_4, Q11_2**
Pre-imp	**N**	391	391	391	391
	Mean	8.11	3.05	0.39	0.51
	Median	7.00	3.00	0.00	0.00
	Std. Deviation	7.39	3.29	1.09	1.25
Imp	**N**	1053	1053	1053	1053
	Mean	5.79	2.96	0.29	0.45
	Median	5.00	3.00	0.00	0.00
	Std. Deviation	5.55	2.68	0.89	0.95
Post-imp	**N**	331	331	331	331
	Mean	4.93	2.64	0.18	0.48
	Median	4.00	2.00	0.00	0.00
	Std. Deviation	4.90	2.36	0.62	0.89
Total	**N**	1775	1775	1775	1775
	Mean	6.14	2.92	0.29	0.47
	Median	5.00	3.00	0.00	0.00
	Std. Deviation	5.99	2.77	0.90	1.02

Across the three study phases, there was a reduction in the mean of all four key measures, indicating a reduction in conflict, containment, serious conflict and highly coercive practices as the Safewards implementation period progressed. These findings are explored further in the following section.

Non-parametric tests

Non-parametric tests were performed on the four key measures across the three study phases. The key measures form the subheadings of this section and each section describes the extent and statistical significance of the reduction of the key measures to begin to evaluate the effect of the implementation of the Safewards model.

Conflict

On the PCC, conflict questions comprised of questions five to 10. Table 9 shows responses across the three time periods and compares the descriptive statistics.

Table 9: *Conflict descriptives*

Conflict descriptives Q5 to Q10						
	N	**Mean**	**Std. Deviation**	**Std. Error**	**95% Confidence Interval for Mean**	
					Lower Bound	**Upper Bound**
Pre-imp	391	8.11	7.39	0.37	7.37	8.85
Imp	1053	5.79	5.55	0.17	5.46	6.13
Post-imp	331	4.93	4.90	0.26	4.40	5.46
Total	1775	6.14	5.99	0.14	5.86	6.42

Before Safewards was implemented in the study setting, the mean conflict events were 8.1151 which reduced to 5.7977 when Safewards was implemented before reducing further to 4.9396 after Safewards implementation. All three time periods have low standard deviations close to the mean, indicating the value ranges are low. Low standard errors of the three time periods show that the estimated mean is close to the true value. The narrow range of the 95% confidence interval suggests that the reported means are an accurate estimate.

An Analysis of Variance (ANOVA) was used to determine differences between the research results of the three time periods. The reduction in mean conflict events throughout the three study phases

overall reached statistical significance (<0.001) (Table 10). This result is expanded upon in the discussion below of multiple comparisons.

Table 10: *Conflict variance analysis*

Conflict variance analysis Q5 to Q10					
	Sum of Squares	**df**	**Mean Square**	**F**	**Sig.**
Between Groups	2125.50	2	1062.75	30.50	**<.**001
Within Groups	61736.52	1772	34.84		
Total	63862.03	1774			

Multiple comparisons were made of the conflict questions against the three time periods using Tukey's Honestly Significant Difference (HSD) to test sample mean difference for significance.

Table 11: *Conflict multiple comparisons*

Conflict multiple comparisons Q5 to Q10						
(I) 3 study phases	**(J) 3 study phases**	**Mean Difference (I-J)**	**Std. Error**	**Sig.**	**95% Confidence Interval**	
					Lower Bound	**Upper Bound**
Pre-imp	**Imp**	2.31*	0.34	<.001	1.49	3.13
	Post-imp	3.17*	0.44	<.001	2.14	4.20
Imp	**Pre-imp**	-2.31*	0.34	<.001	-3.13	-1.49
	Post-imp	0.85	0.37	0.055	-.014	1.73
Post-imp	**Pre-imp**	-3.17*	0.44	<.001	-4.20	-2.14
	Imp	-0.85	0.37	0.055	-1.73	0.01

* $p < 0.05$

When comparing the mean difference between each study phase, all reached a level of statistical significance, except when comparing the mean difference between the implementation phase and the post-implementation phase as the significance result is 0.55. Low standard errors of the three time periods show that the estimated mean difference is close to the true value (Table 11).

Containment

Containment scores on the PCC were collected under the question 11 sub-questions. Table 12 shows responses across the three time periods and comparisons using descriptive statistics.

Table 12: *Containment descriptives*

Containment descriptives Q11- 1-9						
	N	**Mean**	**Std. Deviation**	**Std. Error**	**95% Confidence Interval for Mean**	
					Lower Bound	**Upper Bound**
Pre-imp	391	3.05	3.29	0.16	2.72	3.38
Imp	1053	2.96	2.68	0.08	2.80	3.12
Post-imp	331	2.64	2.36	0.12	2.38	2.89
Total	1775	2.92	2.77	0.06	2.79	3.05

Before Safewards was implemented, the mean containment events were 3.0537 which reduced to 2.9668 when Safewards was implemented before reducing further to 2.6405 after Safewards implementation. All three time periods have low standard deviations close to the mean, indicating the value ranges are low. Low standard errors of the three time periods show that the estimated mean is close to the true value. Falling within the 95% confidence interval, it can be predicted that the three means are an accurate estimate.

Table 13: *Containment variance analysis*

Containment variance analysis Q11 1-9					
	Sum of Squares	**df**	**Mean Square**	**F**	**Sig.**
Between Groups	35.10	2	17.55	2.27	0.103
Within Groups	13663.92	1772	7.71		
Total	13699.03	1774			

The reduction in mean containment events throughout the three study phases did not reach a level of statistical significance (0.103) (Table 13). This result is expanded upon in the multiple comparisons.

Table 14: *Containment multiple comparisons*

Containment multiple comparisons Q11 1-9						
(I) 3 study phases	**(J) 3 study phases**	**Mean Difference (I-J)**	**Std. Error**	**Sig.**	**95% Confidence Interval**	
					Lower Bound	**Upper Bound**
Pre-imp	**Imp**	0.08	0.16	0.857	-0.29	0.47
	Post-imp	0.41	0.20	0.114	-0.07	0.89
Imp	**Pre-imp**	-0.08	0.16	0.857	-0.47	0.29
	Post-imp	0.32	0.17	0.149	-0.08	0.73
Post-imp	**Pre-imp**	-0.41	0.20	0.114	-0.89	0.07
	Imp	-0.32	0.17	0.149	-0.73	0.08

$p < 0.05$

When comparing the mean difference between each study phase (

Table 14), none reached a level of statistical significance as the values are all >0.05. Low standard errors of the three time periods show that the estimated mean difference is close to the true value.

Serious conflict

Serious conflict questions, were questions concerning aggression and were scored under question five. Descriptives are compared across the three time periods in Table 15.

Table 15: *Serious conflict descriptives*

Serious conflict descriptives Q5_3						
	N	**Mean**	**Std. Deviation**	**Std. Error**	**95% Confidence Interval for Mean**	
					Lower Bound	**Upper Bound**
Pre-imp	391	0.39	1.09	0.05	0.28	0.50
Imp	1053	0.29	0.89	0.02	0.24	0.35
Post-imp	331	0.18	0.62	0.03	0.11	0.25
Total	1775	0.29	0.90	0.02	0.25	0.34

Before Safewards was implemented in the study setting, the mean serious conflict events were 0.3964 which reduced to 0.2982 when Safewards was implemented before reducing further to 0.1873 after Safewards implementation. All three time periods have high standard deviations compared to the mean, indicating the value ranges are wider. Low standard errors of the three time periods show that the estimated mean is close to the true value. All three time period's means fall within the 95% confidence interval and it can be predicted that the values are an accurate estimate.

Table 16: *Serious conflict variance analysis*

Serious conflict variance analysis Q5_3					
	Sum of Squares	**df**	**Mean Square**	**F**	**Sig.**
Between Groups	7.84	2	3.92	4.80	0.008
Within Groups	1446.30	1772	0.81		
Total	1454.14	1774			

This reduction in serious conflict events between the three study phases overall reached a level of statistical significance (0.008) (Table 16). This result is expanded upon in the multiple comparisons.

Table 17: *Serious conflict multiple comparisons*

Serious conflict multiple comparisons Q5_3						
(I) 3 study phases	**(J) 3 study phases**	**Mean Difference (I-J)**	**Std. Error**	**Sig.**	**95% Confidence Interval**	
					Lower Bound	**Upper Bound**
Pre-imp	**Imp**	0.09	0.05	0.158	-0.02	0.22
	Post-imp	0.20*	0.06	0.006	.050	0.36
Imp	**Pre-imp**	-0.098	0.05	0.158	-0.22	0.02
	Post-imp	0.110	0.05	0.126	-0.02	0.24
Post-imp	**Pre-imp**	-0.20*	0.06	0.006	-.036	-0.05
	Imp	-0.11	0.05	0.126	-0.24	0.02

*. The mean difference is significant at the 0.05 level.

When comparing the mean difference between each study phase (Table 17), none reached a level of statistical significance. Pre-implementation and post-implementation, was the nearest at 0.006. Low standard errors of the three time periods show that the estimated mean difference is close to the true value.

Highly coercive

Data on highly coercive measures came from three sub-questions under question 11 regarding highly coercive containment measures. These are compared in Table 18 across the three time periods.

Table 18: *Highly coercive descriptives*

Highly coercive descriptives Q11_8, Q11_4, Q11_2						
	N	**Mean**	**Std. Deviation**	**Std. Error**	**95% Confidence Interval for Mean**	
					Lower Bound	**Upper Bound**
Pre-imp	391	0.51	1.25	0.06	0.39	0.64
Imp	1053	0.45	0.95	0.02	0.40	0.51
Post-imp	331	0.48	0.89	0.04	0.38	0.58
Total	1775	0.47	1.02	0.02	0.42	0.52

Before Safewards was implemented in the study setting, the mean highly coercive events were 0.5192 which reduced to 0.4587 when Safewards was implemented, before increasing to 0.4864 after Safewards implementation. All three time periods have higher standard deviations, particularly pre-implementation, compared to the mean, indicating the value range is wider. A low standard error of the implementation period shows that the estimated mean is close to the true value than pre- and post-implementation. All three time period means fall within the 95% confidence interval and it can be predicted that the values are an accurate estimate.

Table 19: *Highly coercive variance analysis*

Highly coercive variance analysis Q11_8, Q11_4, Q11_2					
	Sum of Squares	**df**	**Mean Square**	**F**	**Sig.**
Between Groups	1.07	2	0.53	0.51	0.596
Within Groups	1845.74	1772	1.04		
Total	1846.82	1774			

Reductions in highly coercive events during the three study phases did not reach a level of statistical significance (0.596) (Table 19). This result is expanded upon in multiple comparisons.

Table 20: *Highly coercive multiple comparisons*

Highly coercive multiple comparisons Q11_8, Q11_4, Q11_2						
(I) 3 study phases	**(J) 3 study phases**	**Mean Difference (I-J)**	**Std. Error**	**Sig.**	**95% Confidence Interval**	
					Lower Bound	**Upper Bound**
Pre-imp	**Imp**	0.06	0.06	0.576	-0.08	0.20
	Post-imp	0.03	0.07	0.903	-0.14	0.21
Imp	**Pre-imp**	-0.06	0.06	0.576	-0.20	0.08
	Post-imp	-0.02	0.06	0.903	-0.17	0.12
Post-imp	**Pre-imp**	-0.03	0.07	0.903	-0.21	0.14
	Imp	0.02	0.06	0.903	-0.12	0.17
$p < 0.05$						

When comparing the mean difference between each study phase (Table 20), none reached a level of statistical significance. Low standard errors of the three time periods show that the estimated mean difference is close to the true value.

PCC audit

Safety crosses are a calendar tool that is used in Releasing Time to Care (see chapter one) to collect and present data to identify areas for improvement (Montgomery et al. 2018). Safety crosses were used in this study to audit PCC completion across three shifts (morning, afternoon and night) in two wards (open side and LSA). Safewards (n.d.-a) state that PCC completion rates need to average 66% or better (see chapter four).

Table 21: *PCC audit*

Month	LSA[24] AM[25]	LSA PM[26]	LSA Nocte[27]	O/S[28] AM	O/S PM	O/S Nocte	Month average %
Apr-22	60	63	76	86	70	73	71.33
May-22	80	45	51	64	83	61	64.00
Jun-22	63	20	40	56	70	36	47.50
Jul-22	80	45	61	64	83	61	65.67
Aug-22	61	51	51	58	54	61	56.00
Sep-22	73	36	33	66	70	26	50.67
Oct-22	87	51	19	58	64	32	51.83
Nov-22	66	63	16	36	43	10	39.00
Dec-22	32	19	32	29	25	29	27.67
Jan-23	77	41	41	45	45	41	48.33
Feb-23	64	75	53	39	28	39	49.67
Mar-23	67	32	51	29	22	67	44.67
Apr-23	70	23	66	16	23	56	42.33
May-23	80	25	58	70	61	58	58.67
Jun-23	73	60	33	43	70	16	49.17
Jul-23	70	38	3	48	74	6	39.83
Aug-23	70	58	45	61	90	41	60.83
Sep-23	66	46	60	43	60	13	48.00
Oct-23	81	38	100	50	93	75	72.83
Shift average %	69.47	43.63	46.79	50.58	59.37	42.16	

Table 21 highlights completion rates of 66% or more. Results show that the months at the beginning and end of the study period had the highest rates of PCC completion, with April 2022 scoring 71.33% and October 2023 72.83%. The ward and shift with the highest level of fidelity was the LSA morning shift with 69.47% PCC completion rate. The months with the lowest rates of PCC completion were December 2022 with 27.67%, November 2022 with 39% and July 2023

[24] Low stimulus area
[25] Morning
[26] Afternoon
[27] Night
[28] Open side

with 39.83%. July 2023 saw just 3% PCC completed on night shifts in the LSA and just 6% completed on night shifts in the open side. The shift and ward with the lowest PCC completion rates was night shift in the open side at 42.16%.

PCC Summary

The PCC were collected each shift, in both settings, during the three study phases to measure changes in rates of conflict and containment. A total of 1775 PCC were collected between 11 April 2022 and 17 October 2023. Completion rates were relatively similar across the two settings and three shifts. Across the three study phases, there was a reduction in the mean of all four key measures, indicating a reduction in conflict, containment, serious conflict and highly coercive practices. Only conflict and serious conflict rates reached a level of statistical significance.

5.3.3 Essen Climate Evaluation Schema

The EssenCES was collected to measure changes in ward climate during Safewards implementation. Once a month, a survey was distributed to ward staff and tangata whai ora to complete. The key measures are three subscales: (a) patients' cohesion; (b) experienced safety; and (c) therapeutic hold. Each question was scored on a five-point Likert scale (1) Not at all; (2) Little; (3) Somewhat; (4) Quite a lot; and (5) Very much. The EssenCES is analysed according to the two participant types: staff and tangata whai ora; and two time periods: during staged implementation and at full implementation.

Response frequencies

A total of 222 responses were received between June 2022 – August 2023 from staff (n=174) and tangata whai ora (44). Four surveys were removed as they were missing five or more question responses, leaving 218 for analysis. Questions 1 and 17 were deleted from the data set as they are not scored (Institute of Forensic Psychiatry, 2022). Data were imported from Qualtrics to SPSS October 10 2023 for analysis.

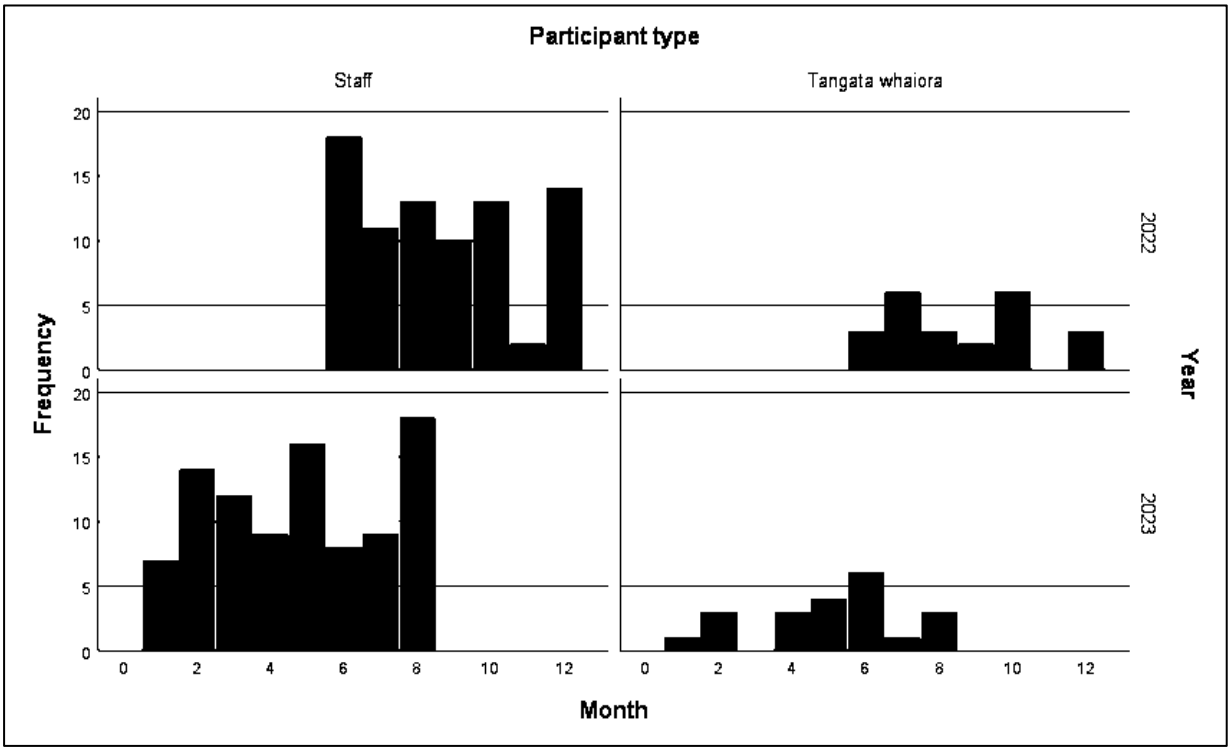

Figure 6: *Participant type frequencies*

Responses were relatively evenly split across the two time periods, 47.7% were received in 2022 and 52.3% were received in 2023. Figure 6 show that completion frequencies of the two participant groups fluctuated over the collection period. Response rates from tangata whai ora remained low during each collection.

Means descriptions

Time period

Table 22 compare the three subscale frequencies against the two time periods.

Table 22: *Time period frequencies*

Time period frequencies case processing summary					
			Cases		
	Report Time Period		Cohesion	Safety	Hold
Implementation	1.00 Jun 2022 - Dec 2022	N	104	104	104
		Mean	15.47	19.79	17.51
		Std. Deviation	3.757	3.87	3.02
		Median	15.00	20.00	18.00
Full model	2.00 Jan 23 – Aug 23	N	114	114	114
		Mean	15.62	19.39	17.88
		Std. Deviation	3.361	3.69	2.60
		Median	15.00	20.00	18.00
	Total	N	218	218	218
		Mean	15.55	19.58	17.71
		Std. Deviation	3.54	3.77	2.81
		Median	15.00	20.00	18.00

The frequencies show little change in means across the three subscales when compared to the two time periods. Median scores were unchanged. Patient cohesion and therapeutic hold means did increase slightly in the second period. The standard deviation narrowed when the Safewards model was fully implemented, particularly for patient cohesion and therapeutic hold.

The Mann-Whitney U test (Table 23) compare test statistics from the two time periods and three subscales.

Table 23: *Test statistics time periods*

Test Statistics[a,b] time periods			
Test	**Cohesion**	**Safety**	**Hold**
Mann-Whitney U	5690.50	5524.50	5381.50
Wilcoxon W	11150.50	12079.50	10841.50
Z	-0.51	-.087	-1.18
Asymp. Sig. (2-tailed)	0.607	0.384	0.236
Exact Sig. (2-tailed)	0.609		0.237
Exact Sig. (1-tailed)	0.304		0.118
Point Probability	0.00		0.00

a. Grouping Variable: time_period

b. Some or all exact significances cannot be computed because there is insufficient memory.

The test frequencies show that when comparing the two time periods against the three subscales, none reached a level of statistical significance due to their values being >0.05.

Participant type

Table 24 compares staff and tangata whai ora frequencies against the three subscales.

Table 24: *Participant type frequencies*

Frequency report participant types				
Participant type		**Cohesion**	**Safety**	**Hold**
Staff	**N**	174	174	174
	Mean	15.14	19.97	17.86
	Std. Deviation	3.05	3.49	2.239
	Median	15.00	20.00	18.00
Tangata whai ora	**N**	44	44	44
	Mean	17.13	18.04	17.09
	Std. Deviation	4.76	4.46	4.38
	Median	17.00	18.00	18.00

Frequencies show that tangata whai ora were slightly more likely to score patient cohesion higher than staff, with a wider standard deviation. Staff were also slightly more likely to score a sense of safety higher than tangata whai ora. Staff were slightly more likely to agree on therapeutic hold scoring due to a narrower standard deviation than the other two subscales.

Table 25 presents test statistics of the three subscales and the two participants types.

Table 25: *Test statistics participant types*

Test statistics participant types			
Test	**Cohesion**	**Safety**	**Hold**
Mann-Whitney U	2530.00	2770.00	3525.00
Wilcoxon W	17755.00	3760.00	4515.00
Z	-3.493	-2.843	-0.818
Asymp. Sig. (2-tailed)	<.001	.004	.413
Exact Sig. (2-tailed)	<.001	.004	.415
Exact Sig. (1-tailed)	<.001	.002	.208
Point Probability	0.00	0.00	0.00
a. Grouping Variable: Participant type			

Test statistics showed that the responses from the two participant types to the three subscales reached a level of statistical significance (<0.05) in patient cohesion and sense of safety, but not therapeutic hold.

EssenCES summary

The EssenCES were completed by staff and tangata whai ora once a month during staged implementation and full implementation phases to measure changes in ward climate. A total of 218 responses were included in the analysis from June 2022 – August 2023. Completion rates were similar across the two time periods but staff responses far outnumbered those of tangata whai ora. Patient cohesion and therapeutic hold means increased in the second period. Interestingly, tangata whai ora were more likely to score patient cohesion higher than staff and staff were more likely to score sense of safety higher than tangata whai ora. Only scores from the two participant types against the three subscales reached a level of statistical significance in patient cohesion and sense of safety.

5.3.4 Fidelity Checklist

The fidelity checklist was completed once a month by an external person to measure the extent to which the seven interventions with a visual aspect were being implemented. A total of 14 checklists were completed.

Table 26: *Fidelity checklist*

Month	Total interventions		Fidelity %		Interventions implemented
	O/S	**LSA**	**O/S**	**LSA**	**O/S & LSA**
Jul-22	2/2	2/2	100	100	SW, PW
Aug-22	2/2	2/2	100	100	SW, PW, BNM, Re
Sep-22	4/4	4/4	100	100	SW, PW, BNM, Re, MHM, TDT
Oct-22	5/5	5/5	100	100	SW, PW, BNM, Re, MHM, TDT, CDM, CME
Nov-22	5/7	5/7	71	71	Full model
Dec-22	5/7	5/7	71	71	Full model
Jan-23	6/7	5/7	85	71	Full model
Feb-23	6/7	5/7	85	71	Full model
Mar-23	6/7	5/7	85	71	Full model
Apr-23	5/7	5/7	71	71	Full model
May-23	5/7	5/7	71	71	Full model
Jun-23	6/7	5/7	85	71	Full model
Jul-23	7/7	5/7	100	71	Full model
Aug-23	6/7	5/7	85	71	Full model

Note: Fidelity checklist is able to check seven of the 10 Safewards interventions

Table 26 shows that results of the fidelity checks. The open side scored an average 86% fidelity score during the study period, compared to the LSA who scored an average 79%. Fidelity measures that were in position for 100% of the checklist collections were: CME poster; CD poster; SW posters; Positive Poi; and MHM posters. The success of these visual displays was likely due to their presentation behind protective windows or in staff areas. DM were displayed 50% of the time in the open side and not at all in the LSA when the fidelity checks were completed. In the open side, a total of 15 DM was displayed throughout the fidelity checks on the designated wall in open side. The KEO staff folder was available only in the open side communal areas 30% of the time and not at all in the LSA when fidelity was checked. Staff profiles in the KEO booklet remained at 10, no further staff added to it. A total of 23 tangata whai ora completed KEO profiles on the designated wall in the open side during fidelity checks, in contrast, none were displayed in LSA.

5.3.5 Te Whatu Ora Waikato data

Te Whatu Ora Waikato data on key clinical events is routinely collected as part of normal operations for practice improvement. Data relevant to this study was requested for three time

periods: (a) three months pre-implementation 11/04/22-11/07/22; (b) three-month implementation mid-point 23/11/22-26/02/23; and (c) three months post-implementation 11/07/23-11/10/23. This section of reported data is additional to the planned Safewards data.

Datix

Datix is an electronic system that records incidents and complaints, helping healthcare settings to prioritise solutions and learn from mistakes (Te Whatu Ora Tairāwhiti, 2017). It relies on staff manually entering Datix events. Relevant to this study are the ten Datix incidents data outlined in Table 27.

Table 27: *Datix incidents*

Datix incident	**Pre-implementation**	**Implementation**	**Post-implementation**
Total reports	107	109	82
Inappropriate/Aggressive Behaviour by a Patient towards an Object/Structure (Not self-harm)	5	3	6
Inappropriate/Aggressive Behaviour towards a Patient by a Patient	13	14	6
Inappropriate/Aggressive Behaviour towards Staff by a Patient	20	24	23
Patient refusal of diagnostic/therapeutic recommendations/interventions	2	8	4
Patient Restraint Processes	50	43	26
Persons Performing Unauthorised Acts	5	1	4
Self-harming Behaviour	3	5	2
Uncooperative/Stubborn patient Behaviour	2	8	5
Use/Possession of Prohibited/Stolen Goods	5	2	3

The measures showed varied results, with some indicators increasing while others decreased. Inappropriate/aggressive behaviour towards a patient by a patient reduced from 13 pre-implementation to six post-implementation. Inappropriate/aggressive behaviours towards staff by a patient increased across the three time periods, from 20 to 24, then finally 23. Patient refusal of diagnostic/therapeutic recommendations/interventions increased during implementation (n=8) before reducing again (n=4). Patient restraint processes almost halved when comparing pre-implementation (n=50) to post-implementation (n=26). Patients performing unauthorised acts reduced during implementation (n=1) before return to almost baseline (n=4). Uncooperative/Stubborn patient behaviour increased from two to eight incidences during implementation. Use/Possession of Prohibited/Stolen Goods decreased after Safewards was implemented. Total Datix incident reports reduced from 107, then 109, to 82 reports after Safewards implementation (Table 27). Due to low numbers in samples, a trend for Datix cannot accurately be read.

Seclusion

Table 28 shows the seclusion statistics, including total events, duration and demographics. Comparisons are shown across the three phases of implementation: pre-implementation; implementation; and post-implementation.

Table 28: *Seclusion statistics*

Seclusion statistics	Pre-implementation 11/04/2022-11/07/2022	Implementation 23/11/2022-26/02/2023	Post-implementation 11/07/2023-11/10/2023
Total events	34	35	21
Average duration hours	31.4	37.84	29.69
Max duration hours	97.11	148	70.83
Min duration hours	11.6	11	8.68
Average age	33.2	34.8	39.09
Average start hour	1530	1600	1500
Average end hour	1300	1330	1200
Male	26	23	9
Female	8	12	12
Māori	22	26	18
NZ European/Pakeha	6	4	3
Other European	3	2	0
Other Pacific peoples	3	2	0
Other European	0	1	0

Comparing total seclusion events, it can be seen that seclusion reduced from 34 events pre-implementation to 21 events post-implementation. Seclusion periods also reduced from 31.4 hours to 29.69 hours when comparing pre-post Safewards implementation. There was a trend of secluding for less hours post-implementation, shown through maximum and minimum seclusion duration. The average start time of seclusion was consistently at the start of the afternoon shift, 1500-1600hrs. The average end hour was remained around 1300hrs respectively. Māori had significantly higher rates of seclusion events compared to non-Māori.

Restraint

Table 29 shows the data for total restraint events for the study setting, including total events, time, prone holds and demographics. Comparisons are made by the three study phases: pre-implementation; implementation; and post-implementation.

Table 29: *Restraint statistics*

Restraint statistics	**Pre-implementation 11/04/2022-11/07/2022**	**Implementation 23/11/2022-26/02/2023**	**Post-implementation 11/07/2023-11/10/2023**
Total events	44	51	41
Average time initiated (hrs)	1428	1441	1324
Average elapsed time	0:04:29	0:04:06	0:03:13
Prone not used	16	19	19
Prone <5 mins	22	29	19
Prone 5-10 mins	4	2	3
Prone >10mins	2	1	0
Average age	34.86	40.52	39.19
Male	33	20	15
Female	11	31	26
Māori	20	15	20
Māori/European	11	6	7
NZ European/Pakeha	5	15	6
Other European	6	10	2
Other Pacific peoples	2	4	0
Indian	0	0	6

Following a similar pattern of seclusion, total restraint events (Table 29) increased during the implementation phase, however post-implementation (n=41) rates are lower than pre-implementation (n=44). Tangata whai ora were mostly likely to be restrained between 1330-1430hrs. Elapsed restraint time reduced throughout the three time periods, reducing by 1 minute 16 seconds from pre-implementation to post-implementation. Restraint technique became less restrictive throughout the study phases, with prone hold not used as often compared to pre-implementation and if it was, it tended to be for less duration. In terms of demographics, higher rates of females were restrained in the latter time periods of the study compared to males. Māori have higher rates of restraint events compared to non-Māori.

Releasing Time to Care

Te Whatu Ora Waikato (n.d.) utilises the Productive Series: Releasing Time to Care (RTC) programme to enable its employees to dedicate more time to direct patient care and optimise productivity. This initiative also encompasses the Productive Mental Health series. Applicable to this study are the RTC: activity follow; patient survey; and staff survey.

Activity follow

Direct care time represents the time available for hands-on patient care, and a greater amount of this time suggests a higher likelihood of maintaining or enhancing the quality of care (Auckland District Health Board, n.d.). Activity follow involves a staff member shadowing a nurse throughout a typical eight-hour morning shift, documenting each activity at the beginning of every minute to assess the extent of direct care time provided (Auckland District Health Board, n.d.). Activity follow was measured in the study setting pre-implementation in March 2022 and near post-implementation in May 2023.

Table 30: *RTC activity measure*

Activity measure	**Mar-2022 %**	**May-2023 %**
Admin (clinical, non-medicine, non-flow)	2.1	0.4
Direct Care (with patient or near the patient)	52.9	64.4
Discussion	5	0.4
Handovers	4.4	5.2
Medicines Management	4.6	2.9
Motion	14.2	2.9
Other	8.3	7.7
Patient Flow (away from patient)	8.1	14.4
Personal Hygiene	0.4	1.7

Table 30 shows the key findings were that more time was released for care: admin time reduced; direct care time increased; time managing medicines reduced; and time spent in motion reduced. Time spent in handovers and managing patient flow increased near post-implementation.

Patient survey

Patient-reported measures gather information on health-related experiences and results which play a crucial role in enhancing the quality of healthcare and addressing disparities at every level of the health system (Health Quality & Safety Commission New Zealand, 2023). RTC collects the patient voice through the patient survey every six months. The patient survey collected pre-

implementation in June 2022 from 12 respondents and near post-implementation in May 2023 from seven respondents.

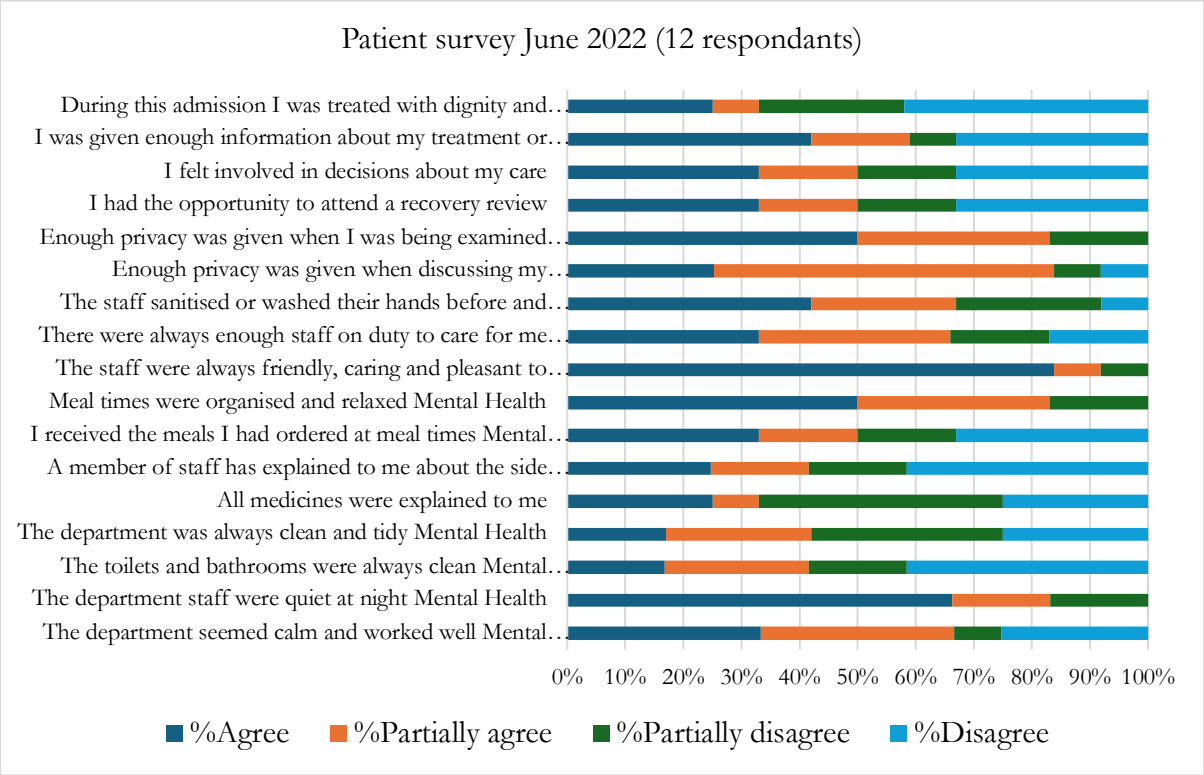

Figure 7: *Patient survey pre-implementation*

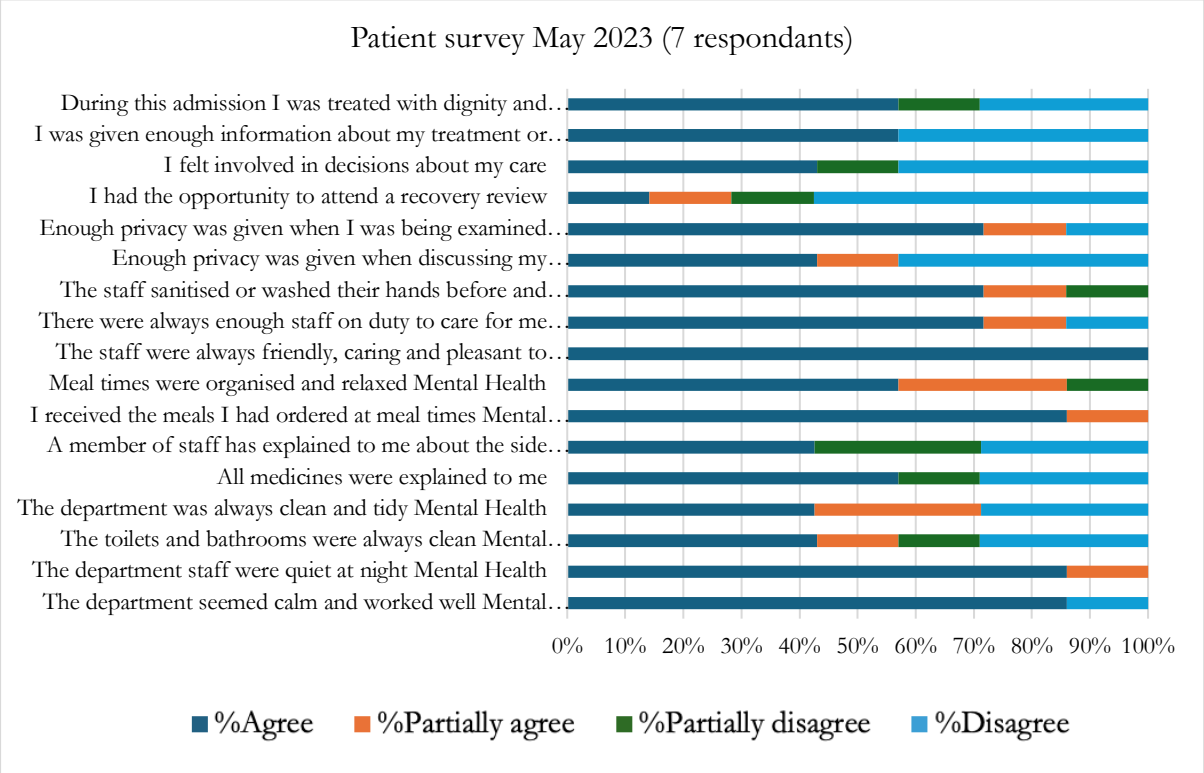

Figure 8: *Patient survey implementation*

Comparing Figure 7 and Figure 8, patient experience, overall, was rated higher post-implementation. Post-implementation, patients were more likely to agree that: they were treated with respect and dignity; were given enough information about their treatment or condition; felt involved in decisions about their care; enough privacy was given when discussing their condition or treatment; there were always enough staff on duty to care for me; the staff were friendly, caring and pleasant; a member of staff has explained to me about the side effects of my medicines; all medicines were explained to them; the department and toilets were clean and tidy; the department staff were quiet at night; and the department seemed calm and worked well.

Staff survey

Employee surveys are also distributed six monthly and the results help to improve staff wellbeing at work and inform improvements (Auckland District Health Board, n.d.). The pre-implementation staff survey was completed by 16 respondents in June 2022 and the post-implementation staff survey was completed by 14 respondents in October 2023.

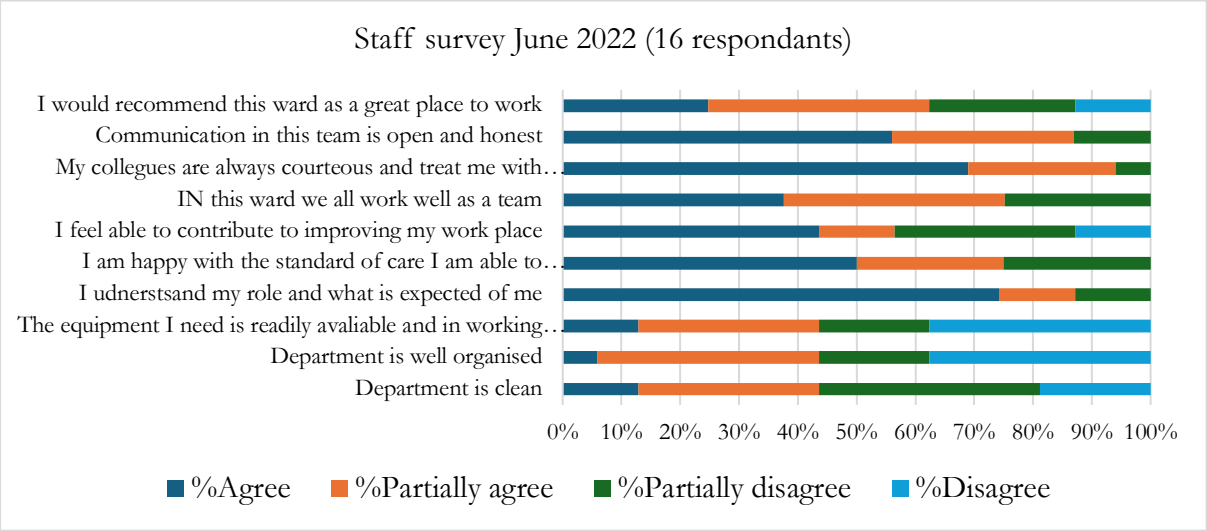

Figure 9: *Staff survey pre-implementation*

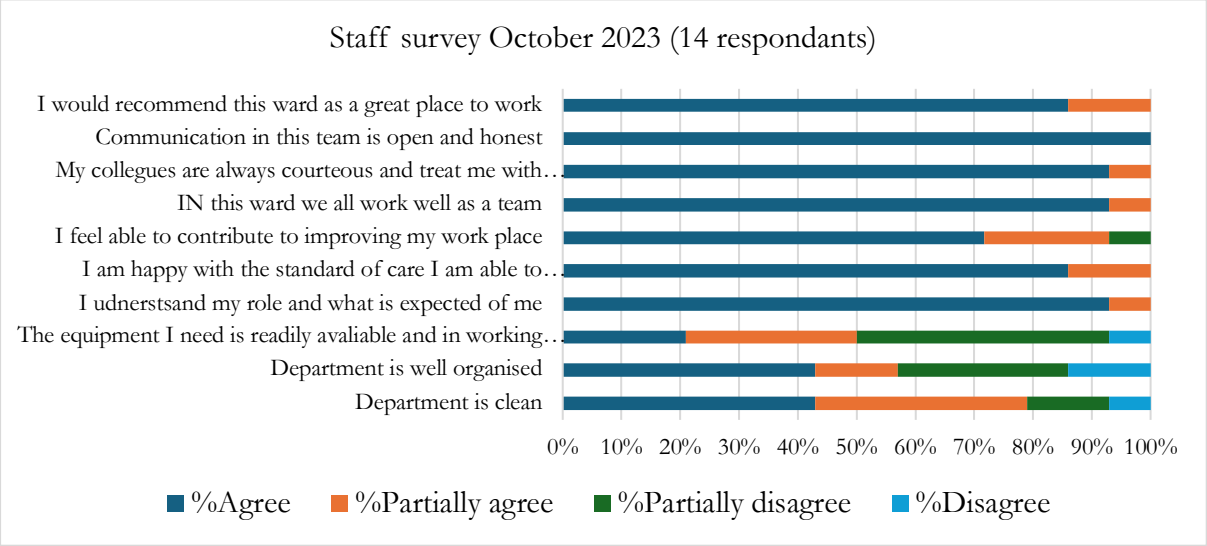

Figure 10: *Staff survey post-implementation*

When comparing Figure 9 and Figure 10, post-implementation responses were more likely to agree than pre-implementation that: they would recommend the ward as a great place to work; communication in the team is open and honest; colleagues are always courteous and treat them with respect; the ward works well as a team; they feel able to contribute to improving their workplace; they are happy with the standard of care they are able to provide; they understand their role and what is expected of them; and the department is clean and well organised.

Pro re nata medication audit

PRN, as needed medication, is administered in addition to regular prescribed doses (Wong & Müller, 2023). Wong and Müller (2023) explain that PRN medications used in a psychiatric setting include antipsychotics, benzodiazepines and sedatives to reduce agitation, anxiety and insomnia

rather than treat the main medical condition. PRN medications are a containment practice and were audited in this study to compare their administration rates before and after Safewards implemenation. The PRN audit form was created by researchers as no suitable audit existed. Digitally uploaded medication charts were audited 17/01/23 and then repeated 11/10/23 and 10/01/24. The second audit period needed to be postponed due to delayed uploading of medication charts. Verbal orders, once only doses and PRN pages were audited. The findings are presented as pre-Safewards 12/06/22 to 11/07/22 and post-Safewards 11/07/23 - 11/08/23 periods.

Table 31 shows that admissions during the pre-Safewards period (n=44) were similar to the post-Safewards period (n=48) which provided a comparable audit sample. The mean age of tangata whai ora was 35 pre and then 39 post-Safewards. The audit sample were most likely to be Māori, followed by New Zealand European.

Table 31: *PRN audit demographics*

Ethnicity	**Pre-Safewards**	**Post-Safewards**
Total tangata whai ora	44	48
Mean age	35	39
Māori	36	29
New Zealand European	13	12
Indian	2	4
Cook Island Māori	2	1
Fijian	2	0
Tongan	1	1
Middle Eastern	1	0
Other European	0	1

Table **32** presents that overall PRN doses increased post-Safewards, increasing from 432 to 443. This finding is limited by the large amount of missing medication chart uploads in the second period, with the auditor having to rely on clinical documentation for PRN administration details. The PRN audit is presented in more detail in Table 33 & Table 34.

Table 32: *PRN audit summary*

Measure	**Pre-Safewards**	**Post-Safewards**
PRN medication doses	432	443
Antipsychotic doses	98	129
Benzodiazepine doses	204	171
Documented PRN effects	236	281

Table 33: *PRN audit pre-Safewards*

	Dose										Route		Initiated	Force		Documented rationale										Effect	
Medication	1mg	2mg	2.5mg	5mg	10mg	25mg	50mg	3.75mg	7.5mg	15mg	Oral	Injection	Tangata whai ora initiated	Restraint	Staff presence	Agitation	Anxiety	Restlessness	Aggression	Irritable	Insomnia	Disordered mood	Paranoid/suspicious	Withdraw	Other*	Effect	Nil effect
Clonazepam											0	0															
Diazepam				5	3						8	0	4											14		3	
Haloperidol			3	1	1						5	0											1		1	1	
Lorazepam	42	165									207	1	9	1	1	15	19	5	7	17	14	18	6	1	19	42	6
Olanzapine				37	47						84	1	6		1	8	6	4	4	6	10	8	2		11	14	3
Promethazine						4	65				69	2	4	1		4	1		1	2	19	4			6	12	2
Quetiapine						5					5	0														1	
Risperidone	2										2	0										1	1			1	
Zopiclone								1	39	10	50	0															
Zuclopenthixol					2						2	0													1	1	
Totals											428	4	23	2	2	27	26	5	12	25	43	31	10	15	37	74	11

*Other: To settle, transfer, sedate, voices, disorganised, psychosis.

Table 34: *PRN audit post-Safewards*

	Dose											Route		Initiated	Force		Documented rationale										Effect	
Medication	0.25mg	0.5mg	1mg	2mg	2.5mg	5mg	7.5mg	10mg	25mg	50mg	100mg	Oral	Injection	Tangata whai ora initiated	Restraint	Staff presence	Agitation	Anxiety	Restlessness	Aggression	Irritable	Insomnia	Disordered mood	Paranoid/suspicious	Withdrawals	Other*	Effect	Nil effect
Clonazepam	3	15	12									30		3			3	5		2			3				3	1
Diazepam												0	0															
Haloperidol					2	16						17	1				9		1	3			2	5		6	7	
Lorazepam		1	15	125								139	2	4	1	1	38	16	1	8	3	2	10	10		26	23	5
Olanzapine						30		66				91	5	2	3	1	12			4	2	1	5	4		12	9	3
Promethazine									26	62		87	1	5			16	2		1	10	10				5	6	3
Quetiapine									2	7	1	10														7	1	
Risperidone			2									2											1				1	
Zopiclone							55					55		5							18	18					8	2
Zuclopenthixol								3				3																
Totals												434	9	19	4	2	78	23	2	18	33	31	21	19	0	56	58	14

*Other: Escort, disinhibited, behavioural disturbance, disorganised, racing thoughts, settling, psychosis, non-apparent stimuli (NAS).

Audit results show that benzodiazepine doses were higher pre-Safewards and antipsychotic PRN doses were higher post-Safewards. Lorazepam, olanzapine, promethazine and zopiclone are the most common PRN medications. Rates of enforced injection route increased post-Safewards from four to nine. Staff presence as a coercive measure for oral administration was documented twice pre and post-Safewards. While not often documented, there is evidence of tangata whai ora seeking PRN medication and finding it therapeutic. Restraint to administer PRN medication doubled from two to four post-Safewards. Pre-Safewards, insomnia, disordered mood and other indications were the three most common reasons for PRN administration. Post-Safewards, agitation, irritability and other indications were the three most common reasons for PRN administration. Both time periods highlight that staff neglect to document the effects of PRN doses with this rate reducing from 85 to 72 documented effects pre to post-Safewards. Results showed that prescribing patterns were variable. Fluctuation occurred outside of practices of existing initiatives, including Safewards, seclusion reduction and Releasing Time to Care. The rationale for these patterns has not been explored in depth but may be related to registrar preference or nurse practice. They are however, not related to Safewards interventions.

Te Whatu Ora Waikato data summary

Te Whatu Ora Waikato routinely collect data to improve care. Post-Safewards implementation showed improvement in the following key areas. Total Datix reports reduced after Safewards implementation. Seclusion hours and total events reduced post-implementation. Post-implementation restraint time and events were lower than pre-implementation. Despite reductions in these containment practices, a significant increase in total PRN administration was not seen. RTC showed more nurse time was released for direct care. Finally, considerable improvements were seen in patient and staff survey responses.

5.4 Summary of findings

Study one built a foundation on which to create a New Zealand Safewards model based on the lessons from international literature. This study helped to understand the barriers and enablers to implementation to support future success. Study two used these findings and the feedback from key stakeholders to adapt and implement the Safewards model for the New Zealand context. Finally, study three evaluated the implementation of a New Zealand Safewards model to measure its suitability from a stakeholder perspective.

These studies directed this research whilst filling gaps in international literature. To further assess the effectiveness of the New Zealand Safewards model, quantitative data were collected.

The subsequent analysis revealed statistically significant reductions in conflict and serious conflict rates, accompanied by a significant increase in patient cohesion and the sense of safety perceived from staff and tangata whai ora. Fidelity scores surpassed those of other Safewards studies, reaching 86% and 79% in the two settings. The number of incident reports reduced. Restraint time reduced as the study progressed and total events reduced post-implemenation. Seclusion time and events increased mid-implementation and then reduced post-implemenation. PRN increased slightly post-implemenation. More nurse time became available for direct care. Finally, positive changes were seen in patient and staff survey responses. These findings suggests that the New Zealand Safewards model may be both feasible and effective.

Chapter 6: Discussion

The important thing is not to stop questioning. Curiosity has its own reason for existence

Albert Einstein, 1879-1955

This is the first Safewards adaptation to be developed in New Zealand and the first to adapt the original Safewards to a specific cultural context. The study produced the first two peer reviewed Safewards publications from New Zealand and a further paper for submission for publication. Study one, Knauf et al. (2023), was an analysis of the barriers and enablers to implementing the Safewards model within inpatient mental health services. Study two Knauf et al. (2024), focused on the implementation and adaptation of the Safewards model in the New Zealand context through perspectives of tangata whai ora and staff. Study three (in review) evaluated the application of the Safewards Model in New Zealand from insights of tangata whai ora and staff. It has also added to the limited body of literature that includes the service user voice. With the addition of these New Zealand publications, gaps in literature have been addressed. Adaptations were driven by: service users; staff; managers; a consumer advisor; and cultural advisors. The Safewards model was further enhanced by extending the model to 11 interventions. Language was a key point of difference for the adapted model, incorporating te reo Māori and adjusting the intervention names to use language that was already occurring in practice. These changes reflect the service setting and the need to address health equity for Māori. The implementation timeframe of this research is longer, and fidelity scores better, than most literature. The results suggest that the New Zealand Safewards model may be both feasible and effective. Within the study setting, the implementation of the Safewards interventions was associated with: reduced conflict; increased patient cohesion; and improved the sense of safety perceived from staff and tangata whai ora. This final chapter provides an integrative discussion drawing on the research findings, including published and unpublished, and relevant literature.

By conducting mixed-method research guided by participatory action research (PAR) principles, this study aimed to design a Safewards model to fit the New Zealand context and implement it at an acute adult inpatient mental health unit at Te Whatu Ora Waikato. The design of the model was influenced by initial stakeholders perspectives. This study then explored tangata whai ora and staff perspectives of the developed Safewards model and examined rates of conflict and containment after a period of implementation. The findings of this study are generated from: (a) qualitative data from key stakeholders, including tangata whai ora, multidisciplinary ward staff, ward and service level management, kaitakawaenga, and consumer advisor; (b) implementation of the adapted

Safewards model, including planning and evaluation; (c) quantitative data from tools used to evaluate the implementation outcomes; and (d) exploration of related literature, including recommendations from Manatū Hauora, New Zealand's Ministry of Health and Te Pou, New Zealand's national workforce development centre.

To address gaps in the literature, this research sought to address the following questions: (a) what adaptations does the Safewards model require to meet the cultural and practical needs of New Zealand adult inpatient services?; (b) what are the perspectives of inpatient tangata whai ora and staff on their experience of the developed New Zealand Safewards model; (c) do conflict and containment rates reduce after implementation of the New Zealand Safewards model; and (d) what changes occur to the ward atmosphere after the Safewards intervention? These questions form the subheadings of this section. To develop this discussion, the findings reported in the three included papers have been reviewed, and this discussion focusses on findings common across the three papers and in other unpublished results. Salient results from individual studies are also commented on here as not all the findings will be apparent in all three papers. This discussion is structured by answering the four research questions through triangulating the findings of this study. It will discuss the impact of the Safewards intervention in creating change and improving inpatient care before considering recommendations for future implementation of the Safewards model. The chapter concludes with a discussion regarding the limitations of the current project and reflections on the research process.

6.1 New Zealand Safewards model requirements

6.1.1 Co-design

This section addresses New Zealand Safewards adaptations requirements identified in the research. This study used a co-design approach to design and implement a New Zealand Safewards model. The benefit of co-design was seen across the three phrases of this study. Co-design supported stakeholder engagement in the project, from onset, that guided the adaptation and implementation of Safewards to the specific context. The research methodology of PAR also supported co-design through the creation of partnerships with stakeholders, increasing engagement, person-centeredness and shared decision making. Other literature has reported co-design of research to be valuable in cultural responsiveness and including service user voice. Advocating for co-design, Te Pou (2023) released a guide to working authentically with the mātau ā-wheako, the Consumer, Peer Support and Lived Experience (CPSLE) workforce, through co-design activity. CPSLE are

central to service evaluation due to their direct lived experience and can also facilitate the engagement of service users in quality improvement initiatives (Te Pou, 2023).

Mahitahi reflects Māori philosophies of: collaboration; collective responsibility; accountability and care; and support (Rolleston et al., 2022; Te Aka, 2024). Rolleston et al. (2022) define that mahitahi is a culturally responsive co-design methodology that develops strategies by incorporating the worldview and perspectives of Māori, the people most impacted by the health system. This approach aligns with co-design principles, and integrating Western and Māori knowledge systems, can create innovative solutions that combine the strengths of both (Rolleston et al., 2022). Co-design is an approach widely used in New Zealand as it brings together tangata whai ora, whānau, communities and staff to understand their experiences and perspectives for improving the health system and achieving more equitable health outcomes (Te Tāhū Hauora Health Quality & Safety Commission, 2023a). CPSLE reflects mahitahi philosophies of: collaboration and support. Te Pou recommend that lived experience and CPSLE workforce should be involved in all stages of quality improvement processes within organisations and their feedback considered (Te Pou, 2023). As part of their role, CPSLE ensure a culturally safe workplace by working within six key values based on Te Tiriti (Te Pou, 2023). As reflected in this study, a New Zealand Safewards model requires a mahitahi approach with staff, tangata whai ora, consumer and cultural advisors. This involves engaging central stakeholders in the development of health-related procedures, services, information, care approaches, environment and regulations that affect them (Te Tāhū Hauora Health Quality & Safety Commission, 2023a). Previous Safewards studies have recommended co-creation to support implementation.

In previous Australian research, Fletcher et al. (2021) identified engaging key stakeholders as an enabler of Safewards implementation. Prior to this, Kipping et al. (2019) also recognised that co-creation, in the design and implementation process, was shown to support Safewards implementation, improving staff engagement, acceptance and adherence. Mahitahi fits within the approach of 'by Māori, for Māori' (Rolleston et al., 2020; Smith, 2021). A Te Whatu Ora Waikato Safewards model requires that co-designed quality initiatives engage Māori. However, co-design is a Western methodology, where mahitahi may be better placed to culturally align with Māori and other Indigenous people (Rolleston et al., 2022). In contrast to other research methodologies, where processes are predetermined and agreed upon before starting, co-design and mahitahi develop naturally throughout the project's progression (Rolleston et al., 2022). An example of mahitai in research was a project that co-designed and implemented a Māori mindfulness mental

health intervention at a school, underpinned by mahitahi (McDonald et al., 2021). Mahitahi occurred within wānanga, which are Māori-centred methods of facilitating the generation, comprehension, and sharing of knowledge (Waitangi Tribunal, 1999). There were three purposes to McDonald et al.'s (2021) bilingual wānanga: (a) explore perspectives; (b) experiment with tools; and (c) design an intervention. Meaningfully, the wānanga were held at culturally significant locations and conducive spaces (McDonald et al., 2021). In the current research, co-design focus groups were supported by kaitakawaenga, and Māori staff were invited to attend, but the concept of mahitahi would need to be explored for future evaluation and implementation.

The current research made some significant adaptations to the Safewards, something that has been previously reported in complex health interventions as well as in previous Safewards studies. Evidence-based population health interventions often require adapting when applying them in new settings (Movsisyan et al., 2021). Tailoring adaptations to the population can help support the implementation of interventions but may add complexity and should still retain the essence of the original Safewards model (Baumgardt et al., 2019; Bowers et al., 2015). Following initial consultation from key stakeholders, including tangata whai ora, multidisciplinary ward staff, ward and service level management, kaitakawaenga, and consumer advisor, the current study identified the need to adapt the Safewards model to incorporate te ao Māori, tikanga and te reo Māori into the Safewards model. This was apparent in focus groups, particularly with tangata whai ora, as shown in the second publication, Knauf et al. (2024). Study three (chapter five) outlined that the final cultural adaptations of the implemented Safewards included concepts. of: manaaki, powhiri; whakamoemiti; whakawhanaungatanga; waiata; maramataka; and whānau. These adaptations allowed the model to remain true to the original Safewards interventions while aligning with existing practices. These findings reflect the recommendation of Dawson (2020) to consider cultural adaptions for the Safewards model. The third study reflects the mahitahi concepts of collective responsibility and collaboration by showing the importance of establishing support from cultural leaders in prior to, and throughout, Safewards implementation.

In the current research, and reflecting previous literature, leadership emerged as an important issue in implementing a Safewards programme. Literature shows that leadership role modelling can reduce resistance to change (Wang et al., 2001) and increase motivation (Morgenroth et al., 2015). This wider research reinforced the findings of this study, where aspects of leadership were evident and showed that a New Zealand Safewards model requires role-modelling from leadership, including leadership during Safewards implementation from management, nursing leaders and

cultural leaders. This links to mahitahi accountability and care, where it is acknowledged that everyone has a role to support and care for one another. Publication two from the current study, in Knauf et al., (2024), showed that role modelling and leadership were crucial in supporting Safewards interventions. A similar finding has been reported in the Six Core Strategies research in which leadership is interwoven throughout the Six Core Strategies, evidence-based approaches to reduce incidents of seclusion and restraint (Te Pou, 2020b). In her thesis report, Dawson (2020) recommended the implementation of the Safewards model alongside the pre-existing Six Core Strategies, with leadership as a key component, a recommendation also supported by the current research (Knauf et al., 2024). However, implementation is not all about leadership and an additional aspect of implementation is the involvement of the whole team. Even though role modelling by leaders can be a significant enabler to support staff engagement and Safewards implementation (Davies et al., 2020; Higgins et al., 2018), successful Safewards implementation requires a whole team approach (Yates & Lathlean, 2022). As a member of the Safewards implementation team and, and by utilising PAR methodology and transformational leadership principles, the researcher helped motivate colleagues through actions, role-modelled Safewards implementation, and provided feedback to achieve organisational change.

6.2 Perspectives of tangata whai ora and staff on the New Zealand Safewards model

6.2.1 Whakawhanaungatanga

This section addresses the perspectives of tangata whai ora and staff on the developed New Zealand Safewards model. Central to these perspectives was the underlying themes of whakawhanaungatanga. Whakawhanaungatanga, the practice of building and sustaining relationships, is best carried out through face-to-face interactions with a sincere and non-judgmental approach to foster trust (Wilson et al., 2021). Whakawhanaungatanga is essential and prioritised in collaborative healthcare efforts and activities (Wilson et al., 2021). In this study, the perspectives of tangata whai ora remind us of the significance of whakawhanaungatanga, given that, most important to tangata whai ora, is to be respected, listened to and shown patience. They want staff to be truthful, provide explanations for being told 'no' and refer them to other staff if they are unable to help them. Their expectation of staff are related back to relationship building, too, where instead of emphasising specialist clinical skills, tangata whai ora gave priority to playing sports or talking about latest news with staff. Tangata whai ora expressed a strong need to be seen as people instead of patients. This is reflected in Safewards interventions, especially Know Each Other, Soft Words, Mutual Help Meeting, Positive Words and Reassurance, which captures being seen as people.

The perspective of wanting to be seen as a person reflect this findings of Wangel et al. (2024), whose systematic review described five core elements of mental health nursing: (a) time; (b) honest engagement; (c) therapeutic relations; (d) professional nursing; and (e) lifetime-perspective. Mental health nursing involves a supportive and caring approach to recovery, emphasising an honest, engaged relationship with the service user that considers their lifelong perspective (Wangel et al., 2024). Time is a crucial element in that caring process (Wangel et al., 2024). One thing that both staff and tangata whai ora agreed upon is that releasing more staff time to care would support whakawhanaungatanga, the building of relationships. This study suggests that Safewards is consistent with core elements of mental health nursing and does not represent a whole new set of skills. An example from the mental health nursing literature, therapeutic relationships (Peplau, 1991), finds an expression in the Safewards intervention of Know Each Other. Despite whakawhanaungatanga not being a new concept for the study setting, a surprising finding was that some staff were reluctant to share minor personal information about themselves as part of Know Each Other. While self-disclosure can be therapeutic, Warrender (2020) found that staff can feel uncertain about appropriate self-disclosure and establishing boundaries. Know Each Other can serve as a valuable framework to educate and model appropriate boundaries and connects well with the purpose of whanaungatanga. Reluctance to self-disclose information may be affected by stigma towards mental illness. Tyerman et al. (2021) reported that service users and nurses sensed that stigma was a barrier to person-centred care, negatively affecting therapeutic relationships. This goes against a key whanaungatanga principle of demonstrating non-judgemental attitudes (Wilson et al., 2021).

6.3 Rates of conflict and containment after the New Zealand Safewards model implementation

6.3.1 Least restrictive care

This section considers the quantitative outcomes of the study, focusing on rates of conflict and containment after the adapted Safewards model was implemented in the study setting. This study saw a reduction in conflict; increased patient cohesion; and improved sense of safety perceived from staff and tangata whai ora. Under the code of Health and Disability Services Consumers' Rights (Health & Disability Comissioner, 1996), service users have a right to freedom from discrimination, coercion, harassment, and exploitation. While Safewards is a model of care aimed at reducing conflict and containment, it can meet resistance from staff. Similarly, nurses hold conflicted views about seclusion. Pohatu and Kake (2024) reported that within a group of New Zealand nurses, their differing perspectives on seclusion were: (a) seclusion is necessary; (b)

seclusion is being used unnecessarily; (c) nurse characteristics influence the use of seclusion; and (d) nurses perceived their ward culture to be improving in the use of seclusion. Internationally, literature shows a long term pattern of these views, with nurses supporting the use of seclusion to manage of violence and aggression (Happell & Harrow, 2010). A sense of conflict likely influences perceptions of some of the Safewards interventions aimed at reducing adverse conflict and containment events. In response to any staff resistance, the results of this study showed that the implementation of the Safewards interventions was associated with statistically significant changes in the rates of conflict and serious conflict. Although these changes cannot be solely attributed to the interventions, the findings are encouraging and highlight the need for further evaluation through an experimental study design. While not reaching statistical significance, it is important to celebrate reduction in restraint time as the study progressed and total events reduced post-implemenation. While seclusion time and events increased mid-implementation, they reduced post-implemenation. Communication of positive results back to staff might help to reduce resistance to Safewards as the impact of the interventions can be demonstrated.

While several other studies reported similar findings to this study, Baumgardt et al. (2020) also reported reduction of coercive measures alongside improved ward atmosphere. Similarly, Maguire et al. (2018) identified positive changes in the ward atmosphere. Inpatients within Hottinen et al.'s (2020) study experienced increased patient cohesion. Interestingly, the staff in Hottinen et al.'s (2020) study, like the staff participants in this study, rated a sense of safety higher than service users. Dawson (2020) reported decreased seclusion events without impacting other containment measures, a finding also seen in this study, although the current study showed an insignificant increase in PRN medication post-implemenation. PRN use was anticipated to be higher than what the audit results showed due to efforts to reduce seclusion and restraint. Fletcher, Hamilton, et al. (2019) reported reduced conflict and containment rates and evaluated the Safewards model as an acceptable practice change. Similarly, Davies et al. (2020) saw the same reductions and their staff generally saw the impact of Safewards as positive. The staff participants in this study also saw value in Safewards and generally accepted the change as providing a positive model of care, prioritising least restrictive, person-centred care.

6.4 Ward atmosphere after the New Zealand Safewards intervention

6.4.1 Releasing Time to Care

This section reflects on changes to the ward atmosphere after Safewards implementation. The interpretation of the ward atmosphere results needs to be seen in the context of the unrelated

Releasing Time to Care (RTC) intervention which was also in progress at the time of Safewards. The RTC activity follows evaluation as part of this study showed that, post- implementation, staff had more time released for direct care. The increase in time spent in handovers may have occurred as a result of Safewards implementation activities, such as planning bad news mitigation, sharing Positive Words or safety huddles. What may have been a direct flow-on effect of releasing time to care, was the post-implementation RTC survey results. This showed that service users felt that they were receiving the care that tangata whai ora in focus groups from both phases began to describe: respect; dignity; given information; felt involved; privacy; sufficient staffing; friendly, caring and pleasant staff; explaining medication; and a quiet and calm environment. When evaluating the ward climate, tangata whai ora felt that patient cohesion had increased, scoring higher than staff. Tangata whai ora also felt that their sense of safety increased, though, interestingly, staff were more likely to score this higher. Staff survey results reported that staff viewed their workplace more positively post-implementation. Of particular importance is that their perception of ward team work increased after the implementation. This is important to note because team work, while not directly identified, is the foundation for several Safewards interventions.

In the face of complex care and staff turnover, teamwork is one component of protecting service user safety (Zaheer et al., 2021). Having shifted away from silo practices that specialised professionals once operated in (Zaheer et al., 2021), prioritising staff time to support teamwork is inevitably going to be a priority for future Safewards implementation. Removing silos is not unique to the healthcare context but is seen across various sectors where teamwork and collaboration are increasingly emphasised as critical for success. Education is an example of this, where institutions are increasingly adopting collaborative learning approaches where students work in groups to problem solve and complete group projects (Johnson & Johnson, 2009). This shift from individual to group work aims to develop teamwork skills and prepare students for the workforce (Johnson & Johnson, 2009). Within healthcare, effective teamwork in the emergency department can enhance quality care and service user safety, reduce clinical errors, shorten waiting times and address staff shortages (Kilner & Sheppard, 2010). Conversely, inadequate teamwork can lead to overlapping tasks, wasted time and resources in emergency situations (Kilner & Sheppard, 2010). Across different healthcare services, teams must be able to apply and integrate their individual skills into team approaches to protect safety and provide best care (Schmutz et al., 2019). Teamwork for Safewards begins with co-designing the implementation, increasing staff buy-in and releasing staff to attend education days as a team. The strength of teamwork was reflected in the

evaluative staff focus group, where role-modelling from leadership, prompts from colleagues (Soft Words) and new-graduate nurses having a safe space to speak up with their concerns (Bad News Mitigation), were reflected upon positively. Safety huddles is an example of effective team communication, where service user safety responsiveness was enhanced in a paediatric intensive care unit using this tool in Aldawood et al. (2020). Similarly, the merging of safety huddles with Bad News Mitigation became embedded in practice within this study (Knauf et al., 2024).

6.5 Safewards implications

6.5.1 Change management

A predicted finding of this study that came to fruition was that creating change in nursing practice can be difficult. This challenge can be reduced through change management practices, particularly role modelling from managers. Although a challenge to implement, the Safewards model is not revolutionising nursing care. The interventions are consistent with what is already seen as good practice (Cutcliffe et al., 2015), offering a model of care that packages good nursing practice that is welcoming, person centred, least restrictive and uses respectful language. Interventions can also be guided by service user recommendations (Kennedy et al., 2019). It supports the purpose of inpatient care as a sanctuary; a safe and empathetic place to recover (Knauf et al., 2023, 2024). Building upon this foundation, tangata whai ora are, perhaps, more likely to participate in ward functioning, approach staff for early intervention or support and better respond to, now familiar, staff in times of crisis. This would all work towards achieving a least restrictive service.

Examining the complexity in practice change initiatives, a study on the recognition of signs of clinical deterioration reveals additional layers of challenges when implementing change, even for a potentially lifesaving practice (Braithwaite et al., 2018). Braithwaite et al. (2018) explain that given that healthcare is a complex adaptive system, implementing evidence into routine practice using a step-by-step model is not feasible. Complexity science helps us to recognise that systems are dynamic and connected to social practices (Braithwaite et al., 2018). It teaches us that we must consider many factors in any change process and accept that unpredictability and uncertainty are normal (Braithwaite et al., 2018). Key lessons from Braithwaite et al. (2018) include the understanding that change can be encouraged in various ways, but it requires: a trigger such as legislation or widespread stakeholder agreement; essential feedback to sustain change momentum; recognition that change processes often take longer than initially planned; and the adoption of a systems-informed, complexity approach that considers existing networks and characteristics. Like the simple interventions in the Safewards implementation, the 'simple' interventions of the rapid response system in New South Wales' Between the Flags program demonstrated that successful

implementation required an understanding of the complex system (Braithwaite et al., 2018). This rapid response system is a bottom-up initiative, arising from clinicians recognising a deterioration in patient condition that, gone undetected, is difficult to reverse (Braithwaite et al., 2018). This has parallels to mental health staff practice: recognising a service user's early warning signs of mental state deterioration or distress; preventing flash points; and reducing practices of conflict and containment.

Participatory action research

Supporting change management, Participatory Action Research (PAR) is collaborative, adaptable, and responsive, allowing plans to evolve as needed (Cornish et al., 2023). Unlike external observation, the researcher drives the development process within PAR (Bradbury, 2015). This study utilised PAR as its theoretical framework, actively involving stakeholders at each research phase and leveraging the expertise of the researcher, service users and staff to drive change (Cornish et al., 2023). The researcher's dual role within the service worked to bridge research and practice (Moreno-Poyato et al., 2023). By being engaged in everyday practice, the lead researcher facilitated the human connection necessary for PAR, working to increase feedback collection and problem-solving through their existing relationships (Keahey, 2021). PAR was particularly well-suited to this study's person-centred framework (Ryan, 2022). PAR could contribute to future research by enhancing the design, implementation and sustainability of Safewards interventions by actively involving and empowering stakeholders, facilitating real-time problem-solving and ensuring that interventions are contextually adapted and practically relevant.

6.5.2 Improving inpatient care

Safewards is one of a number of initiatives aimed at improving inpatient care. Quality improvement initiatives include RTC, seclusion elimination, Six Core Strategies and sensory modulation. It is worth noting as a contextual variable that these pre-existing initiatives may have influenced the Safewards implementation in the current study. While it is not possible to know which intervention was the most successful in reducing restraint, simply "shining a light" on restrictive interventions could have generated an important shift in practice (Riding, 2016, p. 182). This phenomenon exemplifies the Hawthorne effect (Purssell et al., 2020). Given the overall positive trends noted in the Safewards data, it is not surprising that other initiatives also showed positive change. There is an expectation that there would be some degree of synergy between initiatives that have something in common. The trauma-informed care approach recommended by Isobel et al. (2021) made some similar recommendations to those in the Safewards literature, although Isobel's study reported a

different approach. While different, it is worth noting that trauma-informed care models, and possibly others, including the Tidal Model, have similar aims to Safewards. Service users and carers within the study of Isobel et al. (2021), reported that trauma-informed care needs mental health staff to: understand trauma better; increase chances to work together in care; increase efforts to build trust and safety; provide different care options; and deliver consistent, ongoing care.

Similarly, the Tidal Model from Barker (2001), is a mental health recovery approach that focuses on personal stories and empowerment. It emphasises: understanding individual experiences; holistic care; collaboration with families; achieving small goals; and treating people with respect and dignity (Barker, 2001). Peer support, encompassing service users' need to connect, desire to enhance the unit experience for others and sense of solidarity (Cooper et al., 2023), aligns with the core aims of some Safewards interventions. Peer support occurs naturally, and in busy, under-resourced services, peer support can help service users meet their needs, such as connection and talking therapy, in the absence of staff (Cooper et al., 2023). Within Mutual Help Meetings, it is identified how service users can support one another. By applying peer support strategies, such as Mutual Help Meetings, staff are recognising and fostering these interactions, thereby reducing stigma and acknowledging the capacity for kindness among service users, even during acute illness (Cooper et al., 2023).

6.6 Additional literature

After the time period of the original literature review, there were further Safewards implementation studies and literature review publications. Mullen et al.'s (2022) integrative review was published after the search period and although it was considered for inclusion, its methods and findings closely aligned with those already presented in chapter two. In addition to this literature review, Björkdahl et al. (2024) published a qualitative systematic review on staff experiences of barriers and enablers to the implementation of Safewards, from the perspective of implementation science and the Integrated-Promoting Action on Research Implementation in Health Services framework; with findings reflecting those in study one, chapter five. Most data were represented under the headings: local-level formal and informal leadership support; innovation degree of fit with existing practice and values; and recipients' values and beliefs. Ward-Stockham et al. (2024) conducted a scoping review, to: map implementation approaches; characterise the outcomes measured used; and identify the facilitators and barriers to Safewards training and implementation. In a key study on adaptations, Maguire et al. (2022) published literature on the developed Safewards Secure model for forensic mental health services in Australia. Safewards Secure includes key influences and flashpoints unique to forensic mental health settings, with some consideration for implementation

of interventions. In England, Kernaghan et al. (2023) implemented both Safewards and safety crosses to reduce violence and aggression in one male acute mental health unit over a four-month period; data were collected with electronic incident reports. While violence and aggression decreased 20% and ward safety improved, these results may be attributed to common cause variation rather than the quality improvement interventions. Di Napoli et al. (2024) also had a dual implementation of Safewards, implementing it alongside Prolonged Relational Interventions on a no-restraint adult psychiatric ward; data collection is currently ongoing for this retrospective study. Simpson et al. (2024) evaluated if Safewards could be successfully implemented on 20 children and young people's wards in England, using the organisational fidelity measure, surveys and interviews. While 12 wards implemented at least five Safewards interventions, only two implemented all 10. Kole (2024), on one inpatient behavioural health unit in the United Sates, implemented just three of the six domains of the Safewards model: Regulatory Framework; Patient Community; and Physical Environment. Recent Safewards publications occurred outside of mental health settings, including Australian residential aged care (Dawson et al. 2024) and Australian surgical/medical wards (Luck et al. 2024; Yap et al. 2024). Lastly, Simpson and Brennan (2024) reflected on 10 years of Safewards: the creation of the model; literature reviews; developments and implementation internationally; and the continued neglect of acute patient wards in research.

6.7 Future directions

This study shows that, consistent with previous reports, Safewards produces changes in key outcomes and is therefore worth pursuing. The introduction of the adapted Safewards model was associated with: reduced conflict; increased patient cohesion; and improved the sense of safety perceived from staff and tangata whai ora. Beyond the statistics, staff focus groups reported a positive change to the ward culture. What Safewards offers is beyond the Six Core Strategies, packing together a model of care for mental health staff to prioritise therapeutic engagement, person-centred care and least restrictive practice. Safewards motivates staff to embed good nursing practice, evident in Wangel et al.'s (2024) systematic review, into their daily care. Reflecting the priorities of its time, Six Core Strategies (Te Pou 2020b) proved to be an effective innovation when the focus was solely on seclusion reduction. Seclusion is just one of a number conflict and containment measures, and should not be addressed in isolation. By addressing all conflict and containment measures collectively, rather than focusing on seclusion alone, a more cohesive and effective strategy for enhancing care can be created, as Safewards presents. Literature on change management shows that change is difficult, but essential, for practice improvement. Innovations in providing service is required so that care continues to be contemporary and evidence-based.

Safewards was first reported in 2015, and inevitably the model will continue to develop as mental health understanding changes and in different practice and cultural contexts. It is likely that future Safewards mental health research will follow several key directions. Research has already begun to expand and adapt the original Safewards model. Future service users' recommendations were reported by (Kennedy et al., 2019). Research has begun to focus on expanding Safewards interventions to different settings beyond inpatient psychiatric units, including: forensic settings (Maguire et al., 2022); emergency departments (Daniel et al., 2022); medical/surgical care wards (Luck et al. 20204; Yap et al., 2024); and residential aged care (Dawson et al., 2024). There is a gap in research with Safewards implementation in community mental health and older adult care. Future research should aim to assess the long-term impact of Safewards interventions, including longitudinal studies, on service user outcomes, staff well-being and ward atmosphere. This research has already recommended cultural adaptation to the New Zealand context, while maintaining Safewards' core principles. Like most service planning, investigating the integration of technology to support the implementation and monitoring of Safewards interventions could enhance accessibility and provide real-time data. Future studies should explore ways to increase family involvement in Safewards interventions, due to the important role of family in creating and maintaining a safe and therapeutic environment. The economics of Safewards has not been studied; future studies should include cost-effectiveness analysis. While Safewards aligns with Six Core Strategies (Knauf et al., 2023), it is not yet included in policy for mental health services in New Zealand. New Zealand service providers could incorporate Safewards principles into standard mental health care practices at local or national levels. Future international studies may consider designing and evaluating adaptations tailored to varying length of stay within mental health settings. There is an opportunity for research to explore the most effective order of introducing interventions. Notably, the limited representation of service user voices in previous publications underscores an important gap that needs addressing. If the Safewards model can continue to evolve, it could continue to make contributions to improving mental health care internationally.

6.8 Limitations

The COVID-19 pandemic had significant implications for health care research across various settings (Nomali et al., 2023), and this study was not exempt. As case numbers increased in the study setting at different periods of time, for staff and service users, there was a shift in focus, prioritising the COVID-19 management and basic service operations. When cases increased, this caused hesitancy of congregating, including Mutual Help Meeting, and sharing of items, including those used for sensory modulation. There were also higher numbers of staff absences during this

time. As the study started in 2022, New Zealand was adapting to the pandemic and eventually practices prioritised 'business as usual'.

Ward acuity was always going to be a limitation on an acute inpatient mental health unit, but it does not mean that research should not occur. Staff were sometimes hesitant to group tangata whai ora together for Mutual Help Meeting if personalities were viewed incompatible. There was also a concern of vulnerable tangata whai ora oversharing in Mutual Help Meetings. It is likely that Safewards interventions reach limitations when dealing with tangata whai ora experiencing methamphetamine-induced psychosis, as engaging effectively with tangata whai ora experiencing this acute condition can be challenging. In these situations, selectively applying some interventions that have been reduced down to their core elements may be helpful in these situations, such as Māori greeting Māori on arrival without too much stimulus; giving time, open space and gentle reassurance as required; and providing sensory items or furniture that support relaxation.

There were limitations to the available Safewards evaluation tools. The fidelity checklist was a check of visual indictors of interventions, so not all intervention fidelity could be evaluated with this tool. As most of the visual displays were displayed behind windows, their protection meant that once established, there wasn't much variation. The fidelity checklist was, therefore, not a detailed indicator of fidelity for this service. Regarding the PCC tool, there was also a subjective element, where scoring was likely variable between the evaluators. A further limitation was that within the German-translated EssenCES form, some staff disagreed with the language of the questions and showed hesitancy to complete future EssenCES forms. For example, "even the weakest patient finds support from his/her fellow patients" and "some patients are so excitable that one deals very cautiously with them".

As previously mentioned, Safewards is one initiative aimed at reducing conflict and containment. The service was already prioritising seclusion reduction, with Six Core Strategies and RTC being implemented; though it cannot be said to what extent these two initiatives were adhered to. Due to the potential confounding effect of other concurrent initiatives, the observed effect on conflict and containment rates and ward atmosphere during the study period cannot be attributed solely to the Safewards intervention.

Engagement from kaitakawaenga, reduced as the study progressed. It can only be hypothesised why this occurred but this service was likely be impacted by nationwide staff shortages. As well as

this, the implementation period crossed over with the development of a culturally led model for the new service became a priority for the limited number of cultural advisors. This change included the planning of a new hospital, planned to open in 2026. Some of the findings of the Safewards study could inform this new model, for example the emphasis on whakawhanaungatanga. Due to the findings of this study, it is recommended that Safewards is introduced in the new service. There is currently no report of Safewards being built into the design of new services .

Tangata whai ora participation was limited. Tangata whai ora attendance at focus groups was lower than anticipated, survey completion rates from this group were low, too. Tangata whai ora completion of EssenCES surveys meant that a number needed discarding due to being incomplete or ticking the same, or all, values for all questions. Staff had difficulty comprehending the questions so it can be predicted that tangata whai ora did too. The literacy rates of tangata whai ora was not evaluated. For future research, simplifying the research process may support tangata whai ora engagement. Consent forms, information sheets, surveys and the formality of the research process likely presented as too much of a burden to some eligible participants. These formats used jargon and would be inaccessible language for some. Participation options were inflexible, being limited to a time and space, that may not have suited the current mental state of tangata whai ora. Seeing the visible relaxation of tangata whai ora in the presence of kaitakawaenga, future studies should be centred around this relationship, and successfully invite whānau into an open and collaborative space for design and feedback. The impact of kaitakawaenga on creating connection and supporting least restrictive care within acute adult inpatient mental health units should not be underestimated.

Staff turnover was another limitation for the study. While staff employment numbers were mostly maintained, there was a high churn during the study period. The charge nurse who was a key driver of Safewards resigned just before project implementation. Similarly, a 'champion' for the study within upper management resigned before implementation. The kaitakawaenga was new to their position at the beginning of implementation and resigned before the final focus groups. This resignation in particular affected continuity. The limited success of staff champion roles was a further limitation, placing more responsibility on the ACNMs and researcher.

Co-design in inpatient mental health units is inherently complex due to the dynamic and transient nature of the tangata whai ora population. This resulted in no single, stable working group to engage with over the study period. This changing population complicates the establishment of

consistent collaboration and trust, critical elements of co-design. Co-design is not a singular method but a flexible approach that encompasses various ways of working, each requiring careful adaptation to the unique needs and constraints of the setting. While it was more straightforward to apply co-design principles with staff, who were more consistently present and could engage over extended periods, involving tangata whai ora presented additional challenges, such as fluctuating participation, acuity and diverse needs. Research in inpatient mental health units often faces practical and ethical limitations, including the difficulty of achieving tangata whai ora input and the challenges of evaluating outcomes in a complex environment. These factors highlight the need for adaptive and inclusive practices to effectively implement co-design in these settings.

Limitations also exist from the restriction of undertaking doctoral study, including: a limited timeframe, with this study needing to be completed within a three year period to meet scholarship conditions; limited scope in order to meet a three year deadline while also being able to manage the workload as a single researcher with two supervisors; and the lack of funding that further reduces what is able to be achieved.

6.9 Research reflections

Undertaking this thesis with a focus on change management and least restrictive care, in an inpatient mental health unit, especially when using PAR, has impacted me both personally and professionally. Engaging with service users, taking a person-centred approach and advocating for service users has increased my empathy for individuals facing mental health challenges. My communication with service users improved, I shared more about myself, listened more and prioritised engagement with them, even in informal ways. This experience has shaped my identity as an advocate for patient-centred care, emphasising the importance of dignity, autonomy and respect in mental health treatment.

Seeing the benefits of least restrictive practices firsthand strengthened my commitment to advocating for, and implementing, Safewards interventions. Understanding the systemic barriers and facilitators to implementing least restrictive practice gave me a more informed perspective on how to effect change within this complex environment. Whilst working to reduce containment use within, my own practice, I had to educate, motivate and reassure my colleagues of their safety while managing escalating situations in the least restrictive way. In these times, I role modelled patience, kindness and communication.

Working within PAR and being a role model for my colleagues, in the integration of my study and nursing practice, has enhanced my self-awareness as I reflected on my own beliefs, biases and practices. There were mostly positive aspects of working within PAR, but also negatives. The negatives including dealing with resistance to change, adapting to feedback and managing setbacks. Setbacks included COVID-19, staff shortages, staff turnover, high acuity, over occupancy and kaitakawaenga accessibility. Despite setbacks, PAR required that I remain committed to my belief in Safewards. This strengthened my resilience and adaptability.

By leading a change management initiative, this study has developed my ability to guide teams, foster collaboration and manage large projects. Deepening my understanding of change management theories and practices, particularly in the context of mental health care, has given me practical skills for the future. Working closely with stakeholders, including services users, staff and MDT, has broadened my understanding of the complexities within mental health care systems. I have always been a team player, but engaging in PAR, which emphasizes collaboration and co-creation, has shaped me into a change agent who prioritises collaborative, bottom-up approaches to improve care and outcomes.

Naturally, my research skills have advanced throughout this process. The process of designing, implementing, and evaluating Safewards has improved my knowledge and skills, including MMR, data analysis and the application of theory to practice. Educating staff, hosting focus groups, networking with managers, feeding back to a panel, improved my communication and organisation skills. I was grateful for my position as a practitioner and researcher within PAR and have developed a dual identity that values evidence-based practice and practical application, bridging the gap between theory and practice.

6.9.1 Implications for practice

This study provides practical, evidence-based recommendations for the future design, implementation and evaluation of the Safewards model. It summarises the barriers and enablers of implementing Safewards from the literature, presenting key learnings from others' informed recommendations. Using co-design principles, the current study makes recommendations for the design and implementation of Safewards, including what order to phase the interventions in. It presents a culturally adapted Safewards model, whose adaptation process is interchangeable internationally, with consideration for the socio-cultural context. Applying change management and PAR strategies, it suggests methods of overcoming resistance to change. Evaluating practice is important and this study has presented in-depth methods of Safewards evaluation. In addition

to the informative literature, www.safewards.net guides, Safewards Victoria resources, and a collaborative online community, this study has evolved into an extended guide to using the Safewards model as one innovation to help reduce conflict and containment within mental health care services.

6.10 Conclusion

Inpatient settings present complex challenges for service users and professionals and require a continuing focus of evaluation and change. Safewards is one model of care that attempts to address issues of conflict and containment by bringing together several approaches, presented as interventions. These interventions are centred on: therapeutic relationships; person-centeredness; teamwork; and least restrictive care. Other interventions include seclusion reduction, Releasing Time to care and Sensory Modulation. Originally developed in 2015, Safewards needs to continue to adapt to stay contemporary and evidence based. Through co-design and PAR, this study has adapted and implemented the Safewards model to better suit the socio-cultural context within a Te Whatu Ora Waikato acute adult inpatient mental health unit. This research suggests it is possible to make changes with inpatient settings but there is a need for ongoing focus on improving the quality of inpatient settings. Change management is one process that can reduce barriers to change. The findings of this study indicate that the New Zealand Safewards model may be both feasible and effective. Within the study setting, the implementation of the Safewards interventions was associated with: reduced conflict; increased patient cohesion; and improved the sense of safety perceived from staff and tangata whai ora. Safewards has shown, again, that it may contribute to creating safe wards.

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Appendix A: University of Waikato Ethics Committee approval

The University of Waikato
Private Bag 3105
Gate 1, Knighton Road
Hamilton, New Zealand

Human Research Ethics Committee
Roger Moltzen
Telephone: +64021658119
Email:humanethics@waikato.ac.nz

THE UNIVERSITY OF WAIKATO
Te Whare Wānanga o Waikato

1 February 2022

Sarah Knauf
Te Huataki Waiora School of Health
DHECS
By email: st436@students.waikato.ac.nz

Kia ora Sarah

HREC(Health)2021#97: Reducing conflict and containment in an adult acute inpatient mental health service

Thank you for your responses to the Committee feedback.

We are now pleased to provide formal approval for your project.

Please contact the Committee by email (humanethics@waikato.ac.nz) if you wish to make changes to your project as it unfolds, quoting your application number with your future correspondence. Any minor changes or additions to the approved research activities can be handled outside the monthly application cycle.

We wish you all the best with your research.

Regards,

Emeritus Professor Roger Moltzen MNZM
Chairperson
University of Waikato Human Research Ethics Committee

Appendix B: Te Puna Oranga Māori Research Review Committee Endorsement

Te Puna Oranga Māori Research Review Committee

3 December 2021

Re: Māori Consultation for 'Adapting Safewards to a New Zealand context to reduce conflict and containment within an inpatient mental health unit

Name of Applicant: Sarah Knauf

Tēnā Koe Sarah,

Thank you for submitting the above research proposal to the Waikato DHB Te Puna Oranga Māori Research Review Committee for Māori consultation. The research application has been reviewed in order to support and prompt the researcher to think about how this research will improve health outcomes and eliminate inequity for Māori living within the Waikato DHB region.

1. The Committee acknowledges the researchers for collecting ethnicity data as part of a demographic background of the participant to improve data collection for Māori in order to improve Māori health outcomes and reduce inequity for Māori.

2. The Committee encourages the research team to actively recruit equal numbers of Māori and Non-Māori. Any Research that involves Māori participation would require sufficient face to face time for fully informed consent to occur. Inclusion of the whānau of the Māori participant should be encouraged to support the continued engagement of the Maori participant in the research process.

3. The Committee encourages all research that involves participation of individuals, especially Māori participants to fully inform them regarding the detail of tissue collection. One consent form for the current use of Tissue. One consent form for the future use of tissue (this should be clear to the participant).

4. Studies using retrospective data must respect Maori data as outlined in Te Mana Raraunga: ***5.1 Respect***. *The collection, use and interpretation of data shall uphold the dignity of Māori communities, groups and individuals. Data analysis that stigmatises or blames Māori can result in collective and individual harm and should be actively avoided.*

   Reference: Te Mana Raraunga: Principles of Māori Data Sovereignty. Brief #1 | October 2018. https://static1.squarespace.com/static/58e9b10f9de4bb8d1fb5ebbc/t/5bda208b4ae237cd89ee16e9/1541021836126/TMR+Ma%CC%84ori+Data+Sovereignty+Principles+Oct+2018.pdf (Accessed August 2019)

5. If cultural issues arise for the Māori participant during any research, they will inform the research team during the study that an issue has occurred. Cultural issues may not be obvious to the participant or the researcher prior to commencement of the research.

6. The Committee encourages the research team to continue to consult with Te Puna Oranga, Māori Health service at any time, should they have any further queries.

7. Feedback regarding this research is appreciated and can be shared back to the Kaunihera Kaumatua via Te Puna Oranga Māori Health Service

The Committee endorses this research proposal with the consideration of the above cultural recommendations where appropriate and requests the researcher to collect ethnicity data for all study participants seen at Waikato DHB for our own internal records.

Dr Nina Scott
Te Puna Oranga-Maori Health Service

Appendix C: Te Whatu Ora Waikato project registration approval phase one

Register your Research

Waikato District Health Board

It is a requirement that all research and audit conducted within Waikato DHB be registered with the Research Office. By registering your project early on, even when it is still at the concept stage, we can assist you with advice and guidance relating to design, contracts, funding, ethics approval and much more. Once you have completed and submitted the registration form (below) you will receive copies of the relevant Waikato DHB Approval of Research Forms. These need to be circulated for the appropriate signatures and returned to us. You will receive a fully signed copy for your project file.
Complete this form and email it to research@waikatodhb.health.nz to commence your registration to us. We endeavour to respond within 2-3 working days. If you have not had a response and you have time constraints on your project please contact us by phone on **(07) 8398899 ext 23589**.

RD021106	**Adapting Safewards to a New Zealand context to reduce conflict and containment within an inpatient mental health unit – Phase 1**

Project Personnel

(PI)External PI name:	Dr Anthony O'Brien (Supervisor 1)
External PI organisation:	University of Waikato
Mobile phone number:	027 277 0269
Email address:	anthony.obrien@waikato.ac.nz

(PI)External PI name:	Dr Allison Kirkman (Supervisor 2)
External PI organisation:	University of Waikato
Mobile phone number:	021 322 905
Email address:	allison.kirkman@waikato.ac.nz

Waikato DHB PI name:	Mrs Sarah Knauf (ID#32795)
Mobile phone number:	021 102 0063
Email address:	st436@students.waikato.ac.nz

All Waikato DHB Co-Investigators:	.....include Title [Dr, Prof, Ms etc]
Research Nurse/Co-ordinator:	
Other WDHB contacts:	Carole Kennedy

Nominate the primary contact person for this research:	Sarah Knauf
Mobile phone number:	021 102 0063
Email address:	st436@students.waikato.ac.nz

Host Waikato DHB department	Mental Health & Addiction Services

Register your Research

Waikato District Health Board

Project Details

Type of Project	☐Observational: qualitative/epidemiological ☐Clinical/Interventional (drug/device/other intervention) ☐Data Registry ☒Audit or evaluation ☒Other *(Case study, cohort study, case-control study, cross-sectional study, descriptive study, anonymous survey)*. Co-design. Mixed methods. Evaluation.
Is your Project	☐Pharmaceutical sponsored ☐Investigator Led ☒For Qualification (see next question) ☐Other
Is this project related to Professional Development or Academic Study	☐Allied Health / CASP / Nursing Portfolio ☐Medical Council registration or College requirement ☒Tertiary Study, eg ~~PG Cert/Dip/Masters/~~Doctorate ☐None of the above.
Is this a multi-centre project?	☒Not a multi-centre project ☐Multi-centre, Waikato DHB NZ-led ☐Multi-centre, Waikato DHB sub-site ☐Waikato DHB as a referral or resource site only
Data/Information Source	☒Prospective (recruiting patients, presumably consenting) ☒Retrospective (existing data, potentially not consenting)
Will non-Waikato DHB employees access patients, identifiable patient information, staff or premises for this study?	☒Yes – *confidentiality agreements may be required* ☐No
Will you expect to publish your results	☒Yes ☐No
Financial/resource Considerations:	• *Please outline any Waikato DHB resources utilised for this project, including staff time, extra clinics, extra procedures, facilities, equipment and /or consumables) and how that will be covered; or provide a memo from your financial accountant* • *Please clarify which resources listed are standard of care and which are additional to normal standard of care.* Please see attached business model.
Project start date:	01/06/2021

RD021106 SafeWards MH Inpatient (Knauf)

Register your Research

Waikato District Health Board

Project end date:	01/06/2023
Proposed sample size at Waikato DHB:	Design model: Phase one **Staff focus groups** (three groups of ten) inviting registered and unregistered nurses, activity facilitators, managers and members of the treating team (psychiatrist, registrar, house officer, social worker) on ward 36. Semi-structured. Will contribute to the model design and stage two implementation. Held by consumer advisor. These will be held in a meeting within the mental health unit but off the ward to reduce interruptions and support open communication. **Māori focus group** will be one hui hosted by kaitakawaenga to support a safe space for Māori views. Tangata whai ora, whanau and Māori staff will be invited. Semi-structured. Will contribute to the model design and stage two implementation. At least ten participants. This will be held in a meeting within the mental health unit but off the ward to reduce interruptions, support open communication and facilitate the attendance of inpatient tangata whai ora.
Provide a brief plain-English summary of your study including aim and method	This study aims to design a Safewards model to fit the New Zealand context and implement it at the Waikato District Health Board (DHB) acute adult inpatient mental health unit, ward 36. This study will explore tangata whai ora and staff perspective of the developed Safewards model and identify if rates of conflict and containment reduce after a period of implementation in an acute adult inpatient mental health unit at Waikato Hospital. More specifically, the research seeks to address the following questions: 1. What would a New Zealand Safewards model require? 2. What are the perspectives of inpatient tangata whai ora and staff on their experience of the developed New Zealand Safewards model? 3. Do conflict and containment rates reduce after implementation of the New Zealand Safewards model? **Method:** Co-designed mixed-methods evaluation research over three years. Proposed three phase design: 1. Pre-implementation: design New Zealand Safewards model, staff training, consultation, stakeholder engagement. 2. Implementation: Applying to New Zealand Safewards model. 3. Evaluation: Data analysis and report writing. Stage two and three concept designs in attached design plan. This application if for phase one.
Might this study contribute to reducing inequities in health outcomes between Māori and other New Zealanders?	• The major focus of this proposal is improving the quality of care provided within inpatient mental health units by providing a framework to guide care. The model outlined in this proposal will support least restrictive practices, guide evidence-based care and be culturally safe. • Both tangata whai ora and staff within this service are expected to be positively impacted by this proposed model. This model would support improved care standards for a vulnerable population. It also hopes to reduce health inequalities between Maori and non-Maori.
Co-design: Have stakeholders been engaged in the design or development of this project?	*Stakeholders can be institutions, communities or individuals.* *Conversations with Māori stakeholders are appropriate for researchers working alongside Māori participants* ☒Yes

RD021106 SafeWards MH Inpatient (Knauf)

Register your Research

Waikato District Health Board

	☐No ☐Not applicable	
Will your study require input from Clinical Support Services? (above normal standard of care) (select all applicable)	☐Laboratory ☐Radiology ☐Clinical Coding / Business Analyst	☐Pharmacy ☐Medical Records ☒None
Will your study involve the use of equipment, device or product that is not currently approved for purchase/ use by the DHB?	☐Yes ☒No	
Enter a list of keywords:	Safeward* 'Safewards model'	

Cultural Considerations

% of Māori with condition of interest	• Māori are almost 50% more likely than non-Maori to experience mental distress but are 30% more likely than other ethnic groups to be undiagnosed (Government Inquiry into Mental Health and Addiction, 2018) • Maori experience higher rates of suicide and addictions (Government Inquiry into Mental Health and Addiction, 2018) • Health outcomes for Māori are poorer (Government Inquiry into Mental Health and Addiction, 2018) • Within inpatient units, Māori are more likely to be admitted, readmitted post-discharge, secluded, placed under compulsorily status of the Mental Health act and in forensic services (Government Inquiry into Mental Health and Addiction, 2018)
What are your plans for recruiting Māori?	*Specifically, if this is an area where we may be able to reduce inequity, how will you encourage Māori participants to take part?* There is a need to capture Māori perspective due to overrepresentation of Māori in the service. Kaitakawaenga are included in the study panel, design process and involved in recruiting and hosting Māori focus group. Whanau are welcome and encouraged to attend Māori focus group. A small koha is offered to participants. Ethnicity data and iwi will be collected through a tick box on the consent forms.
Is ethnicity a variable in your study? (Māori c.f. non-Māori)	*Researchers are asked to use the NZ Census question to collect ethnicity and to include ethnicity statistics in their research report to the DHB on completion.* ☒Yes ☐No
Will your study involve collecting tissue samples?	*Includes blood, urine and tissue samples* ☐Yes ☒No

Register your Research

Waikato District Health Board

Ethical Considerations / Privacy / Data Management

What benefits do you expect the study to provide?	• Reduce incidences of: Conflict (assault, aggression, self-harm, suicide, absconding, substance use, medication refusal). Containment (seclusion, restraint, PRN medication, coerced IMI, increased levels of observation) within mental health and addiction services. • Contribute to nursing practice improvement. Create a more safe and therapeutic hospital environment. Inform future nursing models of care. Create a culturally safe model of care. Support least restrictive and evidence-based care.
What risks do you expect the study to pose and how will you minimise expected risk?	• Tangata whai ora reflecting on their inpatient experiences and care may trigger an emotional discomfort. For staff, discussing conflict and containment may trigger memories of past experiences, including assaults, which may trigger an emotional response. • Researchers to identify that questions may trigger a response due to past trauma. Provide a safe and private environment for participants. Participants can leave the focus group at any time if there is emotional discomfort. Escalate concerns immediately to a pre-delegated whanau member. • Participants will be aware of any potential risks and that they can decline to participate or withdraw their consent at any time. Both written and verbal consent will be sought prior to participation, including consent to be audio recorded when taking part in the focus group.
Briefly explain how your study will contribute to new knowledge and improve health outcomes?	• The expected health outcomes and gain are reducing conflict and containment within inpatient mental health units. Of particular note is the reduction of seclusion, which aligns with New Zealand's nationwide aspiration to be seclusion-free. We hope to see this reduction following a 12-month implementation of the Safewards model. • Safewards has been used with effect overseas. Of particular relevance are the United Kington and Victoria, Australia studies. Overseas published literature has shown that Safewards has been used with effect in mental health settings. • There is currently no published literature on Safewards in New Zealand. Waikato DHB would be among the very few DHBs implementing Safewards in New Zealand and would be the first to adapt the model to the New Zealand context.
How will Waikato DHB patients' clinical information be accessed?	☒Paper records already on the ward/unit (current patients) ☐Paper records requested via Medical Records department ☒Electronic data extract already within the department ☐Electronic data extract requested via Business Information (list of NHIs or full data set) ☐Other ☐No patient clinical information will be accessed.
Is the information identifiable to you, the researcher?	☐Yes ☒No

RD021106 SafeWards MH Inpatient (Knauf)

Register your Research

Waikato District Health Board

If identifiable, will consent be sought?	☒Yes ☐No
Will identifiable information be shared with an outside organisation?	☐Yes – who? ☒No
Where will information generated by this research project be stored?	☒DHB servers/computers (including other DHBs) in NZ ☒University servers/computers in NZ ☐Overseas University services/computers ☐Other organisations / the cloud / overseas
What will happen to the data after the study?	*(Will it be only used for this study; used in a further study; added to a registry)* • All electronic data will be stored securely on a password-protected file and computer for a minimum of 5 years following research completion and only accessed by the researchers. • Digital deletion of electronic files and shredding of non-digital documents after five years.
Data Security : Explain all measures taken to preserve the confidentiality of the patient information.	*Describe how any collected data will be kept safe, who will have access to the data, how long he data will be stored for and who will be responsible for ensuring policies and ethical standards are met for storage, transfer, retention and destruction of data (paper/electronic files/video/audio).* • Consent forms, voice recordings, transcripts, and any related notes, will remain separated, stored appropriately, and safety discarded, to protect confidentiality. • All electronic data will be stored securely on a password-protected computer and only accessed by the researchers. • No identifiable participant information will be used in the results however, participants may be able to identify themselves from direct quotes used in results. • Staff participants will be asked to reveal their employment position, years' experience, ethnicity and gender. • Identifiable information will be stored securely and only accessible by the researchers. • Working in accordance with University of Waikato protection of confidential documents policy.

Ethics, Regulatory Approval & Funding Details

What type of ethics approval will/has been sought? (delete those not applicable)	☐Health & Disability Ethics Committee (HDEC) review ☒Non-HDEC review (e.g. university ethics committee) ☐No ethics review is required ☐Not sure
Is SCOTT/Other approval being sought?	☐No ☒Yes, please list: Mental Health & Addictions, Te Puna Oranga.
Is this study funded? (select those applicable)	☐Commercial Contract

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Register your Research

	☐Research Grant (HRC, WMRF etc) ☐Collaborative ☐Funded from Waikato Health Trust Funds ☒Non-Funded
If the project involves fund sources external to Waikato DHB	*Please enter name of organisation(s) providing funding*
Will Waikato DHB be a signatory for any funding contract(s)	☐Yes, there will be Waikato DHB contracts for this project ☒No, contracts will not be signed by Waikato DHB
Current status of this project and any other information:	Planning phase. Connecting with key stakeholders. Applying for ethics approval.

Management and Resource Sign-offs

This study does not require HDEC review. Will have University ethics review.

Locality Review – *the undersigned agree to the following statements:*

- The study protocol and methodology are ethical and scientifically sound.
- This researcher has identified that this study does not require Health & Disability Ethics Committee (HDEC) review.
- The local lead investigator is suitably qualified, experienced, registered and indemnified.
- Resources, facilities and staff are available to conduct this study, including access to interpreters if requested.
- Cultural consultations have occurred or will be undertaken as appropriate
- Appropriate confidentiality provisions have been planned for.
- Appropriate arrangements are in place to notify other relevant local health or social care staff about the study, and for making available any extra support that might be required by participants, where relevant.
- Conducting this research will have no adverse effect on the provision of publicly funded healthcare.
- There is a stated intent that the results of the study will be disseminated and where practical and appropriate the findings of the study will be translated into evidence based care.

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Register your Research

Waikato District Health Board

Clinical Support Services Sign-offs

CROSS OUT/ADD SIGN-OFFS APPLICABLE TO THIS PROJECT

SIGNATORIES DECLARATION: We agree that appropriate resources are available in our service to support this project

Clinical Support Service	Name	Signature	Date signed
~~DHB Pharmacy~~	~~Rajan Ragupathy~~ ~~OR Alice Chang~~		
~~DHB Pharmacy~~	~~Marinda van Zyl Green~~ ~~OR Jan Goddard~~		
~~Laboratory~~	~~Kay Stockman~~		
~~Radiology~~	~~Glenn Coltman~~		
~~Medical Records~~	~~Denise Jon~~		

Department/Service Sign-off

Dept/Service /Org	Role	Name	Signature	Date signed

As Nurse Director, by signing this I confirm

- I have discussed the research project and resource implication for this department with the principal investigator and that the Principal Investigator has discussed these resource implications with any affected services / staff members.
- All researchers/students from the department involved in the research project have the skills, training and experience necessary to undertake their role.
- I support the research project being conducted; and confirm there are suitable and adequate facilities and resources for the research project to be conducted at this site.

Mental Health	Nurse Director	Carole Kennedy	

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Register your Research

Waikato District Health Board

As Director / Executive Director, by signing this I confirm:

- All costs incurred by Waikato DHB Unit/Service in regard to the research project are included in an approved research budget (including those costs which will be incurred by contributing units, eg laboratory). For studies involving researcher time only, the researcher has the time to undertake the study.
- Research is not commenced until all required approvals have been obtained.

Mental Health	Director	Vicki Aitken	V Aitken E/Sig 18.10.21	
Hospital & Community	Executive Director	Chris Lowry		
Te Puna Oranga	Māori Research Review Ctte	Nina Scott	*See attached letter*	N/A

Please return to the Research Office (via Sarah Brodnax, Level 2 Hockin) along with required documents as identified in the checklist for final approval.

Office use only:
Quality & Patient Safety, Waikato DHB

It is the responsibility of the Director of Quality & Patient Safety or Chief Medical Officer to ensure that the research approval process has been followed, that required internal and external approvals are evident and that the research project fits within the strategic direction of Waikato DHB.

Signature: **Date:**

Name: **Position:**

RD021106 SafeWards MH Inpatient (Knauf)

Register your Research

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Appendix D: Te Whatu Ora Waikato Project Registration Approval Phase 2 & 3

Register your Research

Waikato District Health Board

It is a requirement that all research and audit conducted within Waikato DHB be registered with the Research Office. By registering your project early on, even when it is still at the concept stage, we can assist you with advice and guidance relating to design, contracts, funding, ethics approval and much more. Once you have completed and submitted the registration form (below) you will receive copies of the relevant Waikato DHB Approval of Research Forms. These need to be circulated for the appropriate signatures and returned to us. You will receive a fully signed copy for your project file. Complete this form and email it to research@waikatodhb.health.nz to commence your registration to us. We endeavour to respond within 2-3 working days. If you have not had a response and you have time constraints on your project please contact us by phone on **(07) 8398899 ext 23589.**

RD022034	**Adapting Safewards to a New Zealand context to reduce conflict and containment within an inpatient mental health unit – *Phase 2 and 3 (Follows on from RD021106)***

Project Personnel

(PI)External PI : **Supervisor 1**	Dr Anthony O'Brien
External PI organisation:	University of Waikato
Mobile phone number:	027 277 0269
Email address:	anthony.obrien@waikato.ac.nz

(PI)External PI : **Supervisor 2**	Dr Allison Kirkman
External PI organisation:	University of Waikato
Mobile phone number:	021 322 905
Email address:	allison.kirkman@waikato.ac.nz

Waikato DHB PI name:	Mrs Sarah Knauf, ID#32795
Mobile phone number:	021 102 0063
Email address:	st436@students.waikato.ac.nz

All Waikato DHB Co-Investigators:	.....include Title [Dr, Prof, Ms etc]
Research Nurse/Co-ordinator:	
Other WDHB contacts:	Rachael Aitchison, MHAS

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Register your Research

Waikato District Health Board

Nominate the primary contact person for this research:	Sarah Knauf
Mobile phone number:	021 102 0063
Email address:	st436@students.waikato.ac.nz
Host Waikato DHB department	Mental Health & Addiction Services

Project Details

Type of Project	☐Observational: qualitative/epidemiological ☐Clinical/Interventional (drug/device/other intervention) ☐Data Registry ☒Audit or evaluation ☒Other *(Case study, cohort study, case-control study, cross-sectional study, descriptive study, anonymous survey).* Co-design. Mixed methods. Evaluation.
Is your Project	☐Pharmaceutical sponsored ☐Investigator Led ☒For Qualification (see next question) ☐Other
Is this project related to Professional Development or Academic Study	☐Allied Health / CASP / Nursing Portfolio ☐Medical Council registration or College requirement ☒Tertiary Study, eg ~~PG Cert/Dip/Masters/~~Doctorate ☐None of the above.
Is this a multi-centre project?	☒Not a multi-centre project ☐Multi-centre, Waikato DHB NZ-led ☐Multi-centre, Waikato DHB sub-site ☐Waikato DHB as a referral or resource site only
Data/Information Source	☒Prospective (recruiting patients, presumably consenting) ☒Retrospective (existing data, potentially not consenting)
Will non-Waikato DHB employees access	☒Yes – *confidentiality agreements may be required*

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Register your Research

Waikato District Health Board

patients, identifiable patient information, staff or premises for this study?	☐No
Will you expect to publish your results	☒Yes ☐No
Financial/resource Considerations:	• *Please outline any Waikato DHB resources utilised for this project, including staff time, extra clinics, extra procedures, facilities, equipment and /or consumables) and how that will be covered; or provide a memo from your financial accountant* • *Please clarify which resources listed are standard of care and which are additional to normal standard of care.* *As in phase one application:* Please see attached business model.
Project start date:	01/06/2021
Project end date:	01/06/2024
Proposed sample size at Waikato DHB:	*Implementation* Phase two: Approximately 30 current ward 36 (acute mental health unit within Henry Rongomau Bennett Centre) staff, consisting of registered and unregistered healthcare workers, managers (charge nurse and associate charge nurses). *Evaluation* Phase three: **Staff focus groups** (three groups of at least 4) inviting registered and unregistered nurses, activity facilitators, managers and members of the treating team (psychiatrist, registrar, house officer, social worker) on ward 36. Semi-structured. Will contribute to the model design and stage two implementation. Held by consumer advisor. These will be held in a meeting within the mental health unit but off the ward to reduce interruptions and support open communication. **Māori focus group** will be one hui hosted by kaitakawaenga to support a safe space for Māori views. Tangata whai ora, whanau and Māori staff will be invited. Semi-structured. Will contribute to the model design and stage two implementation. At least ten participants. This will be held in a meeting within the mental health unit but off the ward to reduce interruptions, support open communication and facilitate the attendance of inpatient tangata whai ora.
	What will participants be doing and how long will each activity take? **Phase Two** • Pre-Safewards implementation: Baseline data on length of stay, staff turnover, restraint, seclusion and sample PRN will be collected. There will be in-service staff training held by the student researcher using the resources from https://www.health.vic.gov.au/practice-and-service-

Register your Research

Waikato District Health Board

	quality/safewards-training-resources (have received consent from Safewards Victoria to use their recourses). Staff who cannot attend the in-service training will complete online education (the same PowerPoint from the in-service training). Safewards Champions will then follow up with train-the-trainer for any staff who need further education and support on interventions. All staff will be a champion of one of ten Safewards interventions and can self-select the interventions based on a sign up form. Staff and tangata whaiora will complete a hard copy baseline survey on the violence prevention climate and ward atmosphere. • During implementation: Two Safewards interventions will be implemented each month over a 12-month implementation period. They will be introduced at monthly staff meetings and supported by champions. A hard-copy Patient-Staff conflict checklist will be completed by the shift lead at the end of each shift. A fidelity checklist will be completed by a third party each month through an establish form. Staff and tangata whaiora will complete hard copy surveys on the violence prevention climate and ward atmosphere. **Phase Three** • Staff will participate in one of three focus groups (maximum 90 minutes). This is hosted by the research student. Safewards will be introduced and the ten interventions discussed. This is a semi-structured focus group. There will be questions and open discussion around what adaptions the model needs. • Tangata whai ora and their whanau will be part of a focus group (maximum 90 minutes). In these focus groups the Safewards model will be introduced by the research student and then Kaitakawaenga will run the rest of the hui. This is a semi-structured focus group. There will be questions and open discussion around what adaptions the model needs. • All focus groups with be audio recorded and later transcribed. Participants are informed of this on the consent form and information sheet.
Provide a brief plain-English summary of your study including aim and method	*As in phase one application:* This study aims to design a Safewards model to fit the New Zealand context and implement it at the Waikato District Health Board (DHB) acute adult inpatient mental health unit, ward 36. This study will explore tangata whai ora and staff perspective of the developed Safewards model and identify if rates of conflict and containment reduce after a period of implementation in an acute adult inpatient mental health unit at Waikato Hospital. More specifically, the research seeks to address the following questions: 1. What would a New Zealand Safewards model require?

Register your Research

Waikato District Health Board

	2. What are the perspectives of inpatient tangata whai ora and staff on their experience of the developed New Zealand Safewards model? 3. Do conflict and containment rates reduce after implementation of the New Zealand Safewards model? **Method:** Co-designed mixed-methods evaluation research over three years. Proposed three phase design: 1. Pre-implementation: design New Zealand Safewards model, staff training, consultation, stakeholder engagement. 2. Implementation: Applying to New Zealand Safewards model. 3. Evaluation: Data analysis and report writing. This application is for phase two and three. Phase one has received endorsement.
Might this study contribute to reducing inequities in health outcomes between Māori and other New Zealanders?	*As in phase one application:* • The major focus of this proposal is improving the quality of care provided within inpatient mental health units by providing a framework to guide care. The model outlined in this proposal will support least restrictive practices, guide evidence-based care and be culturally safe. • Both tangata whai ora and staff within this service are expected to be positively impacted by this proposed model. This model would support improved care standards for a vulnerable population. It also hopes to reduce health inequalities between Maori and non-Maori.
Co-design: Have stakeholders been engaged in the design or development of this project?	*Stakeholders can be institutions, communities or individuals. Conversations with Māori stakeholders are appropriate for researchers working alongside Māori participants* ☒Yes ☐No ☐Not applicable
Will your study require input from Clinical Support Services? (above normal standard of care) (select all applicable)	☐Laboratory ☐Pharmacy ☐Radiology ☐Medical Records ☐Clinical Coding / Business Analyst ☒None
Will your study involve the use of equipment, device or product that is not currently approved for purchase/ use by the DHB?	☐Yes ☒No

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Enter a list of keywords:	Safeward* 'Safewards model'

Cultural Considerations

% of Māori with condition of interest	*As in phase one application:* • Māori are almost 50% more likely than non-Maori to experience mental distress but are 30% more likely than other ethnic groups to be undiagnosed (Government Inquiry into Mental Health and Addiction, 2018) • Maori experience higher rates of suicide and addictions (Government Inquiry into Mental Health and Addiction, 2018) • Health outcomes for Māori are poorer (Government Inquiry into Mental Health and Addiction, 2018) • Within inpatient units, Māori are more likely to be admitted, readmitted post-discharge, secluded, placed under compulsorily status of the Mental Health act and in forensic services (Government Inquiry into Mental Health and Addiction, 2018)
What are your plans for recruiting Māori?	*As in phase one application:* *Specifically, if this is an area where we may be able to reduce inequity, how will you encourage Māori participants to take part?* There is a need to capture Māori perspective due to overrepresentation of Māori in the service. Kaitakawaenga are included in the study panel, design process and involved in recruiting and hosting Māori focus group. Whanau are welcome and encouraged to attend Māori focus group. A small koha is offered to participants. Ethnicity data will be collected through a tick box on the consent forms.
Is ethnicity a variable in your study? (Māori c.f. non-Māori)	*Researchers are asked to use the NZ Census question to collect ethnicity and to include ethnicity statistics in their research report to the DHB on completion.* ☒Yes ☐No
Will your study involve collecting tissue samples?	*Includes blood, urine and tissue samples* ☐Yes ☒No

Ethical Considerations / Privacy / Data Management

What benefits do you expect the study to provide?	*As in phase one application:* • Reduce incidences of: Conflict (assault, aggression, self-harm, suicide, absconding, substance use, medication refusal). Containment (seclusion, restraint, PRN medication, coerced IMI, increased levels of observation) within mental health and addiction services.

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Waikato District Health Board

	• Contribute to nursing practice improvement. Create a more safe and therapeutic hospital environment. Inform future nursing models of care. Create a culturally safe model of care. Support least restrictive and evidence-based care.
What risks do you expect the study to pose and how will you minimise expected risk?	*As in phase one application:* • Tangata whai ora reflecting on their inpatient experiences and care may trigger an emotional discomfort. For staff, discussing conflict and containment may trigger memories of past experiences, including assaults, which may trigger an emotional response. • Researchers to identify that questions may trigger a response due to past trauma. Provide a safe and private environment for participants. Participants can leave the focus group at any time if there is emotional discomfort. Escalate concerns immediately to a pre-delegated whanau member. • Participants will be aware of any potential risks and that they can decline to participate or withdraw their consent at any time. Both written and verbal consent will be sought prior to participation, including consent to be audio recorded when taking part in the focus group.
Briefly explain how your study will contribute to new knowledge and improve health outcomes?	*As in phase one application:* • The expected health outcomes and gain are reducing conflict and containment within inpatient mental health units. Of particular note is the reduction of seclusion, which aligns with New Zealand's nationwide aspiration to be seclusion-free. We hope to see this reduction following a 12-month implementation of the Safewards model. • Safewards has been used with effect overseas. Of particular relevance are the United Kington and Victoria, Australia studies. Overseas published literature has shown that Safewards has been used with effect in mental health settings. • There is currently no published literature on Safewards in New Zealand. Waikato DHB would be among the very few DHBs implementing Safewards in New Zealand and would be the first to adapt the model to the New Zealand context.
How will Waikato DHB patients' clinical information be accessed?	☒Paper records already on the ward/unit (current patients) ☐Paper records requested via Medical Records department ☒Electronic data extract already within the department ☐Electronic data extract requested via Business Information (list of NHIs or full data set) ☐Other ☐No patient clinical information will be accessed.
Is the information identifiable to you, the researcher?	☐Yes ☒No

Register your Research

Waikato District Health Board

If identifiable, will consent be sought?	☒Yes ☐No
Will identifiable information be shared with an outside organisation?	☐Yes – who? ☒No
Where will information generated by this research project be stored?	☒DHB servers/computers (including other DHBs) in NZ ☒University servers/computers in NZ ☐Overseas University services/computers ☐Other organisations / the cloud / overseas
What will happen to the data after the study?	*As in phase one application:* *(Will it be only used for this study; used in a further study; added to a registry)* • All electronic data will be stored securely on a password-protected file and computer for a minimum of 5 years following research completion and only accessed by the researchers. • Digital deletion of electronic files and shredding of non-digital documents after five years.
Data Security : Explain all measures taken to preserve the confidentiality of the patient information.	*As in phase one application:* *Describe how any collected data will be kept safe, who will have access to the data, how long he data will be stored for and who will be responsible for ensuring policies and ethical standards are met for storage, transfer, retention and destruction of data (paper/electronic files/video/audio).* • Consent forms, voice recordings, transcripts, and any related notes, will remain separated, stored appropriately, and safety discarded, to protect confidentiality. • All electronic data will be stored securely on a password-protected computer and only accessed by the researchers. • No identifiable participant information will be used in the results however, participants may be able to identify themselves from direct quotes used in results. • Staff participants will be asked to reveal their employment position, years' experience, ethnicity and gender. • Identifiable information will be stored securely and only accessible by the researchers. • Working in accordance with University of Waikato protection of confidential documents policy.

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Waikato District Health Board

Ethics, Regulatory Approval & Funding Details

What type of ethics approval will/has been sought? (delete those not applicable)	☐Health & Disability Ethics Committee (HDEC) review ☒Non-HDEC review (e.g. university ethics committee) ☐No ethics review is required ☐Not sure
Is SCOTT/Other approval being sought?	☐No ☒Yes, please list: Mental Health & Addictions, Te Puna Oranga.
Is this study funded? (select those applicable)	☐Commercial Contract ☐Research Grant (HRC, WMRF etc) ☐Collaborative ☐Funded from Waikato Health Trust Funds ☒Non-Funded
If the project involves fund sources external to Waikato DHB	*Please enter name of organisation(s) providing funding*
Will Waikato DHB be a signatory for any funding contract(s)	☐Yes, there will be Waikato DHB contracts for this project ☒No, contracts will not be signed by Waikato DHB
Current status of this project and any other information:	Planning phase. Connecting with key stakeholders. Applying for ethics approval.

Management and Resource Sign-offs

This study does not require HDEC review. Will have University Ethics review.

Locality Review – *the undersigned agree to the following statements:*

- The study protocol and methodology are ethical and scientifically sound.
- This researcher has identified that this study does not require Health & Disability Ethics Committee (HDEC) review.
- The local lead investigator is suitably qualified, experienced, registered and indemnified.
- Resources, facilities and staff are available to conduct this study, including access to interpreters if requested.
- Cultural consultations have occurred or will be undertaken as appropriate
- Appropriate confidentiality provisions have been planned for.
- Appropriate arrangements are in place to notify other relevant local health or social care staff about the study, and for making available any extra support that might be required by participants, where relevant.
- Conducting this research will have no adverse effect on the provision of publicly funded healthcare.

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Register your Research

Waikato District Health Board

- There is a stated intent that the results of the study will be disseminated and where practical and appropriate the findings of the study will be translated into evidence based care.

Clinical Support Services Sign-offs

CROSS OUT/ADD SIGN-OFFS APPLICABLE TO THIS PROJECT

SIGNATORIES DECLARATION: We agree that appropriate resources are available in our service to support this project

Clinical Support Service	Name	Signature	Date signed
~~DHB Pharmacy~~	~~Rajan Ragupathy OR Alice Chang~~		
~~DHB Pharmacy~~	~~Marinda van Zyl Green OR Jan Goddard~~		
~~Laboratory~~	~~Kay Stockman~~		
~~Radiology~~	~~Leigh Harvey~~		
~~Medical Records~~	~~Denise Jon~~		

Department/Service Sign-off

Dept/Service/ Org	Role	Name	Signature	Date signed

As Director / Executive Director, by signing this I confirm:

- All costs incurred by Waikato DHB Unit/Service in regard to the research project are included in an approved research budget (including those costs which will be incurred by contributing units, eg laboratory). For studies involving researcher time only, the researcher has the time to undertake the study.
- Research is not commenced until all required approvals have been obtained.

Mental Health & Addictions	Director	Vicki Aitken		20/5/22
Hospital & Community	Executive Director	Chris Lowry		24/5/22

Register your Research

Waikato District Health Board

Te Puna Oranga	Māori Research Review Ctte	Nina Scott	*See attached letter*	N/A

Please return to the Research Office (via Sarah Brodnax, Level 2 Hockin) along with required documents as identified in the checklist for final approval.

Office use only:
Quality & Patient Safety, Waikato DHB

It is the responsibility of the Director of Quality & Patient Safety or Chief Medical Officer to ensure that the research approval process has been followed, that required internal and external approvals are evident and that the research project fits within the strategic direction of Waikato DHB.

Signature: Margaret Fisher **Date:** 3 June 2022

Name: MARGARET FISHER **Position:** CMO

References

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Appendix E: Safewards Copyright

Subject: Copyright for thesis

Date: 2023-05-19 00:44

From: <st436@students.waikato.ac.nz>

To: <info@safewards.net>

To whom it may concern,

I am a Doctoral student at the University of Waikato, and am writing a thesis with publication on the Safewards model for a Health Science PhD Thesis.

A digital copy of this thesis when completed will be made available online via the Research Commons (the University's digital repository).

This is a not-for-profit research repository which makes research from the University available to as wide an audience as possible.

I request permission for the following work to be included in my thesis and published papers:

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I seek non-exclusive license for an indefinite period to include these materials in the print and electronic copies of my thesis and published papers. The materials will be fully and correctly referenced.

If you agree, please sign the form below and return a copy to me.

If you do not agree, or if you do not hold the copyright in this work, please notify me of this.

I _ _____ Alan Simpson_____ agree to grant you a non-exclusive licence for an indefinite period to include the above materials, for which I am the copyright owner, in the print and digital copies of your thesis and published papers.

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Ngā mihi nui,

Sarah Knauf

PhD Student - Safewards

The University of Waikato | Te Huataki Waiora - School of Health

TT Building, Room 7.16A

Appendix F: Co-authorship form article one

THE UNIVERSITY OF WAIKATO
Te Whare Wānanga o Waikato

Co-Authorship Form

Postgraduate Studies Office
Student and Academic Services Division
Wahanga Ratonga Matauranga Akonga
The University of Waikato
Private Bag 3105
Hamilton 3240, New Zealand
Phone +64 7 838 4439
Website: http://www.waikato.ac.nz/sasd/postgraduate/

This form is to accompany the submission of any PhD that contains research reported in published or unpublished co-authored work. **Please include one copy of this form for each co-authored work**. Completed forms should be included in your appendices for all the copies of your thesis submitted for examination and library deposit (including digital deposit).

Please indicate the chapter/section/pages of this thesis that are extracted from a co-authored work and give the title and publication details or details of submission of the co-authored work. Chapter 5. Article 1: An analysis of the barriers and enablers to implementing the Safewards model within inpatient mental health services

Nature of contribution by PhD candidate	Design, data collection, analysis, writing up and completing the final draft.
Extent of contribution by PhD candidate (%)	70%

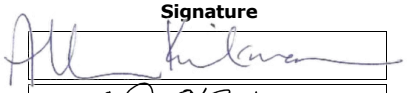
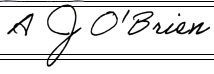
CO-AUTHORS

Name	Nature of Contribution
Anthony O'Brien	20% Review, revisions and contribution to analysis writing up.
Allison Kirkman	10% Review and critique, contribution to writing.
Anthony O'Brien	

Certification by Co-Authors

The undersigned hereby certify that:

- the above statement correctly reflects the nature and extent of the PhD candidate's contribution to this work, and the nature of the contribution of each of the co-authors; and

Name	Signature	Date
Emeritus Professor Allison Kirkman		10 May 2024
Associate Professor Anthony O'Brien		16th May 2024

July 2015

Appendix G: Co-authorship form article two

THE UNIVERSITY OF WAIKATO
Te Whare Wānanga o Waikato

Co-Authorship Form

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Please indicate the chapter/section/pages of this thesis that are extracted from a co-authored work and give the title and publication details or details of submission of the co-authored work. Chapter 5. Article 2: Implementation and Adaptation of the Safewards Model in the New Zealand Context. Perspectives of Tangata Whai Ora and Staff.

Nature of contribution by PhD candidate	Design, data collection, analysis, writing up and completing final draft.
Extent of contribution by PhD candidate (%)	70%

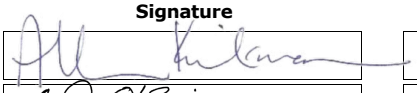
CO-AUTHORS

Name	Nature of Contribution
Anthony O'Brien	20% Review and revisions and contribution to analysis writing up.
Allison Kirkman	10% Rreview and critique, contribution to writing.
Anthony O'Brien	

Certification by Co-Authors

The undersigned hereby certify that:

- the above statement correctly reflects the nature and extent of the PhD candidate's contribution to this work, and the nature of the contribution of each of the co-authors; and

Name	Signature	Date
Emeritus Professor Allison Kirkman		10 May 2024
Associate Professor Anthony O'Brien	A J O'Brien	16th May 2024

July 2015

Appendix H: Co-authorship form article three

THE UNIVERSITY OF WAIKATO
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Co-Authorship Form

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Please indicate the chapter/section/pages of this thesis that are extracted from a co-authored work and give the title and publication details or details of submission of the co-authored work. Chapter 5. Article 3: Implementation of the Safewards Model in the New Zealand context. Perceptions of tāngata whai ora and staff.

Nature of contribution by PhD candidate	Design, data collection, analysis, writing up and completing the final draft
Extent of contribution by PhD candidate (%)	70%

CO-AUTHORS

Name	Nature of Contribution
Anthony O'Brien	20% Rreview and revisions and contribution to analysis writing up.
Allison Kirkman	10% Review and critique, contribution to writing.
Anthony O'Brien	

Certification by Co-Authors

The undersigned hereby certify that:

- the above statement correctly reflects the nature and extent of the PhD candidate's contribution to this work, and the nature of the contribution of each of the co-authors; and

Name	Signature	Date
Emeritus Professor Allison Kirkman		10 May 2024
Associate Professor Anthony O'Brien	A J O'Brien	16th May 2014

July 2015

Appendix I: Phase one focus group poster

RESEARCH COMING SOON:
Reducing conflict and containment in an adult acute inpatient mental health service

THE UNIVERSITY OF WAIKATO
Te Whare Wānanga o Waikato

Who: Staff and tangata whai ora (service users) are invited to participate in a study looking at reducing conflict (such as physical or verbal aggression, self-harm, suicide attempt, absconding, substance misuse and medication refusal) and containment (including administration of sedative medication, coerced intramuscular medication, increased level of observation, restraint and seclusion) on ward 36. **Why**: We want to create a therapeutic environment that is safe for everyone, where care is evidence-based and least restrictive.

Aim: Design a Safewards model to fit the New Zealand context and implement it on ward 36 for 12 months. Explore tangata whai ora and staff perspective of the developed Safewards model. Identify if rates of conflict and containment on ward 36 reduce after implementation.

When: Phase one focus groups for staff and tangata whai ora will occur in June 2022. You'll be invited to participate if you're eligible.

"Nothing about me without me.

Visit safewards.net

Need more information?
Primary Researcher: Anthony O'Brien
anthony.obrien@waikato.ac.nz
Co-investigator: Allison Kirkman
allison.kirkman@waikato.ac.nz
Research student: Sarah Knauf
sarah.knauf@waikatodhb.health.nz

Appendix J: Phase three focus group poster

RESEARCH COMING SOON:
Reducing conflict and containment in an adult acute inpatient mental health service

THE UNIVERSITY OF WAIKATO
Te Whare Wānanga o Waikato

Who: Staff and tangata whai ora (service users) are invited to participate in a study looking at reducing conflict (such as physical or verbal aggression, self-harm, suicide attempt, absconding, substance misuse and medication refusal) and containment (including administration of sedative medication, coerced intramuscular medication, increased level of observation, restraint and seclusion) on ward 36. **Why**: We want to create a therapeutic environment that is safe for everyone, where care is evidence-based and least restrictive.

Aim: Design a Safewards model to fit the New Zealand context and implement it on ward 36 for 12 months. Explore tangata whai ora and staff perspective of the developed Safewards model. Identify if rates of conflict and containment on ward 36 reduce after implementation.

When: Phase three focus groups for staff and tangata whai ora will occur in June 2023. You'll be invited to participate if you're eligible.

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Visit safewards.net

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PhD Student: Sarah Knauf
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Supervisor: Anthony O'Brien
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Supervisor: Allison Kirkman
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Appendix K: Phase one staff email

Research Focus Groups

TE HUATAKI WAIORA SCHOOL OF HEALTH

THE UNIVERSITY OF WAIKATO
Te Whare Wānanga o Waikato

Reducing conflict and containment in an adult acute inpatient mental health service: Phase One

You are invited to participate in a study looking at reducing conflict (such as physical or verbal aggression, self-harm, suicide attempt, absconding, substance misuse and medication refusal) and containment (including administration of sedative medication, coerced intramuscular medication, increased level of observation, restraint and seclusion) on ward 36.

What is the study about and what is the purpose of it?
This study aims to design a Safewards model to fit the New Zealand context and implement it on ward 36. This study will explore tangata whai ora (service user) and staff perspective of the developed Safewards model and identify if rates of conflict and containment reduce after a period of implementation in an acute adult inpatient mental health unit at Waikato Hospital.

Who can take part in this study?
Staff are eligible if they are currently employed on ward 36. Eligible tangata whai ora need to meet the following requirements: (1) Are >18 years of age; (2) Have been admitted to ward 36 within the last six months; (3) Can communicate in English; and (4) Your consultant psychiatrist has indicated that you have the capacity to give informed consent (if inpatient).

Who is organising the research?
The Primary Researcher for this study is Tony O'Brien who will supervise and Sarah Knauf, student researcher, in carrying out the study. The project has received approval from the University of Waikato Human Participants Ethics Committee. The Waikato District Health has given approval.

What happens if you decide to take part?
If you decide to take part you will be contacted to take part in a focus group. The focus groups will be held in a meeting room at the Henry Rongomau Bennett Centre and may take up to ninety minutes. Focus groups will be audio recorded.

What is the time frame of the study?
Focus groups will be held in June 2022. The presentation of the study and findings will be complete in June 2023.

Need more information?
Please do not hesitate to contact the researchers if you have any questions or wish to know more about this study.
Primary Researcher: Associate Professor Anthony O'Brien, Te Huataki Waiora School of Health, The University of Waikato, anthony.obrien@waikato.ac.nz, phone: 027 277 0269
Co-investigator: Professor Allison Kirkman, Te Huataki Waiora School of Health, The University of Waikato, allison.kirkman@waikato.ac.nz, Kirkman, Te Huataki Waiora School of Health, The University of Waikato, allison.kirkman@waikato.ac.nz, phone: 021 322 905
Research student: Sarah Knauf, PhD candidate, Waikato District Health Board, sarah.knauf@waikatodhb.health.nz, phone: 07) 839 8899 ext. 96536.
Te Puna Oranga Māori Health Service: 07) 8343628 research@waikatodhb.health.nz

Appendix L: Phase three staff email

Research Focus Groups

TE HUATAKI WAIORA SCHOOL OF HEALTH

THE UNIVERSITY OF WAIKATO
Te Whare Wānanga o Waikato

Reducing conflict and containment in an adult acute inpatient mental health service: Phase Three

You are invited to participate in a study looking at reducing conflict (such as physical or verbal aggression, self-harm, suicide attempt, absconding, substance misuse and medication refusal) and containment (including administration of sedative medication, coerced intramuscular medication, increased level of observation, restraint and seclusion) on ward 36.

What is the study about and what is the purpose of it?
This study aims to design a Safewards model to fit the New Zealand context and implement it on ward 36. This study will explore tangata whai ora (service user) and staff perspective of the developed Safewards model and identify if rates of conflict and containment reduce after a period of implementation in an acute adult inpatient mental health unit at Waikato Hospital.

Who can take part in this study?
Staff are eligible if they are currently employed on ward 36. Eligible tangata whai ora need to meet the following requirements: (1) Are >18 years of age; (2) Have been admitted to ward 36 within the last six months; and (3) Can communicate in English. The consultant psychiatrist will then indicate if they have the capacity to give informed consent (if inpatient).

Who is organising the research?
The student researcher Sarah Knauf. Tony O'Brien and Allison Kirkman will supervise Sarah in carrying out the study. The project has received approval from the University of Waikato Human Participants Ethics Committee. The Waikato District Health has given approval.

What happens if you decide to take part?
If you decide to take part you will be contacted to take part in a focus group. The focus groups will be held in a meeting room at the Henry Rongomau Bennett Centre and may take up to ninety minutes. Focus groups will be audio recorded.

What is the time frame of the study?
Focus groups will be held in July 2023: **18th at 0730hrs and 19th at 1430hrs HRBC level 3 meeting room.** The presentation of the study and findings will be completed in June 2024.

Need more information?
Please do not hesitate to contact the researchers if you have any questions or wish to know more about this study.
Primary Researcher: Associate Professor Anthony O'Brien, Te Huataki Waiora School of Health, The University of Waikato, anthony.obrien@waikato.ac.nz, phone: 027 277 0269
Co-investigator: Professor Allison Kirkman, Te Huataki Waiora School of Health, The University of Waikato, allison.kirkman@waikato.ac.nz, Kirkman, Te Huataki Waiora School of Health, The University of Waikato, allison.kirkman@waikato.ac.nz, phone: 021 322 905
Research student: Sarah Knauf, PhD candidate, Waikato District Health Board, sarah.knauf@waikatodhb.health.nz, phone: 07) 839 8899 ext. 96536.
Te Puna Oranga Māori Health Service: 07) 8343628 research@waikatodhb.health.nz

Appendix M: Focus group information sheet

TE HUATAKI WAIORA
SCHOOL OF HEALTH

THE UNIVERSITY OF WAIKATO
Te Whare Wānanga o Waikato

Reducing conflict and containment in an adult acute inpatient mental health service

PARTICIPANT INFORMATION SHEET - TANGATA WHAI ORA

Tēnā koe,

You are invited to participate in a University of Waikato PhD study looking at reducing conflict (such as physical or verbal aggression, self-harm, suicide attempt, absconding, substance misuse and medication refusal) and containment (including administration of sedative medication, coerced intramuscular medication, increased level of observation, restraint and seclusion) in an adult inpatient mental health service. Before you decide whether or not to participate in this study, it is important that you understand more about the research and what participation involves. In order to help you make your decision, please take time to read this information sheet carefully. Understand that your participation or non-participation in this study will not impact your receipt of services.

What is the study about and what is the purpose of it?
This study aims to design a Safewards model to fit the New Zealand context and implement it at the Waikato District Health Board (DHB) acute adult inpatient mental health unit. Safewards is a package of ten interventions that are implemented to reduce rates of conflict and containment events. This study will explore tangata whai ora (service user) and staff perspective of the developed Safewards model and identify if rates of conflict and containment reduce after a period of implementation in an acute adult inpatient mental health unit at Waikato Hospital. This research seeks to address the following questions: What does a New Zealand Safewards model require? What are the perspectives of inpatient tangata whai ora and staff on their experience of the developed New Zealand Safewards model? Do conflict and containment rates reduce after implementation of the New Zealand Safewards model? What changes occur to the ward atmosphere after the Safewards intervention?

Why have you been selected to take part in this study?
You have been identified as an eligible participant by the research student. This means that you meet the following requirements: (1) Are >18 years of age; (2) Have been admitted to ward 36 within the last six months; and (3) Can communicate in English.

Who is organising the research?
The Primary Researcher for this study is Tony O'Brien who will supervise and guide myself (Sarah Knauf, student researcher) in carrying out the study. The project has received approval from the University of Waikato Human Participants Ethics Committee. The Waikato District Health has given approval.

What happens if you decide to take part?
If you decide to take part you will be contacted by the kaitakawaenga who will invite you to take part in a focus group. The focus group will be held in a meeting room at the Henry Rongomau Bennett Centre and may take up to ninety minutes. A whanau member is welcome to be present to support you and participate. Focus groups will be audio recorded. All participants will receive information/outcomes of this study, you can opt-out of this on the consent form.

What are the risks and benefits of the study and taking part?
The benefit of taking part in the study is that you may contribute to improved care for future tangata whai ora, promote a safe environment through the reduction of conflict and containment, create a culturally safe model of care and support least restrictive and evidence-based practice. A risk is that talking about conflict and containment may cause emotional discomfort. In this case, kaitakawaenga will seek support from whanau that you identify on your consent form.

You are under no obligation to accept this invitation. Participation is voluntary. You are entitled to ask questions about the study at any time. You can contact the researchers at any time. You can correct any personal information that you have given to the researcher. You may withdraw your consent and choose not to participate at any time without consequence, including during the focus group however, you cannot withdraw any contributions you may have made up until that point. You do not need to answer any particular question(s) that you do not wish to. You do not need to engage in any particular activity that you do not wish to. If researchers believe incidental findings or illegal activity have been discovered, they have a responsibility to act accordingly in response to them. You may request a copy of the findings and these will be made available to you. For any questions or concerns relating to your rights as a participant, you may either contact the researchers directly with the contact information provided or contact an Independent Health and Disability Advocate. Phone: 0800 555 050 or e-mail: advocacy@hdc.org.nz

How will information be stored and destroyed?
The consent forms will be stored at the University of Waikato in a locked filing cabinet and will be accessed only by the research team. The consent forms and transcripts will be shredded at The University of Waikato six years after the completion of the study. All digital files relevant to the study will be stored in a password-protected file and computer and will be deleted after six years. Audio recordings will be stored in a password-protected file and computer at The University of Waikato. Audio recordings will be deleted within 12 months of the completion of the study. You will be given the option to choose transcription by PhD student only, or transcription by PhD student with Otter.ai. Otter.ai (https://otter.ai) is a third-party speech-to-text automatic transcription application. Recordings will be deleted from Otter immediately after transcription, removing them permanently from the transcription service files.

What is the time frame of the study?
Data collection will commence in April 2022. The presentation of the study and findings will be complete in June 2024.

Need more information?
Contact:
PhD Student: Sarah Knauf, PhD candidate, Waikato District Health Board, sarah.knauf@waikatodhb.health.nz, phone: 07) 839 8899 ext. 96536

Have concerns or issues?
Contact:
Supervisor: Associate Professor Anthony O'Brien, Te Huataki Waiora School of Health, The University of Waikato, anthony.obrien@waikato.ac.nz, phone: 027 277 0269
Supervisor: Professor Allison Kirkman, Te Huataki Waiora School of Health, The University of Waikato, allison.kirkman@waikato.ac.nz, phone: 021 322 905

Te Puna Oranga Māori Health Service: 07) 8343628 research@waikatodhb.health.nz

Need further support?
If you want to talk to someone who isn't involved with the study, you can contact an independent health and disability advocate on:

Phone:	0800 555 050
Fax:	0800 2 SUPPORT (0800 2787 7678)
Email:	advocacy@hdc.org.nz

Free call or text **1737** anytime, 24 hours a day, to talk or text with a trained counsellor.

This research project has been approved by the Human Research Ethics Committee (Health) at the University of Waikato as HREC(Health)2021#97. Any questions or concerns about the ethical conduct of this research may be sent to the Secretary of the Committee, email humanethics@waikato.ac.nz, postal address, Human Research Ethics Committee (Health), University of Waikato, Te Whare Wananga o Waikato, Private Bag 3105, Hamilton 3240."

and support least restrictive and evidence-based practice. A risk is that talking with people about conflict and containment may cause emotional discomfort. In this case, seek support from whanau that have been designated .

If you participate, what are your rights?

You are under no obligation to accept this invitation. Participation is voluntary. You are entitled to ask questions about the study at any time. You can contact the researchers at any time. You can correct any personal information that they have given to the researcher. You may withdraw your consent and choose not to participate at any time without consequence, including during the focus group however, you cannot withdraw any contributions you may have made up until that point. You do not need to answer any particular question(s) that they do not wish to. You do not need to engage in any particular activity that they do not wish to. If researchers believe incidental findings or illegal activity have been discovered, they have a responsibility to act accordingly in response to them. You may request a copy of the findings and these will be made available to you. For any questions or concerns relating to your rights as a participant, you may either contact the researchers directly with the contact information provided or contact an Independent Health and Disability Advocate. Phone: 0800 555 050 or e-mail: advocacy@hdc.org.nz

How will information be stored and destroyed?

The consent forms will be stored at the University of Waikato in a locked filing cabinet and will be accessed only by the research team. The consent forms and transcripts will be shredded at The University of Waikato six years after the completion of the study. All digital files relevant to the study will be stored in a password-protected file and computer and will be deleted after six years. Audio recordings will be stored in a password-protected file and computer at The University of Waikato. Audio recordings will be deleted within 12 months of the completion of the study. You will be given the option to choose transcription by PhD student only, or transcription by PhD student with Otter.ai. Otter.ai (https://otter.ai) is a third-party speech-to-text automatic transcription application. Recordings will be deleted from Otter immediately after transcription, removing them permanently from the transcription service files.

What is the time frame of the study?

Data collection will commence in April 2022. The presentation of the study and findings will be complete in June 2024.

Need more information?

Contact:
PhD Student: Sarah Knauf, PhD candidate, Waikato District Health Board, sarah.knauf@waikatodhb.health.nz, phone: 07) 839 8899 ext. 96536

Have concerns or issues?

Contact:
Supervisor: Associate Professor Anthony O'Brien, Te Huataki Waiora School of Health, The University of Waikato, anthony.obrien@waikato.ac.nz, phone: 027 277 0269
Supervisor: Professor Allison Kirkman, Te Huataki Waiora School of Health, The University of Waikato, allison.kirkman@waikato.ac.nz, phone: 021 322 905

Te Puna Oranga Māori Health Service: 07) 8343628 research@waikatodhb.health.nz

Need further support?

If you want to talk to someone who isn't involved with the study, you can contact an independent health and disability advocate on:

Phone:	0800 555 050
Fax:	0800 2 SUPPORT (0800 2787 7678)
Email:	advocacy@hdc.org.nz

Free call or text **1737** anytime, 24 hours a day, to talk or text with a trained counsellor.

This research project has been approved by the Human Research Ethics Committee (Health) at the University of Waikato as HREC(Health)2021#97. Any questions or concerns about the ethical conduct of this research may be sent to the Secretary of the Committee, email humanethics@waikato.ac.nz, postal address, Human Research Ethics Committee (Health), University of Waikato, Te Whare Wananga o Waikato, Private Bag 3105, Hamilton 3240."

TE HUATAKI WAIORA
SCHOOL OF HEALTH

THE UNIVERSITY OF WAIKATO
Te Whare Wānanga o Waikato

Reducing conflict and containment in an adult acute inpatient mental health service

PARTICIPANT INFORMATION SHEET – KAITAKAWAENGA

Tēnā koe,

You are invited to participate in a University of Waikato PhD research study looking at reducing conflict (such as physical or verbal aggression, self-harm, suicide attempt, absconding, substance misuse and medication refusal) and containment (including administration of sedative medication, coerced intramuscular medication, increased level of observation, restraint and seclusion) in an adult inpatient mental health service. Before you decide whether or not to participate in this study, it is important that you understand more about the research and what participation involves. In order to help you make your decision, please take time to read this information sheet carefully. Understand that your participation or non-participation in this study will not impact on your employment within the Waikato DHB.

What is the study about and what is the purpose of it?

This study aims to design a Safewards model to fit the New Zealand context and implement it at the Waikato District Health Board (DHB) acute adult inpatient mental health unit. Safewards is a package of ten interventions that are implemented to reduce rates of conflict and containment events. This study will explore tangata whai ora (service user) and staff perspective of the developed Safewards model and identify if rates of conflict and containment reduce after a period of implementation in an acute adult inpatient mental health unit at Waikato Hospital. This research seeks to address the following questions: What does a New Zealand Safewards model require? What are the perspectives of inpatient tangata whai ora and staff on their experience of the developed New Zealand Safewards model? Do conflict and containment rates reduce after implementation of the New Zealand Safewards model? What changes occur to the ward atmosphere after the Safewards intervention?

What is my role?

Your role will be to host one semi-structured focus group to support a safe space for Māori views. Tangata whai ora, whanau and Māori staff will be invited. At least ten participants will attend. You will invite participants to take part in the focus group after they have been identified as eligible by the student researcher as meeting following requirements: (1) Are >18 years of age; (2) Have been admitted to ward 36 within the last six months; and (3) Can communicate in English. The consultant psychiatrist will then indicate if they have the capacity to give informed consent (if inpatient).

Who is organising the research?

The Primary Researcher for this study is Tony O'Brien who will supervise and guide myself (Sarah Knauf, student researcher) in carrying out the study. The project has received approval from the University of Waikato Human Participants Ethics Committee. The Waikato District Health has given approval.

What happens if you decide to take part?

The focus groups will be held in a meeting room at the Henry Rongomau Bennett Centre and may take up to ninety minutes. Focus groups will be audio recorded. All participants will receive information/outcomes of this study, you can opt-out of this on the consent form.

What are the risks and benefits of the study and taking part?

The benefit of taking part in the study is that you may contribute to improved care for future tangata whai ora, promote a safe environment through the reduction of conflict and containment, create a culturally safe model of care

If you participate, what are your rights?

You are under no obligation to accept this invitation. Participation is voluntary. You are entitled to ask questions about the study at any time. You can contact the researchers at any time. You can correct any personal information that you have given to the researcher. You may withdraw your consent and choose not to participate at any time without consequence, including during the focus group however, you cannot withdraw any contributions you may have made up until that point. You do not need to answer any particular question(s) that you do not wish to. You do not need to engage in any particular activity that you do not wish to. If researchers believe incidental findings or illegal activity have been discovered, they have a responsibility to act accordingly in response to them. You may request a copy of the findings and these will be made available to you. For any questions or concerns relating to your rights as a participant, you may either contact the researchers directly with the contact information provided or contact an Independent Health and Disability Advocate. Phone: 0800 555 050 or e-mail: advocacy@hdc.org.nz

How will information be stored and destroyed?

The consent forms will be stored at the University of Waikato in a locked filing cabinet and will be accessed only by the research team. The consent forms and transcripts will be shredded at The University of Waikato six years after the completion of the study. All digital files relevant to the study will be stored in a password-protected file and computer and will be deleted after six years. Audio recordings will be stored in a password-protected file and computer at The University of Waikato. Audio recordings will be deleted within 12 months of the completion of the study. You will be given the option to choose transcription by PhD student only, or transcription by PhD student with Otter.ai. Otter.ai (https://otter.ai) is a third-party speech-to-text automatic transcription application. Recordings will be deleted from Otter immediately after transcription, removing them permanently from the transcription service files.

What is the time frame of the study?

Data collection will commence in April 2022. The presentation of the study and findings will be complete in June 2024.

Need more information?

Contact:
PhD Student: Sarah Knauf, PhD candidate, Waikato District Health Board, sarah.knauf@waikatodhb.health.nz, phone: 07) 839 8899 ext. 96536

Have concerns or issues?

Contact:
Supervisor: Associate Professor Anthony O'Brien, Te Huataki Waiora School of Health, The University of Waikato, anthony.obrien@waikato.ac.nz, phone: 027 277 0269
Supervisor: Professor Allison Kirkman, Te Huataki Waiora School of Health, The University of Waikato, allison.kirkman@waikato.ac.nz, phone: 021 322 905

Te Puna Oranga Māori Health Service: 07) 8343628 research@waikatodhb.health.nz

Need further support?

If you want to talk to someone who isn't involved with the study, you can contact an independent health and disability advocate on:

Phone:	0800 555 050
Fax:	0800 2 SUPPORT (0800 2787 7678)
Email:	advocacy@hdc.org.nz

This research project has been approved by the Human Research Ethics Committee (Health) at the University of Waikato as HREC(Health)2021#97. Any questions or concerns about the ethical conduct of this research may be sent to the Secretary of the Committee, email humanethics@waikato.ac.nz, postal address, Human Research Ethics Committee (Health), University of Waikato, Te Whare Wananga o Waikato, Private Bag 3105, Hamilton 3240."

TE HUATAKI WAIORA
SCHOOL OF HEALTH

THE UNIVERSITY OF WAIKATO
Te Whare Wānanga o Waikato

Reducing conflict and containment in an adult acute inpatient mental health service

PARTICIPANT INFORMATION SHEET - STAFF

Tēnā koe,

You are invited to participate in a University of Waikato PhD research study looking at reducing conflict (such as physical or verbal aggression, self-harm, suicide attempt, absconding, substance misuse and medication refusal) and containment (including administration of sedative medication, coerced intramuscular medication, increased level of observation, restraint and seclusion) in an adult inpatient mental health service. Before you decide whether or not to participate in this study, it is important that you understand more about the research and what participation involves. In order to help you make your decision, please take time to read this information sheet carefully. Understand that your participation or non-participation in this study will not impact on your employment within the Waikato DHB.

What is the study about and what is the purpose of it?
This study aims to design a Safewards model to fit the New Zealand context and implement it at the Waikato District Health Board (DHB) acute adult inpatient mental health unit. Safewards is a package of ten interventions that are implemented to reduce rates of conflict and containment events. This study will explore tangata whai ora (service user) and staff perspective of the developed Safewards model and identify if rates of conflict and containment reduce after a period of implementation in an acute adult inpatient mental health unit at Waikato Hospital. This research seeks to address the following questions: What does a New Zealand Safewards model require? What are the perspectives of inpatient tangata whai ora and staff on their experience of the developed New Zealand Safewards model? Do conflict and containment rates reduce after implementation of the New Zealand Safewards model? What changes occur to the ward atmosphere after the Safewards intervention?

Why have you been selected to take part in this study?
You have been identified as an eligible participant by the research student. This means that you meet the study requirements as you are currently employed to work on ward 36.

Who is organising the research?
The Primary Researcher for this study is Tony O'Brien who will supervise and guide myself (Sarah Knauf, student researcher) in carrying out the study. The project has received approval from the University of Waikato Human Participants Ethics Committee. The Waikato District Health has given approval.

What happens if you decide to take part?
If you decide to take part you will be contacted by associate charge nurse manager who will invite you to take part in one of three staff focus groups. The focus groups will be held in a meeting room at the Henry Rongomau Bennett Centre and may take up to ninety minutes. Focus groups will be audio recorded. All participants will receive information/outcomes of this study, you can opt-out of this on the consent form.

What are the risks and benefits of the study and taking part?
The benefit of taking part in the study is that you may contribute to improved care for future tangata whai ora, promote a safe environment through the reduction of conflict and containment, create a culturally safe model of care and support least restrictive and evidence-based practice. A risk is that talking about conflict and containment may cause emotional discomfort. In this case, seek support from your colleagues or nurse managers.

If you participate, what are your rights?

Appendix N: Research confidentiality agreement

Research Confidentiality Agreement

TE HUATAKI WAIORA
SCHOOL OF HEALTH

THE UNIVERSITY OF WAIKATO
Te Whare Wānanga o Waikato

Reducing conflict and containment in an adult acute inpatient mental health service

RESEARCH CONFIDENTIALITY AGREEMENT

Principal investigator: Tony O'Brien
Co-investigator: Allison Kirkman
Student Researcher: Sarah Knauf

I agree to conduct research interviews for the above study. I understand that the information contained within them is confidential and must not be disclosed to, or discussed with, anyone other than the team of researchers engaged in this study. I will maintain the security at all times of all paper, computer and electronic files related to conduct of the interview.

Name: _____[Please print]

Signature: _____

Role: _____

Organisation name: _____

Date: _____

Appendix O: Research capacity to consent

Research Capacity to Consent Form

TE HUATAKI WAIORA SCHOOL OF HEALTH

THE UNIVERSITY OF WAIKATO
Te Whare Wānanga o Waikato

Reducing conflict and containment in an adult acute inpatient mental health service

RESEARCH CAPACITY TO CONSENT

Principal investigator: Tony O'Brien
Co-investigator: Allison Kirkman
Student Researcher: Sarah Knauf

I _____ (*your full name*)

hereby consent for _____(*service user name*)

to take part in the above study as they have the capacity to consent to participate.

Name: _____[Please print]

Signature: _____

Role: _____

Organisation name: _____

Date: _____

Appendix P: Focus group schedule

Ethics Committee Reference Number: HREC(Health)2021#...

Focus Group Schedule

TE HUATAKI WAIORA SCHOOL OF HEALTH

THE UNIVERSITY OF WAIKATO
Te Whare Wānanga o Waikato

Reducing conflict and containment in an adult acute inpatient mental health service

FOCUS GROUP SCHEDULE

Starting the interview:

- A koha (such as a biscuit and hot drink) should be available.
- Introduce yourself, your employer, and your role in the research.
- Explain the research: You are invited here to participate in a study looking at reducing conflict (such as physical or verbal aggression, self-harm, suicide attempt, absconding, substance misuse and medication refusal) and containment (including administration of sedative medication, coerced intramuscular medication, increased level of observation, restraint and seclusion) on ward 36. We want to create a therapeutic environment that is safe for everyone, where care is evidence-based and least restrictive. Today our aim is to design a Safewards model to fit the New Zealand context and it will then be implemented on ward 36 for 12 months.
- Take the time to ensure the consent form is understood and signed and that the participant gives their consent to be recorded. Remind them that they can withdraw consent to participate at any time.
- Start the focus group with a karakia.
- Research student will take time now to explain the original Safewards model.
- Provide an opportunity here for any questions.
- Finally, start the audio recorder.

Questions	Prompts
What does a New Zealand Safewards model require?	• How does it fit in with Waikato DHB strategic direction? • What are the outcomes that Safewards is seeking?
What changes need to be made to the language?	• What will suit New Zealand culture better?
Tell me about the challenges of implementing each of these interventions?	• Positives and pitfalls
How effective do you think the implementation of a New Zealand Safewards model will be?	• Discuss positive and negative aspects
Is there anything else you would like to say or add?	

- Stop the audio recorder.
- Thank participants for their time.
- Close the focus group.
- Collect consent forms.

All information that you provide us with is strictly confidential and will be securely stored in such a way that only the researchers directly involved in this project will have access to it. The data included in the final project will not be linked to you.

Appendix Q: Participant consent form

Ethics Committee Reference Number: HREC(Health)2021#...

Consent Form for Participants

TE HUATAKI WAIORA SCHOOL OF HEALTH

PhD student:
Sarah Knauf
Supervisor:
Associate Professor Anthony O'Brien
Supervisor:
Professor Allison Kirkman

THE UNIVERSITY OF WAIKATO
Te Whare Wānanga o Waikato

Reducing conflict and containment in an adult acute inpatient mental health service

CONSENT FORM FOR PARTICIPANTS

I have read the **Participant Information Sheet** for this study and have had the details of the study explained to me. My questions about the study have been answered to my satisfaction, and I understand that I may ask further questions at any time.

I am aware that:

1. I have had the opportunity to use whānau support or a friend to help me ask questions and understand the study.
2. I understand that taking part in this study is voluntary (my choice), and that I may withdraw from the study at any time up until the end of the focus group.
3. I understand that my participation in this study is confidential and that no material that could identify me will be used in any reports on this study.
4. I understand that all participants will receive information/outcomes of this study. Opt-out by ticking here: ◯
5. I have had time to consider whether to take part in the study.
6. I know who to contact if I experience any distress or anxiety from the study.
7. I know who to contact if I have any questions about the study.
8. I understand that this focus group with be audio recoded. I give permission for my audio recording to be transcribed using Otter.ai, a third-party speech-to-text transcription application (https://otter.ai/). If you do not agree to this, please tick no and the interview will be transcribed manually by the researcher (i.e. not using third party software). Yes ◯ No ◯

I agree to participate in this study under the conditions set out in the **Participant Information Sheet**.

Participant's Signature: _____

Participant's Name: _____

Date: _____

Age: _____Gender: _____

Role *(circle):* Tangata whaiora Whānau DHB employee Other:_____

All information that you provide us with is strictly confidential and will be securely stored in such a way that project will have access to it. The data included in the final project will not be

Which ethnic group do you belong to?
Mark the space or spaces which apply to you.

- New Zealand European
- Māori
- Samoan
- Cook Island Maori
- Tongan
- Niuean
- Chinese
- Indian
- other such as *DUTCH, JAPANESE, TOKELAUAN.* Please state:

Ethics Committee Reference Number: HREC(Health)2021#...

Consent Form for Participants

TE HUATAKI WAIORA
SCHOOL OF HEALTH

PhD student:
Sarah Knauf
Supervisor:
Associate Professor Anthony O'Brien
Supervisor:
Professor Allison Kirkman

THE UNIVERSITY OF WAIKATO
Te Whare Wānanga o Waikato

Reducing conflict and containment in an adult acute inpatient mental health service

CONSENT FORM FOR PARTICIPANTS - STAFF

I have read the **Participant Information Sheet** for this University of Waikato PhD study and have had the details of the study explained to me. My questions about the study have been answered to my satisfaction, and I understand that I may ask further questions at any time.

I am aware that:

1. I have had the opportunity to use whānau support or a friend to help me ask questions and understand the study.
2. I understand that taking part in this study is voluntary (my choice), and that I may withdraw from the study at any time up until the end of the focus group.
3. I understand that my participation in this study is confidential and that no material that could identify me will be used in any reports on this study.
4. I understand that all participants will receive information/outcomes of this study. Opt-out by ticking here: ◯
5. I have had time to consider whether to take part in the study.
6. I know who to contact if I experience any distress or anxiety from the study.
7. I know who to contact if I have any questions about the study.
8. I understand that this focus group with be audio recoded and give my consent. I give permission for my audio recording to be transcribed using Otter.ai, a third-party speech-to-text transcription application (https://otter.ai/). If you do not agree to this, please tick no and the interview will be transcribed manually by the researcher (i.e. not using third party software). Yes ◯ No ◯

I agree to participate in this study under the conditions set out in the **Participant Information Sheet**.

Participant's Signature: _____

Participant's Name: _____

Date: _____

Age: _____Gender: _____

Current Role: _____

Years of experience:_____

All information that you provide us with is strictly confidential and will be securely stored in such a way that project will have access to it. The data included in the final project will not be

Which ethnic group do you belong to?
Mark the space or spaces which apply to you.

- New Zealand European
- Māori
- Samoan
- Cook Island Maori
- Tongan
- Niuean
- Chinese
- Indian
- other such as *DUTCH, JAPANESE, TOKELAUAN.* Please state:

Appendix R: Essen Climate Evaluation Scheme

UNIVERSITÄT DUISBURG ESSEN

Essen CES©
Essen Climate Evaluation Scheme
- gender neutral 2020 -

LVR Qualität für Menschen

I agree

		not at all	little	somewhat	quite a lot	very much
1	This ward has a homely atmosphere	☐	☐	☐	☐	☐
2	The patients care for each other	☐	☐	☐	☐	☐
3	Really threatening situations can occur here	☐	☐	☐	☐	☐
4	On this ward patients can openly talk to staff about all their problems	☐	☐	☐	☐	☐
5	Even the weakest patient finds support from his/her fellow patients	☐	☐	☐	☐	☐
6	There are some really aggressive patients on this ward	☐	☐	☐	☐	☐
7	Staff take a personal interest in the progress of patients	☐	☐	☐	☐	☐
8	Patients care about their fellow patients' problems	☐	☐	☐	☐	☐
9	Some patients are afraid of other patients	☐	☐	☐	☐	☐
10	Staff members take a lot of time to deal with patients	☐	☐	☐	☐	☐
11	When patients have a genuine concern, they find support from their fellow patients	☐	☐	☐	☐	☐
12	At times, members of staff are afraid of some of the patients	☐	☐	☐	☐	☐
13	Often, staff seem not to care if patients succeed or fail in treatment	☐	☐	☐	☐	☐
14	There is good peer support among patients	☐	☐	☐	☐	☐
15	Some patients are so excitable that one deals very cautiously with them	☐	☐	☐	☐	☐
16	Staff know patients and their personal histories very well	☐	☐	☐	☐	☐
17	Both patients and staff are comfortable on this ward	☐	☐	☐	☐	☐

Correspondence: Norbert Schalast | Institute of Forensic Psychiatry
University Duisburg-Essen | P.O. Box 10 30 43 | 45030 Essen | Germany

Appendix S: Safewards Patient-Staff Conflict Checklist

SAFEWARDS PATIENT-STAFF CONFLICT (PCC) Shift Report

1. Date shift started (DD/MM/YY, e.g. 25/12/21)

_____

2. Location (circle) **Open side / LSA**

3. Shift (Tick)

AM ◯ *PM* ◯ *Night* ◯

4. Number of staff at start of shift (count each staff member once only) (Circle)

RN/EN.....*0 1 2 3 4 5*

MHA.....*0 1 2 3 4 5*

Bureau RN/EN.....*0 1 2 3 4 5*

Bureau MHA.....*0 1 2 3 4 5*

Student nurses.....*0 1 2 3 4 5*

5. How many incidents of aggression have there been during the shift? (Circle)

Verbal aggression.....*0 1 2 3 4 5 6 7 8 9 10*

Physical aggression against objects

.....*0 1 2 3 4 5 6 7 8 9 10*

Physical aggression against others

.....*0 1 2 3 4 5 6 7 8 9 10*

6. How many suicide attempts or incidents of self-harm have there been during the shift? (Circle)

Suicide attempts.....*0 1 2 3 4 5 6 7 8 9 10*

Self-harm.....*0 1 2 3 4 5 6 7 8 9 10*

7. How many incidents of general rule breaking have there been during the shift? (Circle)

Smoking on the ward *0 1 2 3 4 5 6 7 8 9 10*

Refusing to eat.....*0 1 2 3 4 5 6 7 8 9 10*

Refusing to drink.....*0 1 2 3 4 5 6 7 8 9 10*

Refusing to attend to hygiene.....*0 1 2 3 4 5 6 7 8 9 10*

Refusing to get up and out of bed

.....*0 1 2 3 4 5 6 7 8 9 10*

Refusing to go to bed.....*0 1 2 3 4 5 6 7 8 9 10*

Refusing to see workers.....*0 1 2 3 4 5 6 7 8 9 10*

8. How many incidents of drug or alcohol use have there been during the shift? (Circle)

Alcohol use (confirmed).....*0 1 2 3 4 5 6 7 8 9 10*

Other substance misuse (confirmed)

.....*0 1 2 3 4 5 6 7 8 9 10*

9. How many incidents of absconding behaviour have there been during the shift? (count absconds who depart during this shift only) (Circle)

Attempting to abscond.....*0 1 2 3 4 5 6 7 8 9 10*

Absconded.....*0 1 2 3 4 5 6 7 8 9 10*

10. How many incidents of medication related behaviours have there been during the shift? (Circle)

Refused regular medication (eventually accepted)

.....*0 1 2 3 4 5 6 7 8 9 10*

Refused regular medication (did not accept)

.....*0 1 2 3 4 5 6 7 8 9 10*

Refused PRN medication (eventually accepted)

.....*0 1 2 3 4 5 6 7 8 9 10*

Refused PRN medication (did not accept)

.....*0 1 2 3 4 5 6 7 8 9 10*

Demanding PRN medication.....*0 1 2 3 4 5 6 7 8 9 10*

11. How many uses of these containment measures have there been during the shift? (Circle)

Given PRN medication (psychotropic)

.....*0 1 2 3 4 5 6 7 8 9 10*

Given IM medication (enforced)

.....*0 1 2 3 4 5 6 7 8 9 10*

Sent to LSA.....*0 1 2 3 4 5 6 7 8 9 10*

Seclusion.....*0 1 2 3 4 5 6 7 8 9 10.*

High risk observation.....*0 1 2 3 4 5 6 7 8 9 10*

Extreme high risk observation *0 1 2 3 4 5 6 7 8 9 10*

Activated duress alarm.....*0 1 2 3 4 5 6 7 8 9 10*

Manually restrained.....*0 1 2 3 4 5 6 7 8 9 10*

Time out.....*0 1 2 3 4 5 6 7 8 9 10*

Appendix T: Safewards fidelity checklist

Researcher Visit Fidelity Checklist: Organisational Ward

Please complete one of these checklists each time you visit the ward during the implementation and outcome periods

A1 **Is there at least one Mutual Expectations poster on the wall publicly?**

Yes ☐

No ☐

A2 **Is the 'Talk Down' poster displayed on a wall visible to ward staff?**

Yes ☐

No ☐

A3 **Is the 'Soft Words' poster displayed in the staff office?**

Yes ☐

No ☐

A4 **Are the Discharge Messages visible to service users?**

Yes ☐

No ☐

A5 **Number of Discharge Messages visible?**

	1	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10/>*
Number of discharge messages visible	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

A6 **Is the 'Know Each Other' folder available in a public area of the ward?**

Yes ☐

No ☐

A7 **Number of Know Each Other profiles in the folder?**

	1	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10/>*
Staff	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Service users	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

A8 **Check the Calm Down Methods log book and indicate the number of Calm Down Methods used since your last visit.**

	1	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10/>*
Number of Calm Down Methods used	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

A9 **Check the recent PCCs for incidents of physical aggression, attempted suicide, seclusion, restraint, coerced IM medication or transfer to PICU, then indicate all answers that apply below**

There were no such incidents since the last visit ☐

There were one or more of such incidents ☐

The staff indicate that Reasurrance took place (in at least one case, if more than once such incident occurred) ☐

A10 **Check the Mutual Help meeting log book, and indicate the number of meetings that took place since your last visit**

	1	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10/>*
Number of mutual help meetings logged	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

A11 **Number of handover checklists complete since the last visit**

	1	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10/>*
Number of handover checklists completed	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

A12 **Date**

A13 **Ward Research number**

	0	*1*	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*
First digit	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Second digit	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

A14 **Research Assistant number**

	0	*1*	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*
First digit	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Second digit	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Ward research number

RA Initials

Date

One of these sheets needs to be completed after every ward visit. Please fill in the two boxes below. Refer to the Guidance Notes as required.

B4 **How are staff currently responding to the trial as a whole? Please record the most notable response you encountered during this visit (continue overleaf if necessary).**

B5 **How are staff currently responding to particular Safewards interventions? Please record the most notable response to a particular intervention that you encountered during this visit (continue overleaf if necessary).**

Appendix U: New Zealand Safewards model

AROHA ATU, AROHA MAI

Safewards

SAFEWARDS MODEL OF CARE

11 ACTIONS WE CAN DO

Tikanga hourua Mutual expectations: tangata whaiora and staff agree on behaviour that is expected when on the inpatient unit.

Whakawhanaungatanga Know each other: staff give information about themselves that they are happy to share (e.g. favourite TV show, hobbies, pets). Tangata whaiora are also encouraged to share these.

Kupu Ngaawari Soft words: visual clues for staff about sensitive and respectful communication.

Mauri tau De-escalation: staff use their communication skills to help tangata whaiora calm down when they are upset, agitated or distressed.

Kaitiakitanga Bad news mitigation: making sure that staff are aware when tangata whaiora have or may receive bad news, and make sure they are offered support and a quiet place to express their feelings.

Rongo Pou Tokomanawa Sensory modulation: a box of items that tangata whaiora can use to feel calmer and more relaxed.

Whakaahuru Debrief: reassurance about incidents with tangata whaiora in a group or one-on-one.

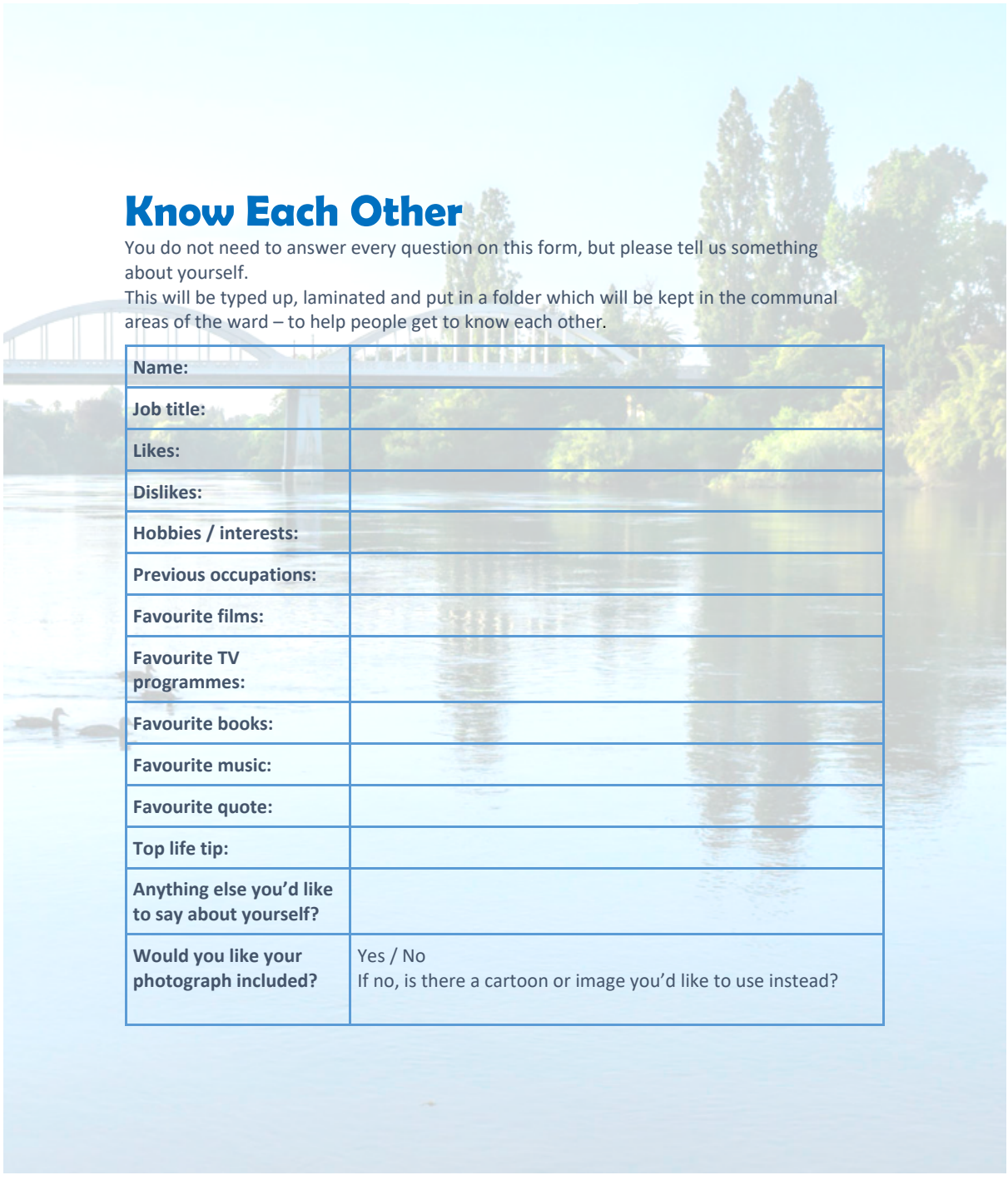
Kupu Whakamana Positive words: staff focus on client strengths using positive words during clinical handover.

Kupu manawa ora Messages of Hope: a display of positive and helpful messages written by tangata whaiora or their carers.

Awhi mai, awhi atu Mutual help meetings: regular meetings on the unit where tangata whaiora and staff are encouraged to identify ways of helping each other and participating in whakawhanaungatanga.

Te Kawa Powhiri process: process to welcome tangata whaiora and whaanau into adult acute Inpatient wards at admission.

Appendix V: Know Each Other form



Appendix W: Monthly newsletter example

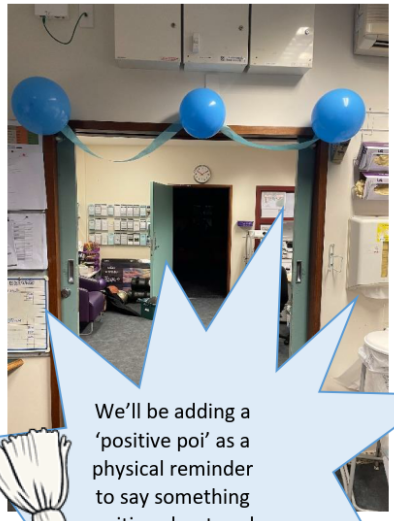
SAFEWARDS

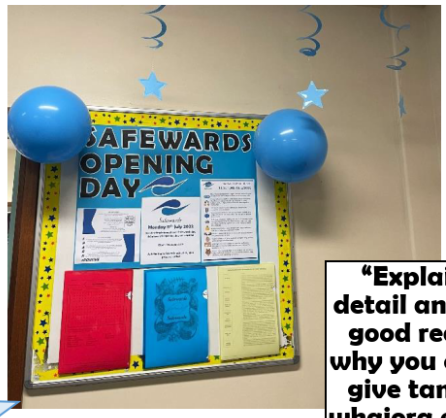
A monthly newsletter to keep you up-to-date with Safewards

WARD 36, HRBC
JULY 2022
NEWSLETTER #4

OPENING DAY

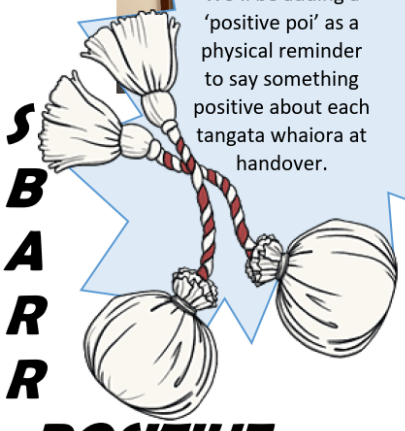
We celebrated both international Safewards day and ward 36 Safewards opening day on July 11th. Starting with Positive Words and Soft Words. Safewards activities and sausage sizzle were provided.



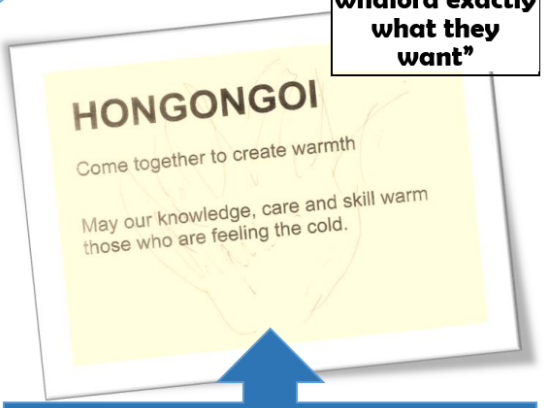


"Explain in detail and with good reasons why you cannot give tangata whaiora exactly what they want"

We'll be adding a 'positive poi' as a physical reminder to say something positive about each tangata whaiora at handover.



S
B
A
R
R
+POSITIVE



A second poster for cultural safety now sits alongside Soft Words that aligns with maramataka (Māori lunar calendar). Perfect timing after we celebrated the first Matariki public holiday in June

Upcoming key dates:

August 11th: August ward climate survey (monthly)

August 11th: Next two interventions start:

(1) **Bad News Mitigation** and (2) **Debriefing**

Mondays: Weekly change of Soft Words poster.

+ There are still spaces to sign up to be a champion

Useful Links:

https://www.safewards.net/ The original model

https://www.facebook.com/groups/safewards/ Real life examples

https://www.health.vic.gov.au/practice-and-service-quality/safewards-videos Educational resources

Got questions? See RN Sarah K.